



Negative Impact of the Excessive Use of Electronic Devices in Children and Youth: A Scientific Approach

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Article History	Abstract
Received: 06 June 2023 Revised: 05 Sept 2023 Accepted: 11 Sept 2023	<p>Aim: Electronic devices, such as television, are an integral part of the daily lives of children and adolescents. However, it is crucial to understand the possible long-term consequences that may arise due to their use. Material and method: Experts in the scientific field agree that these devices are not appropriate for very young children. Time spent watching television or playing computer games is considered wasted time that could have been spent on creative activities or social interactions. This problem has become a global concern. Worldwide, children and adolescents are allowed to use electronic devices daily, resulting in negative effects that affect their physical, emotional and behavioral health, such as vision problems, back pain and addiction. Statistics and Result: To prevent these consequences, it is advisable that parents become aware and take measures to avoid excessive use of electronic devices. It is important to educate children and adolescents about the risks associated with social networks, such as the presence of inappropriate content and the danger of sexual predators.</p>
CC License CC-BY-NC-SA 4.0	<p>Keywords: Electronic Devices, Television, Daily Life, Children</p>

1. Introduction

Nomophobia, one of the most common diseases associated with excessive use of electronic devices, is characterized by the irrational fear of not being constantly connected to the mobile phone. This condition has gained recognition in recent years due to the exponential growth of digital dependence in today's society. An important indicator to identify a person suffering from nomophobia is the experience of false vibrations, both when the electronic device is nearby and when it is without it. This illusory feeling triggers a compulsive response in the individual, leading him to check his mobile device repeatedly, exceeding on average 150 times per day.

The prevalence of nomophobia has raised concerns in the field of mental health, as it can have significant negative effects on the quality of life of those who suffer from it. Anxiety, stress, irritability and decreased ability to concentrate are some of the manifestations associated with this condition. In addition, nomophobia can negatively impact interpersonal relationships, academic and work performance, and sleep quality.

It is essential to address nomophobia from a comprehensive perspective that includes preventive measures and intervention strategies. Raising awareness about the risks associated with the excessive

use of electronic devices, promoting healthy habits of disconnection and encouraging alternative activities that stimulate social interaction and emotional well-being are key aspects in the prevention and treatment of this condition (Lozano, 2021; Medina et al., 2020; Palacios et al., 2020).

People between 6 and 12 years old are considered children and people between 13 and 18 years old are considered adolescents.

In recent years, there has been a significant increase in the excessive use of electronic devices, which has raised concerns about their harmful effects on children and adolescents. This trend has led to a decline in interest and participation in regular activities, both within and outside academia. As a consequence, difficulties have been identified that affect the family and academic functionality of these individuals.

The excessive use of electronic devices has generated a decrease in direct social interaction, limiting communication and empathy skills. Children and adolescents are immersed in a virtual world, moving away from physical activities, outdoor play and face-to-face contact with their peers. This lack of interest in usual activities is also reflected in the academic field, with a decrease in motivation and school performance.

In addition, prolonged use of electronic devices can have a negative impact on sleep quality, due to exposure to blue light emitted by screens, which affects the circadian rhythm and can result in sleep disorders. Likewise, an increase in attention and concentration problems has been observed, which affects academic performance and learning capacity.

Family functionality is also affected by excessive use of electronic devices. The lack of family interaction and communication is evidenced by the decrease in shared activities, the lack of meaningful conversations, and the difficulty in setting adequate limits on device use. This can lead to family tensions and conflicts, as well as a decrease in family cohesion.

To address this problem, it is necessary to promote greater awareness of the risks of excessive use of electronic devices, both in education and in the family. It is important to promote a healthy balance between the use of technology and other activities fundamental to the integral development of children and adolescents. This includes encouraging participation in physical, social and creative activities, as well as setting clear limits on device use and encouraging open communication and quality family time.

2. Materials And Methods

Search strategies

For the compilation of the relevant bibliographic documents, an exhaustive search was carried out in various documentary sources. The literature review was conducted in July 2022, covering the SCIELO, MEDLINE and PUBMED databases, recognized for their broad coverage in the field of health and medical sciences.

In the case of PUBMED, combinations of Mesh terms were used to refine the search and ensure the relevance of the results. Specifically, the terms "Social Networking" and "Child" were used to obtain information related to the consequences of excessive use of electronic devices in children and adolescents.

