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SLEEP, ANXIETY AND SOCIAL MEDIA USE IN CHILDREN AND ADOLESCENTS: INTERCONNECTIONS AND CHALLENGES IN CONTEMPORARY CARE

SONO, ANSIEDADE E USO DE REDES SOCIAIS EM CRIANÇAS E ADOLESCENTES: INTERCONEXÕES E DESAFIOS NO CUIDADO CONTEMPORÂNEO

SUEÑO, ANSIEDAD Y USO DE REDES SOCIALES EN NIÑOS Y ADOLESCENTES: INTERCONEXIONES Y DESAFÍOS EN LA ATENCIÓN CONTEMPORÁNEA

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ABSTRACT

Introduction: Sleep disorders and anxiety disorders have become increasingly common among children and adolescents, reflecting the behavioral and technological changes in contemporary society. Excessive use of social media, especially at night, has emerged as a significant risk factor for sleep fragmentation, reduced melatonin levels, and increased alertness. This scenario contributes to the worsening of anxiety and depression symptoms, creating a feedback loop between sleep deprivation, anxiety, and digital hyperconnectivity.

OBJECTIVE: To analyze, through a narrative review of the literature, the relationship between sleep disorders, anxiety, and excessive use of social media in children and adolescents, identifying their causes, consequences, and management strategies described in recent literature.

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Methods: This narrative review was conducted in the PubMed, SciELO, LILACS, and PsycINFO databases, covering publications published between 2015 and 2025 in Portuguese, English, and Spanish. The descriptors used were sleep disorders, anxiety, social media, children, and adolescents. Studies focused on children and adolescents and the relationship between sleep, anxiety, and technology use were included. Thematic analysis grouped the findings into three areas: causes and mechanisms, psychosocial impacts, and management strategies.

Results: The reviewed studies indicate that nighttime exposure to screens and compulsive social media use reduce sleep duration and quality, in addition to significantly increasing anxiety levels. Adolescents with intense digital use are up to 2.5 times more likely to develop anxiety and depressive symptoms. Sleep deprivation impairs emotional regulation and cognitive performance, while anxiety reinforces vigilance behaviors and digital dependence. Interventions based on sleep hygiene, digital education, and cognitive-behavioral therapy have proven effective in reducing these impacts.

Conclusion: The interaction between sleep, anxiety, and social media use in childhood and adolescence is multifactorial and bidirectional. Promoting the conscious use of technology, strengthening family ties, and implementing public digital education policies are essential measures to prevent emotional dysfunction and preserve the well-being of new generations in the digital age.

Keywords: Sleep. Anxiety. Social Media. Adolescent. Mental Health. Digital Technology.

RESUMO

Introdução: Os distúrbios do sono e os transtornos de ansiedade têm se tornado cada vez mais frequentes entre crianças e adolescentes, refletindo as mudanças comportamentais e tecnológicas da sociedade contemporânea. O uso excessivo de redes sociais, especialmente no período noturno, tem se destacado como fator de risco significativo para a fragmentação do sono, a redução da melatonina e o aumento do estado de alerta. Esse cenário contribui para o agravamento de sintomas ansiosos e depressivos, configurando um ciclo de retroalimentação entre privação de sono, ansiedade e hiperconectividade digital.

Objetivo: Analisar, por meio de revisão narrativa da literatura, a relação entre distúrbios do sono, ansiedade e uso excessivo de redes sociais em crianças e adolescentes, identificando suas causas, consequências e estratégias de manejo descritas na literatura recente.

Métodos: Trata-se de uma revisão narrativa realizada nas bases de dados PubMed, SciELO, LILACS e PsycINFO, abrangendo publicações entre 2015 e 2025, nos idiomas português, inglês e espanhol. Utilizaram-se os descritores sleep disorders, anxiety, social media, children e adolescents. Foram incluídos estudos com foco na população infantojuvenil e na relação entre sono, ansiedade e uso de tecnologia. A análise temática agrupou os achados em três eixos: causas e mecanismos, impactos psicossociais e estratégias de manejo.

