

The Relationship Between Internet Pornography and Adolescent Cyberbullying Behavior

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Abstrak

Pengguna internet mencapai 4,7 juta dari total 7,8 juta populasi dunia. Internet mempermudah komunikasi, namun cyberbullying merupakan sisi gelap pengguna pada remaja. Penelitian bersifat deskriptif analitik dengan pendekatan cross sectional. Sampel terdiri dari 92 responden yang mengisi kuesioner yang disebar online pada 20–27 Januari 2023. Tujuan utama penelitian untuk mengetahui hubungan pornografi internet dengan perilaku cyberbullying pada remaja. Pengolahan data statistik menggunakan SPSS versi 26 dengan metode chi-square dan regresi logistik berganda. Terdapat 47,8% responden mengakses pornografi internet dan 22,8% responden pernah melakukan cyberbullying. Hasil didapatkan hubungan pornografi internet dengan perilaku cyberbullying pada remaja ($p < 0,05$). Pornografi internet berisiko 4 kali lebih besar terhadap perilaku cyberbullying pada remaja. Internet mempermudah koneksi terhadap pornografi melalui 3A: accessibility, affordability, dan anonymity. Wright dan Donnerstein (2014) mendapatkan 42% remaja melihat konten pornografi di internet, 27% diantaranya mengakses secara tidak sengaja. Pornografi dapat mempengaruhi pikiran atau perilaku. Pelaku cyberbullying juga lebih cenderung mengakses pornografi internet. Remaja merupakan masa pertumbuhan dan juga masa pengambilan risiko. Pada masa ini, mereka tidak sepenuhnya memahami antara perbuatan dan konsekuensi yang ditimbulkan.

Kata Kunci: cyberbullying; pornografi; internet; perundungan; remaja

Abstract

The internet plays a pivotal role in facilitating human communication, education, and entertainment. Internet users reach 4,7 million out of a total world population of 7,8 million. Nonetheless, the influence of internet is twofold, as it engenders adverse consequences for adolescents. Cyberbullying and internet pornography, in particular, have been indentified as significant contributor to the deterioration of mental health. A cross-sectional analytic descriptive study had done. There was a ninety-two respondent who fulfilled the online questioner from January 20th to 27th 2023. SPSS version 26, chi-square test and multiple logistic regression test done to do statistical analysis. Around 47.8% respondent accessed internet pornography and 22.8% had done cyberbullying. There was a relationship between internet pornography with adolescent cyberbullying behavior ($p < 0.05$). Internet pornography risked around four times higher than adolescent cyberbullying behavior. Internet can easily connect to pornography by 3A: accessibility, affordability and anonymity. Wright and Donnerstein (2014) stated nearly 42% of adolescent watched pornography on internet, which around 27% watched it accidentally. Pornography can change someone's mind or behavior. Shek and Ma (2014) concluded that cyberbullying person were more likely to access internet pornography. Adolescent is an aged of growth and taking risk. They do not fully understand about their actions and consequences of what they have done.

Keywords: cyberbullying; bullying; pornography; internet; adolescent

Introduction

The period of childhood and adolescence is characterized by the ongoing physical and psychological development of individuals. It is crucial to recognize that

children and adolescents are not merely miniature versions of adults, as their growth processes are unique. Consequently, it is essential to acknowledge that mental health challenges in children and adolescents often manifest during the critical phases of personality development (1,2).

Adolescence is a transitional period from childhood to adulthood in all aspects, including biological, cognitive, and socio-emotional dimensions. Other aspects that develop during adolescence include mental, emotional, social, and physical maturity. (3)

As reported by the Association of Internet Service Providers in Indonesia (APJII) in 2016, internet usage in Indonesia has witnessed consistent growth from 1998 to 2016, with more than 132 million users in a country with a total population of 256.2 million. The advent of the COVID-19 pandemic and its aftermath has resulted in substantial shifts in societal behavior, leading to an increased dependence on the internet. (4)

