

the Risks of Narkolema (Visual-Based Narcotic Effects) on Children

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Abstract

Narkolema (narcotics through visual exposure) refers to the exposure of children to visual content that is inappropriate for their developmental stage, such as violence, pornography, and excessive use of digital media. Children are in a highly plastic stage of brain development; therefore, visual stimuli received through the senses play a crucial role in shaping cognitive functions, emotional development, and behavior. Addictive and overstimulating visual exposure can affect attention systems, emotional regulation, and self-control in children. This study aims to examine the dangers of narkolema on child development from the perspectives of neuroscience and developmental psychology. The method employed was a literature review using a qualitative descriptive approach based on relevant scientific sources. The findings indicate that uncontrolled visual exposure can disrupt the balance between the limbic system and the prefrontal cortex, leading to increased impulsive behavior, difficulty concentrating, and emotional instability. Therefore, active involvement of parents and educators is essential through guidance and the strengthening of digital literacy to protect children from the negative impacts of narkolema.

Keywords: *Narcotics through visual exposure, Child, Digital Literacy*

1. Introduction

The world of information today is inseparable from technology. The widespread use of technology by society has driven rapid advancements, making technological systems increasingly sophisticated. Communication, which once required considerable time to deliver messages, has now become instant and seemingly without boundaries. Technological development in the current digital era continues to grow rapidly from day to day, month to month, and year to year. The presence of communication media and the accelerated development of information and communication technology have also facilitated the widespread dissemination of pornographic material.

A survey reports that there are approximately 72 million visitors to pornographic websites each year. Every second, around 28,000 internet users access pornographic content. Two-thirds of internet pornography consumers are male, while the remaining one-third are female. Adolescents aged 12–17 constitute the largest group of consumers of online pornography. *Narkolema* (narcotics through visual exposure) refers to pornographic content viewed by individuals that produces addictive effects and destructive impacts similar to those experienced by narcotics users. One of the major consequences of pornography addiction is damage to the frontal region of the brain, specifically the prefrontal cortex (PFC). The prefrontal cortex functions as the center for judgment, decision-making, and personality formation (Hardiningsih et al., 2021).

Based on these conditions, this study focuses on examining the dangers of *narkolema* in children, particularly in the context of the widespread use of gadgets without active parental control. In everyday social settings, it is common to observe parents readily giving gadgets to their children as a means of preventing disruption to their own activities. Among children and adolescents who are not developmentally ready, unrestricted gadget use has become normalized by parents. Consequently, it is not uncommon to find elementary school-aged children engaging in dating behaviors and adopting lifestyles resembling those of adults. This phenomenon is largely influenced by the content children consume through their gadgets. In fact, children today show less interest in television programs and are more attracted to gadgets, which allow for private viewing and unrestricted access to a wide range of content. Furthermore, the advancement of social media platforms facilitates online interaction among children, such as through WhatsApp, which enables the exchange of images and other media. Similarly, online games often feature characters wearing inappropriate clothing and storylines that are unsuitable for children's developmental stages.

2. Research Methodology

This study employed a qualitative descriptive design using a literature research approach to examine the phenomenon of *narkolema* (narcotics through visual exposure) and its potential impact on children's brain development. The population of this study consisted of scholarly publications discussing visual stimulation, digital media exposure, neurodevelopment, and child psychology. The sampling method used was purposive sampling, selecting sources that were relevant, peer-reviewed, and aligned with the focus of the study. The literature included journal articles, academic books, research reports, and authoritative policy documents published primarily within the last ten years, with earlier foundational studies included when necessary to support theoretical frameworks. The main instruments of this research were structured reading guidelines and literature review matrices used to record key concepts, research findings, and theoretical explanations related to visual exposure and brain development in children. Data collection procedures involved systematic searching of academic databases such as Google Scholar and reputable academic publishers using predefined keywords. The literature selection and analysis process was conducted over a three-month period.