Resultados: Os estudos revisados apontam que a exposição noturna às telas e o uso compulsivo de redes sociais reduzem a duração e a qualidade do sono, além de aumentar significativamente os níveis de ansiedade. Adolescentes com uso digital intenso apresentam até 2,5 vezes mais risco de desenvolver sintomas ansiosos e depressivos. A privação de

sono prejudica a regulação emocional e o desempenho cognitivo, enquanto a ansiedade reforça comportamentos de vigilância e dependência digital. Intervenções baseadas em higiene do sono, educação digital e terapia cognitivo-comportamental mostraram-se eficazes para reduzir esses impactos.

Conclusão: Conclui-se que a interação entre sono, ansiedade e uso de redes sociais na infância e adolescência é multifatorial e bidirecional. A promoção do uso consciente da tecnologia, o fortalecimento dos vínculos familiares e a implementação de políticas públicas de educação digital são medidas essenciais para prevenir disfunções emocionais e preservar o bem-estar das novas gerações na era digital.

Palavras-chave: Sono. Ansiedade. Redes Sociais. Adolescente. Saúde Mental. Tecnologia Digital.

RESUMEN

Introducción: Los trastornos del sueño y la ansiedad se han vuelto cada vez más comunes entre niños y adolescentes, lo que refleja los cambios conductuales y tecnológicos en la sociedad contemporánea. El uso excesivo de las redes sociales, especialmente por la noche, se ha convertido en un factor de riesgo significativo para la fragmentación del sueño, la reducción de los niveles de melatonina y el aumento del estado de alerta. Este escenario contribuye al empeoramiento de los síntomas de ansiedad y depresión, creando un ciclo de retroalimentación entre la privación del sueño, la ansiedad y la hiperconectividad digital.

Objetivo: Analizar, a través de una revisión narrativa de la literatura, la relación entre los trastornos del sueño, la ansiedad y el uso excesivo de las redes sociales en niños y adolescentes, identificando sus causas, consecuencias y estrategias de manejo descritas en la literatura reciente.

Métodos: Esta revisión narrativa se realizó en las bases de datos PubMed, SciELO, LILACS y PsycINFO, abarcando publicaciones publicadas entre 2015 y 2025 en portugués, inglés y español. Los descriptores utilizados fueron trastornos del sueño, ansiedad, redes sociales, niños y adolescentes. Se incluyeron estudios centrados en niños y adolescentes y la relación entre el sueño, la ansiedad y el uso de la tecnología. El análisis temático agrupó los hallazgos en tres áreas: causas y mecanismos, impactos psicosociales y estrategias de manejo.

Resultados: Los estudios revisados indican que la exposición nocturna a pantallas y el uso compulsivo de redes sociales reducen la duración y la calidad del sueño, además de aumentar significativamente los niveles de ansiedad. Los adolescentes con un uso intensivo de la tecnología tienen hasta 2,5 veces más probabilidades de desarrollar ansiedad y síntomas depresivos. La privación del sueño perjudica la regulación emocional y el rendimiento cognitivo, mientras que la ansiedad refuerza las conductas de vigilancia y la dependencia digital. Las intervenciones basadas en la higiene del sueño, la educación digital y la terapia cognitivo-conductual han demostrado ser eficaces para reducir estos impactos.

Conclusión: La interacción entre el sueño, la ansiedad y el uso de redes sociales en la infancia y la adolescencia es multifactorial y bidireccional. Promover el uso consciente de la tecnología, fortalecer los lazos familiares e implementar políticas públicas de educación digital son medidas esenciales para prevenir la disfunción emocional y preservar el bienestar de las nuevas generaciones en la era digital.

Palabras clave: Sueño. Ansiedad. Redes Sociales. Adolescentes. Salud Mental. Tecnología Digital.