The internet serves as a dual-edged sword, offering advantages in communication, education, and entertainment, while simultaneously harboring a dark side for adolescent users. Unregulated and inappropriate internet usage, including activities such as hate speech, cyberbullying, and exposure to internet pornography, carries adverse consequences. These may encompass the risk of internet addiction and significant impacts on mental well-being. (5–8)

Instances of internet addiction have become increasingly prevalent, with children and adolescents isolating themselves in their rooms to engage in online gaming or diverting their allowances toward internet data packages. The pervasive issue of cyberbullying looms large, and its manifestations can be influenced by both personal and situational factors. Numerous cases of internet addiction have come to the forefront, with children and adolescents opting for seclusion within their confines to engage in online gaming or to allocate their allowances toward internet subscriptions. In addition to internet addiction, various internet-related challenges persist, including the issue of pornography access. Regrettably, many children today embark on a path of early exposure to explicit content, precipitating the potential for prefrontal cortex impairment and the concomitant difficulties in effective planning, impulse management, and emotional regulation. (4,9)

Bullying, a phenomenon comprising physical and psychological, verbal, non-verbal, and social components, represents a concerning societal issue. Perpetrators, acting individually or collectively, often target individuals perceived as weaker, younger, or less esteemed. While the term "bullying" initially took root in Western countries, particularly in Europe, it has progressively gained worldwide recognition. Bullying is classified as a form of aggressive behavior, with its prevalence extending even to Indonesia. Common modes of bullying encompass verbal, non-verbal, physical, social, and cyberbullying. (10,11)

In the contemporary landscape, the internet is ubiquitous in the lives of adolescents, heightening the likelihood of access to explicit content. Concurrently, bullying remains prevalent among adolescents, with technological advancements ushering in a transformation of traditional bullying into cyberbullying. Presently, comprehensive studies exploring the intricate interplay between internet pornography and cyberbullying behavior in adolescents remain limited. Hence, motivated by this background, this study seeks to scrutinize the relationship between internet pornography and cyberbullying behavior in adolescents.

Predicated upon the contextual backdrop and the research questions, the primary inquiry we pose is as follows: What is the nature of the relationship between internet pornography and cyberbullying behavior in adolescents? The principal aim of this study is to explore and comprehend the intricate interplay between internet pornography and cyberbullying behavior among adolescents.

From a theoretical standpoint, this research holds the promise of enhancing our understanding of the demographic underpinnings of cyberbullying behaviors in the adolescent cohort, the demographic characteristics of internet pornography users within the same demographic, and the nuanced interrelationship between internet pornography exposure and the manifestation of cyberbullying behaviors among adolescents. On a practical front, the findings of this study may serve as a valuable resource for shaping interventions and assessments aimed at mitigating the prevalence of cyberbullying among adolescents.

Research Methods

This research is characterized as a descriptive-analytic study, conducted using a cross-sectional approach. It took place in an online setting during the months of January and February in the year 2023. The study population encompasses all individuals who completed the questionnaire within the specified timeframe, ranging from January 20th to January 27th, 2023. The sampling strategy employed was total sampling, thereby encompassing the inclusion of all respondents as study participants throughout the defined research period. Within the context of this investigation, the research variables encompass both independent and dependent variables. The independent variable pertains to internet pornography among adolescents, while the dependent variable examines the manifestation of cyberbullying behavior in adolescents.

These sociodemographic variables encompass attributes such as age, gender, educational background, a history of internet pornography access, and involvement in cyberbullying. Data collection was facilitated through the administration of a structured and meticulously designed questionnaire. Prior to commencing data analysis, a rigorous data integrity and completeness assessment was conducted. Subsequently, the collated data underwent the processes of coding, tabulation, and were entered into the SPSS software. The data analysis framework adopted a combined approach, encompassing both descriptive and analytical methodologies, with the software platform utilized being SPSS version 26. The univariate analysis was leveraged to unveil the sociodemographic profile of adolescents who access internet pornography and those who engage in cyberbullying. The results emanating from this analysis are represented in terms of distribution patterns and frequencies, underscoring the primary data source derived from the responses of the participants to the administered questionnaires. Bivariate analysis, in turn, was rigorously executed to explore the complex relationship between internet pornography and the occurrence of cyberbullying behavior in adolescents. This analytical process was underpinned by the utilization of advanced statistical methods, including chi-square tests and multiple logistic regression.