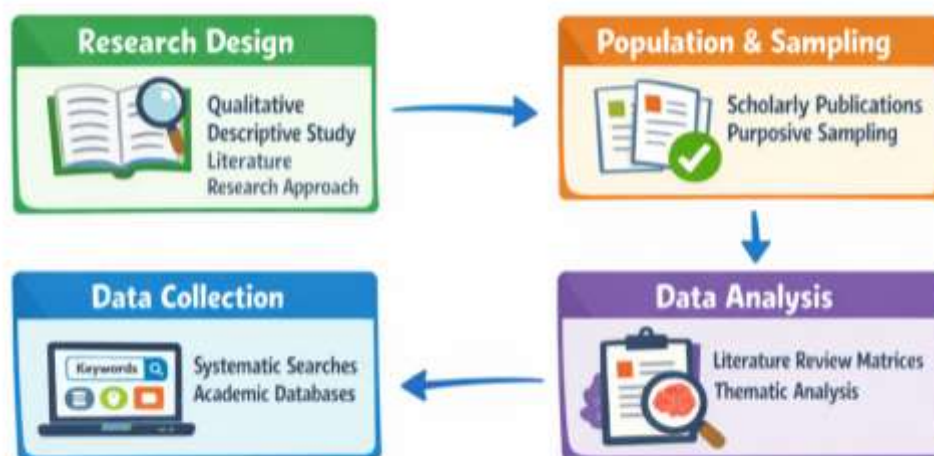


Figure 1. Flow diagram of research methods

Data analysis was carried out through content analysis, involving data reduction, categorization, and interpretation to identify recurring themes and patterns. Validity and reliability were ensured through source triangulation, careful selection of credible references, and consistency in analysis procedures. The study assumed that the reviewed literature accurately represented empirical and theoretical developments in the field. No statistical tests were applied, as the study did not involve numerical data analysis. The scope of this methodology was limited to secondary data, and findings were dependent on the availability and quality of existing literature.

3. Results and Discussion

Narkolema (narcotics through visual exposure), commonly referred to as pornography, is derived from two Greek words: *pornos*, meaning immorality or obscenity, and *graphia*, meaning writing, images, sculptures, or objects in general that contain or depict content offending moral decency for those who read or view it. The term pornography originates from the Greek word *pornographia*, which literally means writings or images about prostitutes (Soebagijo, 2008). According to the *Great Dictionary of the Indonesian Language (Kamus Besar Bahasa Indonesia)*, pornography is defined as (1) the depiction of erotic behavior through images or written texts intended to arouse sexual desire, and (2) reading materials deliberately and exclusively designed to stimulate sexual arousal (Subiakto, 2020).

According to Mark B. Kastleman, as cited in Subiakto (2020), pornography is a form of narcotics in the new millennium that has placed the world in the midst of a devastating crisis. In addition to disrupting individuals' lives, pornography can damage the brain, particularly the prefrontal cortex (PFC). The PFC is a cortical control area located in the frontal region of the brain that regulates cognitive and emotional functions. When the PFC is impaired, various symptoms may arise, including reduced concentration, difficulty distinguishing between right and wrong, diminished decision-making ability, and increased tendencies toward laziness.

Based on data from the National Center for Missing and Exploited Children (NCMEC), approximately 5.5 million children in Indonesia have become victims of pornography. This figure includes children at the elementary, junior high, and senior high school levels, as well as early childhood education (PAUD) students and

children with disabilities (Coordinating Minister for Political, Legal, and Security Affairs, Hadi Tjahjanto, April 20, 2024).

Various factors can contribute to an individual's vulnerability to *narkolema*, including low self-control among adolescents, individual attitudes, and insufficient parental supervision. Weak parental monitoring can accelerate and facilitate children's access to pornographic content. Many parents, both fathers and mothers, work outside the home, resulting in children being provided with smartphones and internet access without adequate parental control features. This condition is supported by a teacher's statement indicating that children are sometimes found bringing mobile phones to school despite explicit prohibitions by the school authorities (Munisa & Viridya Tasril, 2023).

According to a research team from the Directorate General of Health Services, peer group factors can also contribute to an individual's vulnerability to *narkolema*. Children are able to interact freely with one another online without adequate boundaries or supervision. This condition is consistent with the experiences of parents interviewed by the research team. One example involves the use of WhatsApp, where parents discovered private chat messages between their child and a same-age peer of the opposite sex containing expressions such as "darling," which are considered inappropriate for children at their developmental stage.

a. The Risks of Narkolema and Its Impact on Children

The initial process of brain damage in children caused by *NarkoLeMa* begins when a child is first exposed to pornographic content, whether intentionally or unintentionally. At the early stage, children typically experience feelings of disgust and discomfort. Pornographic images enter through the eyes and are then processed by emotional centers in the brain, which subsequently stimulate the production of dopamine. Dopamine is a neurotransmitter that increases focus, arousal, pleasure, and satisfaction, and it plays a key role in the development of addictive behaviors. As dopamine levels increase, children may develop a dependency and gradually lose sensitivity, leading to a need for increasingly explicit pornographic content. Eventually, children may become addicted to pornography and engage in *acting out*, imitating behaviors they have frequently observed (Wikipedia, 2023). *Narkolema* has numerous detrimental effects on both mental and physical health. Pornography addiction can interfere with adaptive functioning and damage both brain function and structure. The pattern of neurological damage closely resembles the physiological effects observed in individuals who consume alcohol or narcotic substances. Children affected by *narkolema* often experience difficulties in social adaptation, tend to withdraw, and show reduced interest in interacting with peers. They may appear different from other children of the same age in terms of physical movement or gross motor development. From a socio-emotional perspective, these children also exhibit noticeable differences compared to typically developing children, often displaying emotional instability and irritability due to impaired emotional regulation. Children exposed to *narkolema* are particularly vulnerable to damage in the prefrontal cortex (PFC). The PFC is a cortical control area located in the frontal region of the brain that regulates cognitive functions and emotional control. Damage to the PFC can result in symptoms such as reduced concentration, difficulty distinguishing between right and wrong, and diminished decision-making ability (Mark B. Kastleman, 2020).