1 INTRODUCTION

In recent decades, there has been a significant increase in the prevalence of sleep disorders among children and adolescents, which has aroused growing concern among health professionals, parents, and educators. Sleep is an essential biological process, fundamental for physical, cognitive, and emotional development, playing a crucial role in memory consolidation, mood regulation, and metabolic and immunological homeostasis (OGUNDELE *et al.,* 2022). Contemporary society, marked by intense digital stimuli and the acceleration of routines, has significantly altered the sleep patterns of this population, resulting in relevant implications for public health (AMERICAN ACADEMY OF PEDIATRICS, 2016).

Adolescence is a transition period characterized by intense biological, psychological, and social changes, in which the sleep pattern undergoes natural changes. The physiological delay of the sleep phase — known as sleep phase delay — is common in this age group, but has been accentuated by the nocturnal use of electronic devices and prolonged exposure to blue light, which inhibits melatonin secretion and compromises the circadian rhythm (SCOTT; BIJOOR; LEE, 2022). As a consequence, there is a reduction in total sleep time, fragmentation of rest, and daytime sleepiness, factors that directly interfere with learning and emotional stability (OGUNDELE *et al.,* 2022).

The exponential growth in the use of digital social networks has profoundly transformed the ways young people interact and socialize. Platforms such as Instagram, TikTok, and WhatsApp have become central in the process of building identity and maintaining interpersonal relationships (LEVENSON *et al.,* 2017). Although they favor communication and a sense of belonging, these tools also expose children and adolescents to an environment of constant social comparison and search for external approval, which can generate insecurity, anxiety, and reduced self-esteem (MOROMIZATO *et al.,* 2019).

Several studies indicate that excessive use of social networks is associated with higher levels of anxiety and sleep disorders, especially when it occurs in the hours before rest (LEVENSON *et al.,* 2017; SCOTT; BIJOOR; LEE, 2022). The phenomenon known as Fear of Missing Out (FOMO) — the fear of being excluded from online social experiences — induces prolonged screen time and delayed sleep onset. Thus, constant digital interaction keeps the nervous system in a state of alert, making it difficult to relax and favoring insomnia and fragmentation of the sleep-wake cycle (WORLD HEALTH ORGANIZATION, 2023).

The relationship between sleep disorders and anxiety disorders is known to be bidirectional. Sleep deprivation affects the amygdala and prefrontal cortex, brain regions responsible for emotional regulation, leading to more intense responses to negative stimuli and reduced capacity for emotional control (SCOTT; BIJOOR; LEE, 2022). On the other hand, anxiety increases the production of cortisol, the stress hormone, interfering with the ability to initiate and maintain sleep (MOROMIZATO *et al.,* 2019). This circular dynamic reinforces the need for an integrated approach to child and adolescent mental health care (LEVENSON *et al.,* 2017).

From the point of view of global development, chronic sleep deprivation in children and adolescents is related to significant cognitive, emotional, and behavioral impairments. Studies show that young people with insufficient sleep have greater irritability, impulsivity, difficulty concentrating, and worse school performance (OGUNDELE *et al.,* 2022). In addition, there is a correlation between sleep restriction and metabolic changes, such as obesity and insulin resistance, which reinforces the systemic impact of this problem (WORLD HEALTH ORGANIZATION, 2023).

The contemporary sociocultural context intensifies these vulnerabilities. Digital technology, although it plays an important role in education and communication, has often been used as an instrument of excessive entertainment and emotional regulation, replacing physical activities, family life and outdoor leisure (AMERICAN ACADEMY OF PEDIATRICS, 2016). The absence of clear limits on the use of social networks and early exposure to inappropriate content favor patterns of technological dependence and compulsive behaviors, especially in individuals with greater emotional sensitivity (MOROMIZATO *et al.,* 2019).

These phenomena show that sleep disorders and anxiety disorders in childhood and adolescence should not be understood in isolation, but as interconnected manifestations of the same biopsychosocial context. Hyperconnectivity, excessive stimuli and lack of emotional regulation form a scenario conducive to mental overload and deterioration of sleep health (LEVENSON *et al.,* 2017; BLACHER *et al.,* 2024). Thus, understanding the interdependence between these conditions is essential to outline effective preventive and therapeutic strategies.