The ethical dimensions of this research received meticulous attention and adherence. Prior to initiating the study, the researcher diligently obtained ethical clearance from the Research Ethics Committee for Health at RSUD Wangaya. In parallel, formal research permissions were explicitly secured from the Director of

RSUD Wangaya. With unwavering commitment to ethical principles, the study respondents were approached with utmost care, and their informed consent and willingness to participate were scrupulously sought. It is paramount to emphasize that personal data pertaining to respondents and patients were meticulously managed with the highest degree of confidentiality, thus ensuring the steadfast protection and prioritization of patients' interests throughout the research endeavor.

Results

Respondent characteristics includes age, gender, whether or not they have ever been involved as perpetrators or victims of cyberbullying, the level of internet addiction, and access to internet pornography, as presented in Table 1.

Table 1. Respondent Characteristics

Characteristics	n	%
Independent Variable		
Age		
- Young Adolescent	63	68,5
- Late Adolescent	29	31,5
Gender		
- Male	22	23,9
- Female	70	76,1
Pendidikan		
- 1 SMP	0	0
- 2 SMP	12	13
- 3 SMP	2	2,2
- 1 SMA	41	44,6
- 2 SMA	14	15,2
- 3 SMA	23	25
Cyberbullying Victim		
- Never	63	68,5
- Had Before	29	31,5
Internet Addiction (ITA)		
- Normal	34	36,9
- Addiction	58	63,1
Pornography Internet Access		
- Never	48	52,2
- Had Before	44	47,8
Dependent Variable		
<i>Cyberbullying</i>		
- Never	71	77,2
- Had Before	21	22,8

(Source: Primary Data, 2023)

Table 2 provides an overview of the 92 respondents, with the majority falling within the early adolescent age group (68.5%). The predominant gender among the respondents is female (76.1%). Most respondents have completed their first year of high school (44.6%). It is noteworthy that 31.5% of the respondents reported being victims of

cyberbullying, and 22.8% acknowledged engaging in cyberbullying behavior. Furthermore, a significant majority of the respondents exhibit signs of internet addiction (63.1%), and 47.8% have accessed internet pornography.

Table 2 The Relationship Between Internet Pornography and Adolescent Cyberbullying Behavior

Independent Variable	Dependent Variable	p-Value	Exp(B)
Pornography Internet Access	<i>Cyberbullying</i>	0,001	4,170

(Source: Primary Data, 2023)

Table 2 displays the outcomes of statistical analysis utilizing the Chi-Square method, assessing the relationship between internet pornography access and cyberbullying behavior. The results indicate a significance level of $p < 0.05$, implying a substantial correlation between internet pornography access and cyberbullying behavior among adolescents. A multiple logistic regression analysis reveals an Exp(B) value of 4.170, signifying that internet pornography access poses a fourfold increased risk of engaging in cyberbullying behavior among adolescents.

Discussion

The life cycle constitutes a dynamic process of transformations occurring throughout the human lifespan, encompassing diverse changes in needs that can be categorized into physical, psychosexual, psychosocial, cognitive, and moral aspects. (1,2). In the framework of psycho-social development, as articulated by Erik H. Erikson, these transitions adhere to a predetermined sequence of life stages. This implies that individuals innately possess the biological and psychological readiness required to advance towards the subsequent, higher-order functional level. Each phase is aptly named to correspond to the dominant function to be achieved and is inextricably linked with the developmental demands and needs unique to that phase. Psycho-social development unfolds across multiple stages, encompassing basic trust vs. mistrust (ages 0 - 2 years), autonomy vs. shame and doubt (ages 2 - 4 years), initiative vs. guilt (ages 4 - 6 years), industry vs. inferiority (ages 6 - 12 years), identity vs. role confusion (ages 12 - 18 years), intimacy vs. isolation (ages 18 - 40 years), generativity vs. stagnation (ages 40 - 65 years), and ego integrity vs. despair (above 65 years). (1,2)