b. Causal Factors

Various factors can contribute to a child's exposure to *Narkolema*. One of the primary factors is the lack of parental supervision or control. Parents who are heavily engaged in work or activities outside the home tend to allow children greater freedom to use gadgets independently, often without time limits. This situation provides children with opportunities to access content that is inappropriate for their developmental stage. In addition, limited parental knowledge and awareness regarding the appropriate age for introducing gadgets to children further exacerbates the problem. Many parents lack an understanding of the recommended minimum age and guidelines for children's gadget use, which increases the risk of excessive and uncontrolled exposure to digital media.

c. Preventive Efforts

There are several measures that can be taken to prevent children from being exposed to *Narkolema*, including the following:

1. **Implementing Rules from an Early Age.**

Every family has its own rules and forms of discipline for their children. However, these rules must be carefully considered so that children do not feel overly restricted. This also applies to regulations regarding exposure to content containing pornographic elements. Parents need to provide clear and detailed explanations about why such content is not appropriate for children. When rules are explained in a simple

and understandable manner, children are more likely to comprehend and comply with the regulations established by their parents.

2. Providing Early Sex Education.

Early sex education is essential for parents to provide to their children. This includes teaching children which parts of their bodies should not be touched by others, including parents, especially as the child grows older. Parents also need to educate children about which body parts should be covered and protected, as well as the importance of personal boundaries.

3. Limiting the Duration of Internet and Electronic Device Use.

Basically, the duration of gadget use for children should be adjusted according to their age group. However, in general, the recommended duration of gadget use for children is as follows:

- 1) Children under the age of 2 years are strongly discouraged from being given access to gadgets altogether. However, if gadget use is absolutely necessary, it is recommended that access be provided only after the child reaches the age of 1.5 years, with usage limited to no more than 1 hour per day and always under direct parental supervision.
- 2) For children aged 2–5 years, the recommended duration of gadget use is a maximum of 1 hour per day. During this time, parents are expected to carefully select high-quality, age-appropriate, and safe applications and programs suitable for young children.
- 3) For children over the age of 6 years, the recommended duration of gadget use should not exceed 2 hours per day (<https://www.siloamhospitals.com>). In addition, parents are encouraged to activate child or parental control modes on all electronic devices and websites commonly accessed by their children. This measure ensures that children are only exposed to content that is appropriate for their developmental stage and prevents access to harmful or unsuitable materials.

4. Create Shared Activities with Children

Parents need to provide positive and meaningful activities so that children do not develop an interest in viewing inappropriate content. Engaging in shared activities can also strengthen emotional bonds and foster a healthy relationship between parents and children. Through quality time and constructive interactions, children are more likely to feel supported, valued, and guided toward positive behaviors.

5. Provide Trust to Children

Children who are entering adolescence often experience diverse and fluctuating emotions. During this developmental stage, they begin searching for their identity and personal interests. Therefore, parents need to offer appropriate privacy and trust. Allowing children to explore, express themselves, and develop their hobbies can support healthy emotional growth and reduce the likelihood of seeking negative influences.

4. Conclusion

Narkolema (drugs through the eyes), more commonly known as pornography, is composed of two words: *pornos*, which means violating decency or obscenity, and *graphy*, which refers to writings, images, sculptures, or objects in general that contain or depict content that offends moral and ethical sensibilities of those who read or view them. Based on data from the National Center for Missing and Exploited Children (NCMEC), approximately 5.5 million children in Indonesia have become victims of pornography. This number includes children at the elementary, junior high, and senior high school levels, as well as early childhood education (PAUD) and children with disabilities. One of the factors that can cause children to experience Narkolema is the lack of parental supervision and control, as well as parents' limited knowledge regarding the dangers of pornography and the appropriate age limits for providing gadgets to children. The initial process of brain damage in children due to Narkolema occurs when a child is first exposed to pornographic content, whether intentionally or unintentionally. At first, the child may feel disgusted and uncomfortable. Pornographic images enter through the eyes and are immediately processed by emotional centers in the brain, which then stimulate the production of dopamine. Dopamine creates feelings of pleasure and stimulation, leading the child to develop addiction, reduced sensitivity, and an increasing need for higher levels of pornographic content. Eventually, the child may become addicted to pornography and engage in *acting out*, imitating behaviors frequently seen in such content. Preventive efforts can be carried out through parental control during children's gadget use, providing early sex education, creating shared activities between parents and children, and giving appropriate trust to children. Parents are expected to be wise and vigilant in supervising children's gadget use according to their developmental stages. Although the use of

gadgets cannot be completely avoided because children are born into the digital era, proper supervision and control can lead to positive outcomes for children's overall development.

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