On the other hand, in the SCIELO database, the Health Sciences Descriptors were used to build an accurate search strategy. The terms "children" and "adolescents" were combined using the logical operator "AND" to obtain studies and research related to this specific population.

The objective of using these documentary sources and search strategies was to obtain a wide range of scientific articles and relevant studies that addressed the consequences of excessive use of electronic devices in children and adolescents. In this way, it was sought to obtain a complete and updated vision on this topic of interest and provide a solid basis for the elaboration of recommendations and conclusions based on scientific evidence.

Selection strategies

The selection of bibliographic articles was carried out in two stages under a joint review process by two reviewers. Both review authors performed a thorough analysis of the articles to ensure the quality and relevance of the information collected.

It is important to note that the authors of this bibliographic review are students of the Autonomous Regional University of the Andes, specifically of the Faculty of Medical Sciences, belonging to the career of Dentistry. The academic commitment and research training of the authors support the rigor and objectivity of this work.

The focus in the field of Dentistry allows to address the implications of the excessive use of electronic devices in oral health and its relationship with the quality of life of patients. The experience and knowledge acquired throughout the career of Dentistry provide a solid basis for the realization of this bibliographic review and allow to offer an informed and specialized perspective on the subject in question.

First stage

A descriptive study was conducted using a secondary data collection methodology. To this end, the abstracts of the articles obtained through the previously established search strategy were analyzed. The selection of articles was made considering four key variables: children, adolescents, electronic devices and associated physical and mental damage.

During the selection process, articles that did not meet the established inclusion criteria were excluded, that is, those that did not specifically address the relationship between children and adolescents, the use of electronic devices and the possible associated physical and mental harm. This exclusion was made with the aim of ensuring relevance and thematic coherence with the research objective (Santamaria et al., 2020; de et al., 2020; Velazco et al., 2020).

The use of secondary data allowed a comprehensive analysis of the existing scientific literature on the subject in question. By focusing on abstracts of articles, it was possible to obtain an overview of the relevant information and establish a solid basis for the development of this literature review.

Second stage

Once the relevant abstracts had been selected in the previous stage, complete information on the selected articles was obtained. This allowed the researchers to have a broader and more detailed view of the consequences that the excessive use of electronic devices can cause in children and adolescents.

The complete information of the articles was subjected to a process of classification and analysis according to their study design. Aspects such as the type of research (quantitative, qualitative, mixed), the sample used, the variables analyzed and the tools or methods used to collect the data were evaluated.

This study design analysis provided a more accurate understanding of the quality and validity of the selected articles. It also identified patterns, trends and key findings present in the peer-reviewed scientific literature.

The rigor in the classification and analysis of the selected articles guaranteed the reliability of the information obtained and allowed a more accurate interpretation of the results. In addition, this study methodology made it possible to identify possible gaps in existing research and guide future research in the field.

3. Results and Discussion

In the process of searching and selecting the articles for this literature review, a total of 6 articles were found that specifically addressed the issue of excessive use of electronic devices in children and adolescents. These articles were identified as relevant and appropriate for the analysis and obtaining relevant information in relation to the subject of study.

Likewise, 9 other articles that did not fit the focus and objectives of the research were discarded, thus ensuring the thematic coherence and quality of the selected studies. This rigorous selection process ensured that the articles included in this review were relevant and provided valuable information to understand the consequences of excessive use of electronic devices in children and adolescents.

The review of these 6 selected articles revealed a wide range of consequences associated with problematic consumption of social networks and excessive use of electronic devices in children and adolescents. These consequences can affect various aspects of young people's normal development, including their psychological well-being, academic performance, social interaction and physical health.

In order to provide a clearer and more accessible view of these consequences, a comparison table was developed. This table allowed to compile and summarize the information obtained from the selected articles, highlighting the main impacts of excessive use of electronic devices in children and adolescents. It aims to inform the community and raise awareness about the risks and implications of problematic use of electronic devices in this vulnerable population.