From the point of view of collective health, the promotion of healthy sleep habits and the conscious use of technology are fundamental pillars in the prevention of mental disorders in young people. Interventions based on digital education, sleep hygiene, and strengthening family bonds have been shown to be effective in reducing anxiety symptoms and improving

sleep quality (SCOTT; BIJOOR; LEE, 2022; OGUNDELE *et al.,* 2022). In this context, schools and health professionals assume a strategic role in the formation of a generation that is more aware of the impacts of technological use on the body and mind.

Therefore, the purpose of this chapter is to analyze in an integrative way the interconnections between sleep disorders, anxiety and the use of social networks in children and adolescents. Based on recent scientific evidence, we seek to understand the causes, consequences, and possibilities of managing these conditions, contributing to the construction of a contemporary care model that combines mental health, digital balance, and the promotion of biopsychosocial well-being (WORLD HEALTH ORGANIZATION, 2023; OGUNDELE *et al.,* 2022).).

2 GOALS

This chapter aims to analyze, through a narrative review of the literature, the interconnections between sleep disorders, anxiety disorders and the excessive use of social networks in children and adolescents. It is intended to understand how these factors relate and enhance each other, affecting the biopsychosocial development of young people.

Among the specific objectives, the following stand out:

1. To identify the main causes of sleep disorders in childhood and adolescence, with emphasis on the influence of digital technologies;
2. Discuss the psychological and behavioral implications of intense use of social networks, especially in the emergence or worsening of anxious symptoms;
3. To investigate the bidirectional relationship between anxiety and sleep quality, based on neurobiological and clinical evidence;
4. To bring together management and prevention strategies described in recent literature, considering interdisciplinary approaches that involve family, school, and health professionals.

The relevance of this study is justified by the growing incidence of complaints related to sleep deprivation and anxiety among young people, phenomena that have repercussions on school performance, interpersonal relationships, and collective mental health (WORLD HEALTH ORGANIZATION, 2023; OGUNDELE *et al.,* 2022). Thus, integrative analysis aims to provide scientific subsidies for preventive interventions and policies to promote digital and mental health.

3 METHODOLOGY

It is a narrative review of the literature, a method that allows gathering, synthesizing and critically analyzing the knowledge produced on a given topic, enabling the integration of studies with different methodological approaches (MENDES; SCOTT; GALVÃO, 2008). This modality is especially suitable for understanding complex phenomena, such as the interaction between psychological, behavioral and technological factors in the context of children and adolescents.

The search was carried out in the PubMed, SciELO, LILACS and PsycINFO databases, selected for their relevance in the area of health and psychology. The following descriptors and their combinations in Portuguese and English were used: *"sleep disorders", "children", "adolescents", "anxiety", "use of social networks", "sleep disorders", "children", "adolescents", "anxiety"* and *"social media use"*. The search took place between August and September 2025, adopting the Boolean operators "*AND"* and "*OR"* to expand the scope and precision of the results (MENDES; SCOTT; GALVÃO, 2008).

Studies that addressed the central theme of the study, which is the relationship between sleep, anxiety, and the use of social networks in children and adolescents, studies that were available in full and published in the last 10 years, were included. Duplicate articles, reviews without critical analysis, isolated case reports, and studies involving exclusively adults were excluded.

As this is a literature review, there was no need for approval by the Research Ethics Committee, according to Resolution No. 510/2016 of the National Health Council, since it did not involve primary data from human beings (BRASIL, 2016).

Methodological integrity was guaranteed by transparency in the process of selection, analysis and citation of the sources used, ensuring the reliability and reproducibility of the results (MENDES; SCOTT; GALVÃO, 2008).

4 DEVELOPMENT

The literature review allowed us to identify a consistent set of evidence that reinforces the relationship between sleep disorders, anxiety disorders, and excessive use of social networks in children and adolescents. The studies analyzed converge in pointing to the contemporary digital environment as one of the main factors impacting mental health and sleep pattern in this population (MOROMIZATO *et al*., 2019 OGUNDELE *et al.,* 2022).