While the internet introduces favorable aspects by facilitating communication and interpersonal relationships, it also engenders negative dimensions, such as interpersonal conflicts—both interpersonally and intrapersonally. The latter pertains to conflicts within an individual concerning their emotional self-regulation and management. The internet offers swift access to information; however, excessive recreational use may give rise to complications. (12)

A survey conducted by the Association of Internet Service Providers in Indonesia (APJII) in 2016 indicates a persistent surge in internet usage from 1998 to 2016, with over 132 million users in Indonesia, comprising approximately one-third of internet users globally who are aged below 18 years. (4,13)

The advent of the COVID-19 pandemic and the post-pandemic era has significantly transformed the populace's habits, resulting in an increased reliance on the internet. A surge in cases of internet addiction has been observed, with children and adolescents secluding themselves in their rooms for gaming or allocating their allowances to purchase internet packages. Alongside internet addiction, other issues, including pornography, have emerged. A disconcerting number of children are accessing pornography at a young age, leading to potential damage to the prefrontal cortex, manifesting as challenges in planning, impulse control, and emotional management. (4)

Widespread internet use, predominantly via smartphones, among late adolescents has elevated gadgets to a pivotal status. This incessant usage serves the purpose of providing comfort, and cravings may surface in the absence of this engagement. The World Health Organization (WHO) has classified this phenomenon as addiction. Excessive internet usage can profoundly affect both personal and social dimensions of life. Individuals displaying signs of smartphone overuse may indeed be grappling with addiction. (14)

Excessive internet usage can exert an impact on certain brain regions analogous to those influenced by Substance Use Disorder (SUD). This interference disrupts the brain's capacity to regulate addictive behaviors. Dysfunction within the dopamine circuitry is postulated to occur in individuals displaying addictive behaviors, such as internet gaming or pornography, thereby stimulating the reward system. (15)

Adolescents are the most prolific consumers of internet technology, and their internet usage is largely dominated by the search for pornography. This proclivity for pornography correlates with compulsive internet usage. (16) The internet has rendered pornography almost ubiquitous, enabling accessibility at all times, affording anonymity, and at a minimal cost. Access to pornography, especially among adolescents, can potentially affect their social connections. (17) Pornography is broadly defined as images or videos created professionally or by consumers with the intent to arouse sexual desire. Traditional pornography relied on conventional media such as television, film, and magazines. In contrast, internet pornography involves online viewing or downloading of images and videos that explicitly depict genitalia or sexual acts, with the intent to stimulate the viewer sexually. (18)

Our research findings indicate that among 92 respondents, 44 of them have accessed pornography (47.8%). Nearly half of the respondents have encountered pornography, whether intentionally or unintentionally. (18) Internet pornography can be accessed from virtually anywhere with an internet connection, and it remains available around the clock. The internet enables the global dissemination of pornography through the triumvirate of accessibility, affordability, and anonymity (3A). Research conducted in the United States revealed that 42% of children aged 10 to 17 had viewed pornography online, with 27% characterizing this usage as deliberate. (18) Access to pornography can engender transformations in physical, socioemotional, and cognitive developmental facets. The underdeveloped brains of children and adolescents render them more susceptible to engaging in risky behaviors, which can subsequently influence the extent to which pornography is sought and acted upon. The immature brains of adolescents are particularly malleable. Exposure to pornography at a young age not only introduces children to sexual behavior but also reinforces it. Adolescents who experience traditional or cyberbullying are more likely to consume internet pornography. (13,18)

Our research results reveal that out of 92 respondents, 71 have not participated in cyberbullying (77.2%), while 21 have engaged in cyberbullying (22.8%). Cyberbullying encompasses diverse forms, and in this study, respondents engaged in cyberbullying primarily by disseminating hate speech on the internet.

