The Prevalence of Pornography Addiction, Self-Control, and Its Relationship with Dating Behaviour in Adolescents: A Cross-Sectional Study

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ARTICLE INFO
Article history:
Received 4th November 2023
Revised 28th November 2023
Accepted 8th December 2023
Available online
https://talenta.usu.ac.id/IJNS

E-ISSN: 2685-7162


ABSTRACT
The health of adolescents is intricately linked to their adaptation process during the period of growth and development. When adolescents lack sufficient coping skills or are bewildered by these changes, it can have detrimental effects on their health. One of the main issues impacting adolescent health is pornography and sexual activities, including kissing, masturbation, and sexual intercourse. The objective of this study is to describe pornography addiction, self-control, and their relationship with adolescent dating behaviour in the city of Manado, Indonesia. The research targets adolescents in the Manado region, based on inclusion criteria that include those aged 10-19 years who are unmarried, with a sample size of 230 respondents clustered by region. The method used in this research is a cross-sectional design, involving the direct distribution of questionnaires to prospective respondents. The questionnaires consist of the Pornography Addiction Screening Tool, Brief Self-control, and Dating Behaviour. Data were analyzed using univariate and bivariate analysis, using the chi-square test. The results of this study showed that the level of normal pornography addiction 96.5%, risk of addiction 2.6%, vulnerable to addiction 0.9%, and addiction 0%. Bivariate analysis demonstrated a significant relationship between pornography addiction, self-control, and dating behaviour with a p-value of <0.05. The contribution of the results of this research to the field of community health, can serve as foundational data to support ongoing health promotion efforts. This includes the development of technology, as well as the strengthening of policies and adolescent health programs in schools and community health centres.

Keywords: Adolescents, Dating behaviour, Indonesia, Pornography, Self-control

1. Introduction
The rapidly advancing technology of today has both positive and negative effects on adolescents. Technology is closely associated with gadgets and the internet, enabling access to everything at any time and place. Positive impacts on adolescents include enhancing the learning process in school, facilitating broader socialization, and increasing knowledge through extracurricular activities (Kotler & Brooks, 2023). However, when teenagers misuse technology, it can have negative consequences affecting their health and development. Examples include reduced physical activity, psychosocial problems, and easy access to various content, including pornography (Ozturk & Ayaz-Alkaya, 2021). Therefore, if technology is not well-managed by adolescents, it will significantly impact their health and the developmental process.

In the millennial era, the adolescent developmental process, when not carefully monitored, can impact adolescents' adaptability. Previous research explains that risky behaviours among adolescents today include engaging in risky sexual behaviour. Furthermore, it is noted that this occurs due to adolescents' uncontrolled media usage, often without clear parental guidance. Other studies offer a similar explanation, stating that with
the presence of the internet and various accessible sites, including pornography, adolescents can freely access explicit content. Continuous exposure to or viewing of pornographic scenes may challenge adolescents to try such activities in real life, such as engaging in sexual activities with their peers, whether male or female (Bleakley et al., 2017; Zohor Ali et al., 2021). Therefore, it can be concluded that the increasing advancement of technology contributes to issues related to adolescent health, especially concerning pornography addiction.

The prevalence of pornography addiction among adolescents continues to rise. Previous global studies have found that approximately 34% of the adolescent population between the ages of 10-17 show signs of pornography addiction (Horner, 2020). In this research, a study in the United States revealed that out of 1000 surveyed adolescents, 66% of boys and 39% of girls were addicted to pornography. Common forms of pornography exposure among teenagers, as found in previous research, include reading erotic stories, viewing explicit genital images, watching pornographic videos, participating in sexually explicit chat rooms, encountering pornography advertisements, and accessing pornographic websites (Ma & Shek, 2013). In Indonesia, a survey conducted in the DKI Jakarta and Banten regions showed that 3.7% of adolescents were addicted to pornography at level 2 (repeated access without significantly disrupting their activities), and 0.1% of the total sample were addicted at level 3 (increased access intensity that disrupts adolescent activities and causes withdrawal symptoms if access is denied) (Maisya & Masithoh, 2020). Therefore, if adolescents continue to be neglected in this condition, it will impact their behaviour within their social environment.

Pornography addiction has an impact on adolescent behaviour, especially in their relationships with others or dating behaviour. Previous research provides insights into the behaviour of adolescents aged 14-17 in five countries, including Bulgaria, Cyprus, England, Italy, Norway, and the Czech Republic, surveyed from 2002 to 2014. It was found that 17% of male and female adolescents engaged in sexual intercourse. In 2010, this percentage increased to 21% and significantly rose to 27% in 2014 (Pastor et al., 2017). Furthermore, the study's results elaborate that 28% of adolescents engage in sexual intercourse, with 35% of them doing so before the age of 16 (Belošević, 2023).