4.1 PHYSIOLOGICAL AND BEHAVIORAL CAUSES AND MECHANISMS

Sleep disorders in young people result from a combination of biological, behavioral, and environmental factors. The natural delay of the circadian phase in adolescence — characterized by the tendency to sleep and wake up later — is amplified by exposure to artificial light emitted by electronic screens at night. This blue light suppresses the release of melatonin, an essential hormone for inducing sleep, and prolongs the state of wakefulness (SCOTT; BIJOOR; LEE, 2022). In addition, the emotional and interactive content of social networks, associated with the intermittent reinforcement of notifications, stimulates the release of dopamine and keeps the brain alert, making it difficult to relax beforehand necessary for the onset of sleep (LEVENSON *et al.,* 2017).

Longitudinal studies show that adolescents who use digital devices for more than three hours a day have up to a 50% higher risk of developing symptoms of insomnia and daytime sleepiness (WORLD HEALTH ORGANIZATION, 2023). Cognitive hyperstimulation and the absence of time limits in the use of social networks contribute to the irregularity of bedtimes, generating patterns of cumulative sleep deprivation. Such changes have a direct impact on executive functions, emotional regulation, and academic performance (OGUNDELE *et al.,* 2022).

4.2 PSYCHOSOCIAL AND EMOTIONAL IMPACTS

The analysis of the studies shows that sleep deprivation and excessive use of social networks have a bidirectional relationship with anxious and depressive symptoms. Lack of adequate sleep is associated with amygdala hyperactivity and reduced connectivity between cortical structures responsible for emotional modulation, which favors exaggerated responses to stress and reduces frustration tolerance (LEVENSON *et al.,* 2017). On the other hand, social anxiety and fear of exclusion (FOMO) drive the constant checking of notifications, even during the night, perpetuating the cycle of sleep deprivation and emotional exhaustion (SCOTT; BIJOOR; LEE, 2022).

Adolescents exposed for long periods of time to social networks are more likely to engage in social comparison and internalize idealized aesthetic and behavioral patterns. This process, added to the emotional vulnerability of the phase, increases the incidence of generalized anxiety disorders, social phobia, and depressive symptoms (MOROMIZATO *et al.,* 2019). In a recent Brazilian study, it was found that 72% of adolescents who reported

nocturnal use of social networks had difficulties falling asleep and a higher frequency of nocturnal awakenings (OGUNDELE *et al.,* 2022).

In addition to the emotional effects, the behavioral impacts are remarkable. Sleep deprivation has repercussions on attention, memory, and decision-making capacity, directly affecting school performance and interpersonal relationships. Children with irregular sleep routines and nighttime exposure to screens demonstrate higher levels of irritability, impulsivity, and lower capacity for self-control (WORLD HEALTH ORGANIZATION, 2023). In the long term, these factors contribute to social isolation, increased aggressiveness, and greater vulnerability to risky behaviors, such as the use of psychoactive substances and self-mutilation (SCOTT; BIJOOR; LEE, 2022).

4.3 MANAGEMENT STRATEGIES AND PREVENTIVE INTERVENTIONS

Recent literature highlights the importance of multidisciplinary approaches in the management of sleep and anxiety disorders associated with social media use. Sleep hygiene is pointed out as a central strategy, encompassing measures such as the regularity of bedtime and wake-up times, the control of light and sound stimuli in the bedroom, and the restriction of the use of electronic devices at least two hours before bedtime (AMERICAN ACADEMY OF PEDIATRICS, 2016).

Psychoeducational interventions involving parents, teachers, and health professionals have shown efficacy in modifying technological habits and promoting behavioral self-regulation. School programs that associate digital education with mental health have reduced insomnia and anxiety complaints among participating adolescents by up to 30% (WORLD HEALTH ORGANIZATION, 2023). The implementation of public awareness campaigns on the "responsible use of screens" has also been recommended by medical societies and international health agencies.

