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Risks of excessive screen use. Digital detox strategies

Riesgos del uso excesivo de pantallas. Estrategias de desintoxicación digital

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Abstract:

We often dedicate our routines to screen time, enjoying the benefits and entertainment that screen time provides. However, it is also necessary to consider the impact and consequences of excessive screen time. The objective of this research focuses on a) identifying the consequences of excessive screen time, such as increased obesity, sleep disorders, depression, anxiety, behavioral problems, and isolation; and b) providing digital detox options that are possible to carry out, setting limits on their use, which allows for more affectionate and warm relationships, in addition to taking advantage of time in physical activity-promoting activities that benefit personal well-being.

Keywords:

Excessive use of screens, risks, physical and mental health.

Resumen:

A menudo dedicamos nuestras rutinas al tiempo frente a la pantalla, disfrutamos de los beneficios y el entretenimiento que nos proporciona el tiempo frente a la pantalla, sin embargo, es necesario considerar de igual manera el impacto y consecuencias que tiene el uso excesivo de pantallas. El objetivo de esta investigación se centra en: a) identificar las consecuencias del exceso de tiempo frente a pantallas como el aumento de la obesidad, trastornos del sueño, depresión, ansiedad, problemas de conducta y aislamiento; y b) brindar opciones de desintoxicación digital que es posible llevar a cabo, estableciendo limites en su uso, lo que permite relaciones de mayor afecto y calidez además de aprovechar el tiempo en actividades que promuevan la actividad física que beneficien el bienestar personal.

Palabras Clave:

Uso excesivo de pantallas, riesgos, salud física y mental.

INTRODUCTION

Internet connection has become indispensable for work, education, social, and recreational life.

Digitalization has improved and streamlined processes in various fields, such as education, work, and healthcare. However, the prolonged use of digital devices has significantly increased screen exposure time, leading to consequences for public health.[1]

SCREEN USE AND OVERUSE

Over the past two decades, we have seen an increase in our reliance on screen time: television, tablets, smartphones, computers, and video game consoles, devices on which we spend most of our time. [1]

In 2022, Statista's research department estimated that 98.6 million people in Mexico had internet access, an increase of approximately 16 million compared to 2021. By 2026, around 118.2 million Mexicans will likely have internet access, with the majority browsing the web through smartphones.[2]

The World Health Organization (WHO) has established screen time guidelines: no screen exposure for children aged 0–2 years, one hour per day for children over six, and two hours per day for adolescents aged 12–18. The above gives us parameters for healthy screen time use while recognizing that abuse occurs when one steps outside these parameters. Similarly, the Spanish Pediatric Society recently recommended restricting screen use until age six and limiting it to one hour per day until age twelve.[3,4]

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RISKS OF SCREEN USE

The COVID-19 pandemic changed the way we interact in daily life. Lockdowns and the need for communication significantly increased the use of mobile devices and screen-based media, leading to greater dependence on these devices. This increase in screen exposure is linked to sleep problems, low self-esteem, childhood obesity, depression, and anxiety. Additionally, excessive screen time negatively affects neuroplasticity, normal development, body weight, and vision. Studies also show lower behavioral scores segmented by age.[5-8]

A study of Spanish children found that excessive screen use led to emotional reactions such as difficulty completing tasks, irritability, concentration problems, discouragement, and, to a lesser extent, sleep and behavioral issues.[9]

In Spain, lower participation in extracurricular activities correlated with increased screen time. Among children with low screen use, 61.9% engaged in sports, 15.7% in music, and 48.0% in language learning. In contrast, these percentages decreased to 49.1%, 8.1%, and 29.6% among children who use screens extensively. These differences are statistically significant.[10]

The results show that excessive screen use is linked to a negative impact on sleep duration and quality in preschool-aged children. Moreover, poorer sleep in childhood is associated with a higher likelihood of developing behavioral and cognitive problems.[11]

Excessive screen use is linked to poorer sleep duration and quality in preschool-aged children, increasing the likelihood of behavioral and cognitive issues. A statistically significant correlation was also found between expressive language delays and mobile device use among one-and-a-half-year-old children. Screen exposure reduces parent-child interactions and playtime, which are crucial activities for early language development and other developmental milestones.[12,13]

Infants and preschoolers highly exposed to media have elevated risk of adiposity, sleep problems, aggressive behavior, musculoskeletal pain, bullying, unhealthy eating habits, decreased executive functions, delayed motor development, reduced physical activity, sedentary behavior, and emotional and behavioral difficulties.[14]

Contextual elements such as co-viewing and topic appropriateness are key to determining how language development is affected. Additionally, excessive screen use has detrimental effects on social and emotional growth, including an increased likelihood of obesity, sleep disorders, and mental health problems such as depression and anxiety. It can obstruct the ability to interpret emotions, encourage aggressive behavior, and harm overall psychological health.[15]

In recent decades, technological development has led to a significant increase in using devices with screens, coinciding with a decrease in the time people spend in contact with natural environments. This combination, characterized by high screen time and limited exposure to green spaces, could negatively impact mental health and overall well-being. Most of the research analyzed was cross-sectional (62%), and generally found that greater screen use is associated with negative psychological effects; higher interaction with nature is linked to psychological benefits.[16]