The Indonesian Demographic and Health Survey (SDKI) in 2017 found that risky behaviours among adolescents included activities such as holding hands (64% for females, 75% for males), hugging (17% for females, 33% for males), kissing on the lips (30% for females, 50% for males), touching or being touched (5% for females, 22% for males), and premarital sexual experiences (8% for males, 2% for females). In a survey conducted in North Sulawesi province, based on previous studies, it was found that 25.2% of adolescents had engaged in high-risk behaviours such as touching or being touched in sensitive areas (breasts or genitals), masturbation, or sexual intercourse (Simak et al., 2022).

Apart from dating behaviour, the effect of adolescents experiencing pornography addiction includes a decline in self-control. Adolescent self-control is closely associated with the central control system of the brain. Pornography can cause damage to five parts of the brain, particularly the Pre-Frontal Cortex (the area of the brain located right behind the forehead). Damage to this part of the brain can result in decreased academic performance, an inability to make plans, control impulses and emotions, make decisions, and perform various executive functions that regulate impulses (Kang et al., 2020).

Various benefits can be found when adolescents exercise good self-control. It allows them to interrupt tendencies towards undesirable behaviour and exercise restraint from acting impulsively. Previous research explains that good self-control tends to lead to improvement and positive outcomes (Kim et al., 2022; Tangney et al., 2004). Therefore, if adolescents continue to be exposed to pornography, it can lead to a continuous decline in brain function, potentially reaching a point of damage that significantly impacts self-control.

The various impacts of exposure to and addiction to pornography necessitate screening for pornography addiction and an understanding of the associated consequences. Currently, the Ministry of Health of Indonesia has health screening programs for students through student screening and health report books. However, these programs do not yet include screening for pornography addiction, resulting in a lack of data on the degree of pornography addiction among adolescents. Therefore, the importance of this research is to obtain up-to-date data and provide input for the development of policy programs at the district health office and health department levels related to adolescent health issues. The objective of this study is to describe and analyze the prevalence of pornography addiction and its relationship with dating behaviour and self-control in teenagers in the city of Manado: A cross-sectional study.

2. Methods
The research design used in this study is descriptive-analytic with a Cross-Sectional Study approach. The sample for this study consists of 230 respondents selected through simple random sampling, based on calculations using the G-Power application with an effect size of 0.5, power of 0.80, and a correlation
coefficient of 0.05. The sample was recruited based on inclusion criteria, which include being adolescents aged 13-19 years, unmarried, willing to participate as research respondents, and able to read and use a cell phone.

The research instrument used in this study consists of four parts of the questionnaire. Demographics (Part 1): This includes initial name, grade, age, gender, address, religion, and parents' occupations. Pornography addiction questionnaire (Part 2): This section uses the Pornography Addiction Screening Tool (PAST) questionnaire Indonesia version (Bulkeley, 2013). Part 3 of the questionnaire assesses self-control using the Brief Self-Control Scale Indonesia version (Tangney et al., 2004). Part 4 focuses on dating behaviour and is adapted from previous research (Nugroho, 2016).

The data collected from these questionnaire sections are analyzed using univariate and bivariate data analysis methods, including the Pearson Chi-Square Test and Fisher's Exact test. This analytical approach helps in examining and understanding the relationships between variables, such as the relationship between pornography addiction, self-control, and dating behaviour among the adolescent respondents. This research has undergone a review process by the Research and Community Service Institution of Sam Ratulangi University with reference number 854/UN12.13/LT/2023.

3. Results

Based on the information provided in Table 1, the characteristics of respondents, including age, gender, religion, parents' occupation, pornography addiction, self-control, and dating behaviour, are elucidated. In sequence, it was observed that adolescents were predominantly aged 14 years, accounting for 30.4%. The gender distribution revealed a higher representation of females, constituting 57.8%. The prevalent religion among adolescents was Protestant Christianity, encompassing 75.7%. A significant portion of parents were self-employed, comprising 29.1%.

Subsequently, the data on pornography addiction indicated a predominant normal presentation at 96.5%, with a 2.6% risk of addiction, 0.9% vulnerability to addiction, and 0% addiction reported. Data concerning adolescent self-control demonstrated a relatively balanced distribution, with 48.7% categorized as poor and 51.3% as good.