The American Psychological Association defines bullying as a deliberate, repetitive aggressive behavior that is carried out intentionally and repeatedly, causing harm and discomfort to others. While the term "bullying" was initially coined in Western countries, particularly in Europe, it has evolved over time into a globally recognized concept. The World Health Organization (WHO) classifies bullying as a form of abuse, encompassing physical, psychological (emotional), sexual, neglect, and exploitation (of children). Such behaviors are repetitive, occurring at different times and posing risks to the victims. Bullies typically exhibit aggressive tendencies and are commonly plagued by severe familial issues, social maladjustment, poor academic performance, and are often victims of bullying themselves. (10,11)

Furthermore, bullying may also manifest through technology and the internet, often referred to as cyberbullying. Cyberbullying is more likely to occur among tech-savvy youth, characterized by a positive attitude and belief in the intensive use of the internet to expand their personal biography and address interpersonal issues. (11,12)

Recent reviews conducted within the limited timeframe between 2015 and 2020, focusing on adolescent populations, have revealed a wide variability in findings. The prevalence of cyberbullying perpetration ranged from 6.0% to 46.3%, while victimization rates spanned from 13.99% to 57.5%. (19)

Instances of bullying vary significantly across different countries, with 9-73% of students reporting having been victims of bullying. Bullying escalates in grades 11 and 12, encompassing forms of verbal abuse, disruption, physical intimidation, isolation, and ridicule of the victim's physical attributes. In secondary schools, bullying often includes physical violence, racial taunts, public humiliation, sexual harassment, teasing, coercion, and damage to property. (3)

Bullying behaviors are classified into two categories: direct bullying, which comprises verbal and physical actions, and indirect bullying, involving psychological or mental harm. A relatively new form of bullying, cyberbullying, has emerged, encompassing acts such as cyberstalking and online dating abuse. Verbal abuse is regarded as the most commonly reported form of cyberbullying behavior, both among perpetrators and victims, with a wide range of prevalence, varying from 5% to 18%. (13)

Cyberbullying has a detrimental impact on various aspects of young people's lives, leading to privacy violations and psychological disturbances. Physical and emotional consequences are widely observed among those affected by cyberbullying. The effects of cyberbullying may be more severe than those of traditional bullying due to the ability of perpetrators to act anonymously and connect with children and adolescents at any time. The adverse consequences arising from cyberbullying, including decreased security, lower educational achievement, poorer mental health, and heightened unhappiness, have led UNICEF to assert that "no child is truly safe in the digital world". (13,20)

Bivariate analysis using the chi-square statistical test yields a p-value of <0.05 , signifying a significant relationship between internet pornography and cyberbullying behavior among adolescents. Multiple logistic regression analysis produces an $\text{Exp}(B)$ of 4.170. This indicates that internet pornography access carries a risk four times greater of engaging in cyberbullying behavior among adolescents.

Our research reveals that nearly half of the respondents have accessed internet pornography (47.8%). This access might occur either intentionally or unintentionally during internet use. Additionally, 22.8% of respondents have engaged in cyberbullying behavior, with one form of cyberbullying in this study being the dissemination of hate speech.

Access to pornography can lead to transformations in physical, socioemotional, and cognitive development. The immature brains of children and adolescents make them more susceptible to engaging in risky behaviors, which can in turn influence the extent of pornography consumption and subsequent actions. The brains of children and adolescents are not yet fully developed. Exposure to pornography at a young age introduces children to sexual behavior and reinforces such behavior. Adolescents who experience traditional or cyberbullying are more likely to access internet pornography. (18)

Conclusion

The research results on the relationship between internet pornography and cyberbullying behavior among adolescents, involving 92 individuals, indicate that 47.8% of respondents have accessed internet pornography, and 22.8% of respondents have engaged in cyberbullying. From this study, it can be concluded that there is a

relationship between internet pornography and cyberbullying behavior among adolescents.

Further research into the demographics of individuals involved in internet pornography and cyberbullying is necessary to obtain a more diverse sample. Parents and guardians are encouraged to monitor adolescent internet access.

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