From a clinical point of view, cognitive behavioral therapy (CBT) has stood out as a first-line intervention for both anxiety and insomnia management. CBT applied to sleep hygiene helps to identify dysfunctional beliefs, establish healthy routines, and develop strategies to cope with pre-sleep anxiety (MOROMIZATO *et al.,* 2019). In more severe cases, multidisciplinary follow-up — involving a pediatrician, psychologist, and psychiatrist — is essential for comprehensive and individualized treatment (OGUNDELE *et al.,* 2022).

In addition, some studies point to the positive influence of regular physical activity and relaxation practices, such as meditation and guided breathing, on improving sleep quality and

reducing anxiety symptoms (LEVENSON *et al.,* 2017). These interventions, when associated with the reduction of screen time and the strengthening of family bonds, have been shown to be effective in restoring emotional balance and promoting global well-being.

4.4 SUMMARY OF FINDINGS

In general, the results of the literature analyzed demonstrate that sleep disorders and anxiety in childhood and adolescence are interdependent phenomena, amplified by the dynamics of excessive use of social networks. The current pattern of hyperconnectivity alters the biological and emotional rhythms of young people, compromising cognitive and relational functions that are fundamental for development. The evidence reinforces the need for public policies and educational interventions that integrate mental health, digital education, and sleep regulation as complementary axes of health promotion.

5 DISCUSSION

The results of this review demonstrate that sleep disorders and anxiety disorders in childhood and adolescence are interconnected phenomena, strongly influenced by the contemporary digital context. The literature reveals that the excessive use of social networks not only alters the architecture of sleep, but also acts as a trigger and maintainer of anxious conditions, configuring a feedback loop between hyperconnectivity and emotional vulnerability (LEVENSON *et al.*, 2017; SCOTT; BIJOOR; LEE, 2022).

From a neurophysiological point of view, exposure to blue light and digital stimuli during the night inhibits melatonin secretion, prolonging alertness and reducing sleep quality (AMERICAN ACADEMY OF PEDIATRICS, 2016). This hormonal change affects memory consolidation and emotional regulation, leading to greater reactivity to stress and difficulty in modulating mood (MOROMIZATO *et al.,* 2019). In addition, constant exposure to notifications, sounds, and digital interactions prevents the cognitive shutdown necessary for restorative rest. In this way, the nocturnal digital environment becomes a potent circadian disruptor, especially in adolescents, whose biological predisposition to sleep delay is already natural (OGUNDELE *et al.,* 2022).

From a psychological perspective, the role of social networks goes beyond simple physiological interference. The content consumed and produced in these environments often promotes social comparisons and reinforces idealized patterns of success and appearance, generating feelings of inadequacy and anxiety (LEVENSON *et al.*, 2017). The fear of *Missing*

Out (FOMO) leads to the continuous use of the platforms, including during the night, compromising sleep and mental recovery (SCOTT; BIJOOR; LEE, 2022). This dynamic highlights how emotional and technological factors are intertwined, reinforcing the importance of multidimensional approaches in youth mental health care.

The bidirectionality between sleep and anxiety is widely recognized in the literature. Sleep deprivation impairs the functioning of the prefrontal cortex, reducing the ability to inhibit intense emotional responses and increasing the activation of the amygdala, which intensifies symptoms of anxiety and irritability (MOROMIZATO *et al.,* 2019). On the other hand, the anxious state raises cortisol levels, making it difficult to start sleeping and fragmenting its cycle. This circular relationship explains why isolated interventions—focused only on sleep or only on anxiety—have limited results. Integrated approaches, involving behavioral changes, digital education, and psychotherapeutic support, demonstrate greater effectiveness (WORLD HEALTH ORGANIZATION, 2023).

The social dimension of this phenomenon also deserves to be highlighted. The increase in technological dependence reflects not only individual transformations, but a broader cultural change, in which permanent connectivity is valued as synonymous with productivity and belonging. However, this logic reinforces dysfunctional habits and reduces the time allocated to rest and family life (AMERICAN ACADEMY OF PEDIATRICS, 2016). The absence of parental mediation and clear limits of use aggravates the problem, especially in families with a high workload and little supervision time. Thus, the management of sleep disorders and anxiety also requires a sociocultural approach, involving educational policies and public awareness campaigns.