Consequence in children.	Consequence in adolescents.
According to (Diaz, 2007)	According to (Sandoval, 2020)
➤ Decreased attention span	➤ Loss of time to perform different activities.
➤ Social withdrawal	➤ Early sexual behavior
➤ Lack of recognition of limits and rules.	➤ Low self-esteem
➤ Poverty of language	➤ Lack of awareness to the real world
➤ Medical problems	➤ Violence
➤ Vulnerable to robbery or kidnapping	According to (Ruiz & Lopez, 2009)
➤ Sedentariness	➤ Prone to addiction
➤ Emotional changes such as nightmares, irritability	➤ Alterations in mood.
➤ Impair your problem-solving ability	➤ Changes in sleep rhythms.
➤ Lack of creativity.	➤ Isolation.
➤ Aggressive behavior	➤ Decline in academic performance.
	➤ Family conflicts.
	➤ Impoverishment of social relations.

The behavior of children and adolescents differs significantly in relation to the excessive use of electronic devices and the consequences that this can entail. In the case of children, it is common to observe that they withdraw from the people around them, which can have a negative impact on their physical and mental development.

A sedentary lifestyle is one of the most obvious consequences, since the time they spend in front of electronic devices limits their participation in physical and sports activities, which can lead to a lack of exercise and a deterioration in their general physical condition.

In addition, children tend to quickly lose focus on the activities they are developing due to the use of electronic devices. This is due to the highly stimulating and addictive nature of the devices, which easily capture their attention and distract them from other important tasks, such as school activities or social interactions (Parra et al., 2011; Ricardo et al., 2019).

This lack of focus can have negative repercussions on their academic performance and their ability to maintain healthy relationships with their peers and environment.

On the other hand, in the case of adolescents, excessive use of electronic devices can have an even more significant impact on their development. As teens seek to build their identity and explore new experiences, excessive time spent on electronic devices can limit their participation in social activities and the development of interpersonal communication skills. This can lead to social isolation, difficulty establishing meaningful relationships, and a decrease in their emotional well-being.

Teenagers, when using many electronic devices can have thoughts of suicide, so it is advisable not to restrict, but if regulating their use because of the new phenomenon called "sexteen", is a new fashion in adolescents that consists of sending photos and improper messages to adults, this new trend in some cases can be penalized (Jaimes, 2016).

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Electronic devices became an important part of everyday life, both in children and adolescents. A 4-year-old boy comes home from school and the first thing you do is watch television, a teenager is on the lookout sending messages on WhatsApp, this is how the exposure of electronic devices is more frequent.

The question that every parent asks, Is the use of electronic devices bad? The truth is that by itself it is not; It is the range of supervision that makes the difference between use and abuse (Perez, 2019).

Young people are the most exposed presenting themselves in situations of risk in producing addictions in the future, they have usually grown up in an environment where communication is absent, they have low self-esteem and many of them tend to flee their world and take refuge in electronic devices, feeling safe.

Children may suffer symptoms similar to teenagers, being exposed to drugs and alcohol.

According to the most recent data provided by the Proyecto Hombre Association in Spain, around 70% of children under 12 have an electronic device (cell phone, computer, tablet), a percentage that rises to more than 90% in children under 15 years of age (Perez, 2019).

As for the use of these devices, almost half of children use it in an excessive and uncontrolled way, with a significant increase in connection hours that directly affects school performance.

The language of children develops when they interact with the environment that surrounds him, while a child uses electronic devices excessively tends to have disorientation in his word, interacting with the external environment, one of the best ways for the child to obtain an enrichment in language is to interact with the child in different ways (Toriggia, 2020; Ricardo et al., 2020).

Electronic devices are very useful, but when used in excess it can have serious consequences in adolescents, such as destroying relationships with their partner, friends and family, reaching the case of bad behavior (Obregon, 2018).

Adolescents often exhibit altered behaviors that are at risk such as substance use or discovery of sexual activity at an early age. Sexting consists of sending nude or semi-nude images, as well as compromising messages, another of the most common risks is that sexual predators exist and they may be using alternatives to get explicit photos and disseminate them (Genzyme, 2022).

4. Conclusion

In conclusion, the use of electronic devices in some way is good and gives us help, but it also has a bad influence on society both as children and adolescents, which as a result of that can bring diseases, addictions, insomnia, hearing loss, visual fatigue, etc. In the comparative table the consequences presented by children and adolescents were observed, it can also affect a neglect to their studies. It would be very important to advise establishing schedules for the use of electronic devices in order to avoid excesses and thus achieve a better use of time. Designate responsibilities to children according to their age. Promote the practice of physical activities and thus create healthy habits, plan family activities to strengthen bonds.

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