Furthermore, data pertaining to high-risk teenage dating behaviour, which includes activities such as touching or being touched in sensitive areas (breasts or genitals), masturbation, and sexual intercourse, accounted for 19.6%, while low-risk behaviours (holding hands, hugging, kissing on the lips with a boyfriend or the opposite sex) constituted 80.4%.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>13</td>
<td>28</td>
<td>12.2</td>
</tr>
<tr>
<td>14</td>
<td>70</td>
<td>30.4</td>
</tr>
<tr>
<td>15</td>
<td>69</td>
<td>30.0</td>
</tr>
<tr>
<td>16</td>
<td>40</td>
<td>17.4</td>
</tr>
<tr>
<td>17</td>
<td>21</td>
<td>9.10</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>97</td>
<td>42.2</td>
</tr>
<tr>
<td>Female</td>
<td>133</td>
<td>57.8</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Islam</td>
<td>47</td>
<td>20.4</td>
</tr>
<tr>
<td>Catholic</td>
<td>8</td>
<td>3.5</td>
</tr>
<tr>
<td>Christian Protestant</td>
<td>174</td>
<td>75.7</td>
</tr>
<tr>
<td>Budha</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Parent Employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>30</td>
<td>13.0</td>
</tr>
<tr>
<td>Labourer</td>
<td>40</td>
<td>17.4</td>
</tr>
<tr>
<td>Self-employed</td>
<td>67</td>
<td>29.1</td>
</tr>
<tr>
<td>Employee</td>
<td>61</td>
<td>26.5</td>
</tr>
<tr>
<td>Civil Servant/Military/Police</td>
<td>32</td>
<td>13.9</td>
</tr>
</tbody>
</table>

Table 1 Characteristics of respondents (n = 230)
Based on Table 2, it describes the bivariate analysis between pornography addiction and adolescent dating behaviour. The analysis results show that among adolescents with 'normal' levels of addiction, dating behaviour can still fall into both categories, with a high-risk category at 18.5% and a low-risk category at 81.5%. Meanwhile, the 'addiction risk' category shows a significant association with high-risk dating behaviour at 66.7% and low risk at 33.3%. The results of this research elucidate a significant relationship between pornography addiction and dating behaviour with a p-value of .010, which is less than .05.

Table 2 Bivariate Analysis of the Relationship Between Pornography Addiction and Adolescents Dating Behaviour (n = 230)

<table>
<thead>
<tr>
<th>Dating Behaviour</th>
<th>Vulnerable to Addiction</th>
<th>Risk of Addiction</th>
<th>Normal</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Risk</td>
<td>0 (0.0%)</td>
<td>4 (66.7%)</td>
<td>41 (18.5%)</td>
<td>.010*</td>
</tr>
<tr>
<td>Low Risk</td>
<td>2 (100.0%)</td>
<td>2 (33.3%)</td>
<td>181 (81.5%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45 (19.6%)</td>
<td>185 (80.4%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Pearson Chi-Square Test p-value < .05

Table 3 outlines the bivariate analysis of the relationship between self-control and adolescent dating behaviour. The analysis results reveal that even among adolescents with 'good' self-control, there is a possibility of their dating behaviour falling into both categories, with a high-risk category at 13.6% and a low-risk category at 86.4%. Conversely, adolescents with 'poor' self-control face a higher risk of high-risk dating behaviour at 25.9% and a lower risk at 74.1%. The results of this research elucidate a significant relationship between self-control and dating behaviour with a p-value of .020, which is less than .05.

Table 3 Bivariate Analysis of the Relationship Self Control and Adolescents Dating Behaviour (n = 230)

<table>
<thead>
<tr>
<th>Dating Behaviour</th>
<th>Poor</th>
<th>Good</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Risk</td>
<td>29 (25.9%)</td>
<td>16 (13.6%)</td>
<td>.020*</td>
</tr>
<tr>
<td>Low Risk</td>
<td>83 (74.1%)</td>
<td>102 (86.4%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45 (19.6%)</td>
<td>185 (80.4%)</td>
<td></td>
</tr>
</tbody>
</table>

*Fisher’s Exact Test p-value < .05

4. Discussion

The health issues that emerge in adolescents are highly complex and are closely tied to their development as they transition into adolescence. The community-as-partner theory has previously identified numerous health concerns in adolescents, such as smoking, alcohol consumption, sexual activity, and the use of illicit substances (Stanhope & Lancaster, 2019). Moreover, with technological advancements, one increasingly common issue among teenagers is risky sexual behaviour. This is corroborated by prior research examining
the influence of internet media on risky sexual behaviour. The findings of this research indicate that adolescents frequently access various websites, including pornography sites. Further analysis suggests that consistent exposure to such content may lead teenagers to imitate what they see, including engaging in sexual relationships with the opposite sex (Xiaoxi et al., 2021).