The reviewed studies converge in pointing out that preventive strategies based on digital education and sleep hygiene are effective in reducing anxious symptoms and improving the quality of rest (OGUNDELE *et al.,* 2022). The implementation of school programs aimed at promoting mental health and the conscious use of technology contributes to the development of emotional and digital self-regulation skills. In addition, family involvement in creating structured sleep routines and monitoring screen time is essential for the success of interventions (WORLD HEALTH ORGANIZATION, 2023).

Another relevant point is the role of cognitive behavioral therapy (CBT), widely recognized as one of the most effective approaches for the treatment of insomnia and anxiety. CBT allows the identification and modification of dysfunctional beliefs related to sleep and daily concerns, in addition to favoring the development of adaptive coping strategies

(MOROMIZATO *et al.,* 2019). In adolescents, the combination of CBT with relaxation and mindfulness techniques has been shown to be especially useful in reducing sleep latency time and nocturnal anxious rumination (LEVENSON *et al.,* 2017).

However, despite the growing evidence, there are still important gaps in the literature. Most studies are cross-sectional in nature, which limits causal understanding between phenomena. More longitudinal trials are needed to assess the long-term impact of digital use on sleep neurobiology and psychological outcomes (SCOTT; BIJOOR; LEE, 2022). In addition, few studies address the role of moderating variables, such as gender, social class, and family context, in the relationship between technology, sleep, and anxiety.

Finally, the contemporary discussion on this topic needs to be guided not only by a biomedical perspective, but also by an ethical and social perspective. The exclusive responsibility of the individual or the family for the excessive use of technology ignores the influence of the economic and cultural structures that sustain digital consumption. Thus, the construction of healthier digital environments requires articulated actions between public authorities, schools, technological platforms, and civil society (WORLD HEALTH ORGANIZATION, 2023). Only with a systemic approach will it be possible to mitigate the impacts of hyperconnectivity on the sleep and mental health of children and adolescents.

6 CONCLUSION

The present narrative review shows that sleep disorders and anxiety disorders in children and adolescents are an emerging public health problem, deeply influenced by today's technological and cultural transformations. The excessive use of social networks acts as an important factor of physiological and emotional dysregulation, interfering with the sleep architecture and psychological stability of young people. Nocturnal exposure to screens, hyperconnectivity, and emotional involvement with digital platforms cause an imbalance in the circadian cycle, increased alertness, and intensification of anxious symptoms (LEVENSON *et al.,* 2017; SCOTT; BIJOOR; LEE, 2022). Thus, the contemporary digital context becomes a favorable terrain for the emergence of conditions that compromise the biopsychosocial development and quality of life of adolescents.

The analyzed findings reinforce that this relationship is bidirectional and multifactorial, involving neurobiological, cognitive, and social mechanisms. Sleep deprivation favors changes in emotional regulation and attention control, enhancing symptoms of anxiety and stress. At the same time, anxiety leads to prolonged activation of the sympathetic nervous

system, making it difficult to induce sleep and perpetuating a negative feedback loop (MOROMIZATO *et al.,* 2019 OGUNDELE *et al.,* 2022). Such evidence points to the need for integrated therapeutic approaches, involving digital education, cognitive-behavioral therapy, and sleep hygiene strategies, as well as intersectoral actions aimed at promoting mental health and the balanced use of technology.

It is concluded, therefore, that mitigating the impacts of hyperconnectivity on sleep and child and adolescent anxiety requires a collective effort, which goes beyond the clinical scope and reaches educational, family and political dimensions. The creation of school digital education programs, the strengthening of family bonds and the regulation of the use of electronic devices before sleep are priority measures. Likewise, it is essential that public managers and health institutions develop awareness campaigns about the risks of abusive use of social networks and encourage practices that promote digital well-being (AMERICAN ACADEMY OF PEDIATRICS, 2016; WORLD HEALTH ORGANIZATION, 2023). By integrating science, education, and health policies, it becomes possible to build a more balanced environment, favoring the healthy development of new generations amid the demands of the technological age.

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