Some of the conditions in minors associated with the excessive use of ICT (information and communication technologies) during confinement were anxiety, attention deficit, lack of impulse control, sleep disorders, eating disorders, self-esteem problems, and depression.[17,18]

Increased leisure time in adolescents is associated with less physical activity and more sleep problems, and higher screen addiction is inversely associated with eating habits, physical activity, and sleep-related variables.[19]

Excessive use of electronic screens can negatively impact various areas of child development, such as psychosocial, cognitive, learning, sleep, gross and fine motor skills, emotional, physical, language, and communication skills, as well as the ability to form mental images. These effects are generally due to reduced face-to-face interactions, less time spent in active play, sensory overstimulation caused by screens, prolonged exposure to blue light, and the constant consumption of pre-prepared visual and auditory stimuli.[20]

It is essential to highlight the role of parents in establishing clear messages about the use of screens by children and adolescents and in the adult individual's behavior concerning the same devices.[20]

Parental screen use, including family meals and in the bedroom, has been associated with increased screen time among adolescents and problematic use of social media, video games, and smartphones. Additionally, using devices as a behavioral control tool (e.g., as a reward or punishment) was linked to increased screen time and problematic video game use. In contrast, parental supervision and setting screen time limits has been associated with reduced screen use and less problematic engagement with social media and smartphones.[21,22]

These associations can be explained through Bandura's social learning theory, which states that individuals learn by observing and modeling the behavior of others. Children may imitate their parents' screen habits, meaning parents who frequently use digital media may impose fewer restrictions on their children.[23]

DIGITAL DETOX

Digital detox is “reducing or abstaining from the use of digital media, including social media.” Digital detox interventions significantly reduce depressive symptoms, suggesting that intentionally reducing or cessation of digital interaction may help alleviate contributing factors.[24]

Rather than promoting total abstinence, reducing social media and smartphone use is relevant, as reduction has shown more beneficial effects on well-being.[25]

It is essential to consider the consequences of excessive screen use, particularly the sedentary nature of digital leisure activities. Screens should not replace activities crucial for children's

development, such as reading, physical activity, or imaginative play.[26]

Raising awareness among the general population is necessary, as relying on digital devices for attention and engagement fosters emotional detachment, weakens interpersonal warmth, and negatively impacts health. In extreme cases, these effects may require intervention from mental health professionals.[27]

A two-week social media detox, limiting usage to 30 minutes daily, significantly improved smartphone and social media addiction, sleep quality, life satisfaction, stress levels, perceived well-being, and supportive relationships among young adults.[28]

In Cairo, they evaluated the impact of a digital detox program on electronic screen syndrome in high school students. The results showed a decrease in the proportion of students with high screen addiction, which went from 20.0% before the intervention to 14.3% after it. Similarly, cases of moderate addiction decreased significantly, falling from 65.7% to 43.8%. On the other hand, the percentage of students with low levels of addiction increased significantly, rising from 14.3% to 41.9% after implementing the program. [29]

Digital detox interventions significantly reduce depressive symptoms, suggesting that intentionally reducing or ceasing digital interaction may help alleviate contributing factors.[24]

A digital detox can significantly reduce symptoms of anxiety and depression in young adult demographics, underscoring its potential as a nonclinical mental health intervention. These findings support the inclusion of structured periods of digital disconnection in mental health management strategies in educational and occupational settings.[30]

During a digital detox intervention, participants found the experience manageable and even enjoyable. Researchers observed significant improvements in addiction and health-related outcomes, which persisted after the intervention ended. Furthermore, the review highlights the importance of tailoring detoxification approaches to each individual, as well as the need to implement strategies that help combat boredom and replace screen time with other activities.[31]

Regulating screen time is crucial to avoiding the health risks associated with prolonged screen exposure. It involves having adequate knowledge, a positive attitude, and proper practice of time regulation.[1]

Setting limits, using parental controls, and modeling good screen behavior are techniques parents can use to manage their children's screen use. We can reduce the potential adverse effects of excessive screen time and promote children's healthy development and well-being by increasing awareness and encouraging alternative activities that stimulate growth.[15]

As for children's interaction with media, methods that involve limiting use, using it in moderation, and encouraging healthy habits have been shown to be more effective.[32]

CONCLUSIONS

Finally, we conclude that screen use has unquestionable attractive benefits. It is relevant to consider the risks of excessive use at any age and take steps to maintain balanced digital habits in our lives. We should enjoy screen time and spend it in healthy activities that impact our physical and mental health.

As a priority, the analysis is founded on the risks that screen time poses to children. I It is also essential for adults to take steps to model responsible screen use for children and use the digital detox strategies that best fit our daily activities.

It's relevant to consider the immediate effects of a digital detox, such as returning to more screen time and facing moments of boredom.

There's certainly no one-size-fits-all strategy. However, it's important to remember that adults are responsible for the protection and safety of minors in any context, including the digital one.

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