The research results offer insights into pornography addiction among adolescents, categorizing it into four levels: 'normal' (typical with curiosity), 'at-risk addiction' (infrequent pornography access without interference in daily activities), 'vulnerable to addiction' (emerging hypersexual behaviour, limited problem-solving skills, increased risk of emotional and social problems), and 'addicted' (high risk of emotional, social, and excessive anxiety problems, along with physical changes like constant fatigue). In terms of percentages, the distribution is as follows: normal 96.5%, at-risk addiction 2.6%, vulnerable to addiction 0.9%, and addicted 0%. Prior studies examining pornography addiction levels in Indonesian adolescents reveal degree 1 at 95.4% and degree 2 at 0.8% (Yunengsih & Setiawan, 2021). Neglecting or ignoring this issue can result in various significant consequences.

Neglecting the impact of pornography can have a more significant negative effect on the brain than drugs (Allen et al., 2017). Previous studies reveal information about the electroencephalogram (EEG) signals in adolescents with pornography addiction, indicating decreased learning ability, impaired decision-making, reduced memory capacity, and inadequate emotional control (Kang et al., 2020). Pornography can damage five parts of the brain, particularly the Pre-Frontal Cortex, leading to decreased academic performance, impaired planning abilities, reduced control over impulses and emotions, poor decision-making, and various executive functions of the brain. The brain responds by stimulating the production of dopamine and endorphins, chemicals that generate feelings of pleasure and well-being. While these substances are beneficial for maintaining good health and functioning in normal conditions, exposure to pornography can lead to hyperstimulation, causing the brain to function excessively and eventually shrink and deteriorate (Hossain et al., 2022; Hronis & Dixon, 2021).

The results of this research also explain the relationship between pornography addiction and adolescent dating behaviour. Table 2 shows that in the vulnerability to pornography addiction category, no respondents exhibited a high-risk dating behaviour. Additionally, in the at-risk addiction category, 66.7% showed high-risk dating behaviour, with a p-value of .010. Consistent with previous studies, this research underscores a significant link between exposure to pornography content and dating behaviour. It suggests that pornography can substantially provide sexual stimulation, especially in males, posing a challenge to engage in deviant sexual behaviour (Willoughby et al., 2021). Contributing factors may vary, but according to past research, indirect access to pornography by teenagers often begins with internet access at home, highlighting the primary influence of the lack of parental control over adolescents (Zohor Ali et al., 2021). Therefore, active parental monitoring of adolescents’ media usage can help prevent negative dating behaviour in adolescence.

Internal factors, such as self-control, also play a crucial role in influencing adolescent behaviour (Sangkaew et al., 2023). The results of this research explain the relationship between self-control and dating behaviour in adolescents. The statistical test results yield a p-value of .020, signifying a significant relationship. Further findings reveal that adolescents with low self-control exhibit high-risk dating behaviour at 25.9%, while those with high self-control demonstrate low risk dating behaviour at 74.1%. Analysis of the questionnaire used indicates that 63.47% of adolescents experience concentration problems, and 43.47% struggle to resist temptation, factors that can impact adolescent dating behaviour. Self-control encompasses the ability to resist impulses and delay personal gratification, involving cognitive processes that enable individuals to regulate their behaviour to achieve personal goals. Individuals with high levels of self-control typically experience emotional balance, better physical and mental health, and more positive interpersonal relationships (Parajuli et al., 2023). Conversely, low self-control is associated with poor mental health, substance abuse, criminal behaviour, conflictual interpersonal relationships, and subpar academic performance, including difficulties concentrating. These factors can also have negative implications for the emotional well-being and social relationships of adolescents (Lauharatanahirun et al., 2023).

5. Conclusion

Based on the results of this research, the researchers conclude that a significant relationship exists between pornography addiction, self-control, and dating behaviour. Specifically, it is noted that falling within the normal range of pornography addiction and having good self-control does not guarantee that adolescents will engage in healthy dating behaviour. Instead, it opens the possibility for them to engage in such behaviour, which is associated with risky sexual behaviour in adolescents. Understanding adolescent attitudes towards dating behaviour during adolescence is crucial in addressing this issue by promoting healthy dating and sexual behaviours. Furthermore, providing knowledge and preventing the early risks of sexual activity, including
delaying the age at which adolescents become involved in sexual activity or engage in unhealthy dating behaviour, is essential. This can be achieved by integrating sexual health education that emphasizes appropriate sexual values into elementary and middle school programs before adolescents become sexually active. Such a proactive approach can contribute to healthier relationships and behaviours among adolescents, ultimately promoting their overall well-being and reducing the negative consequences associated with risky sexual behaviour.

Acknowledgment

The researchers express their gratitude to all parties involved who have supported this research, including the Research and Community Service Institution of Sam Ratulangi University for funding this research based on contract letter number 244/UN12.13/LT/2023, as well as the research participants who actively participated in this study.

References


