

CASO CLÍNICO/CASE REPORT

Association between Maternal Depression and Sleep Disorders in Toddlers: A Case Report

Associação entre a Depressão Materna e as Perturbações de Sono na Criança Pequena: A Propósito de um Caso Clínico

✉ FRANCISCA BASTOS MAIA*¹, VÂNIA MARTINS MIRANDA¹

1. Child and Adolescent Psychiatry Resident, Centro Hospitalar Universitário do Porto, Porto, Portugal,

ABSTRACT

Poor sleep quality in childhood can lead to socio-emotional and academic problems. In early childhood, sleep is mostly influenced by environmental factors, such as the mother's mental health.

The aim of this case report is to expand the body of knowledge surrounding the association between sleep disturbances in toddlers and maternal depression.

An 18-month-old child was referred to a Child Psychiatry consultation due to multiple nocturnal awakening almost every night since he was 3 months old. The mother reports depressive symptoms. It was concluded that the child met criteria for night awakening disorder. The treatment plan included sessions to promote parenting skills and the use of prolonged-release melatonin.

The literature shows that maternal depressive symptoms are related to difficulties in initiating and maintaining sleep in young children, and it is important to diagnose and treat this symptomatology to mitigate its impact on these children's sleep.

RESUMO

A baixa qualidade do sono na infância pode culminar em problemas socioemocionais e académicos. Na infância precoce, o sono é maioritariamente influenciado por fatores ambientais, nomeadamente pela saúde mental materna. O objetivo deste relato de caso consiste em aprofundar conhecimentos relativamente à associação entre as perturbações do sono nas crianças pequenas e a depressão materna.

Uma criança de 18 meses foi encaminhada à consulta de Pedopsiquiatria por apresentar despertares noturnos desde os 3 meses. A mãe referia sintomatologia depressiva. Concluiu-se que a criança preenchia critérios para perturbação de despertares noturnos. Assim, a proposta terapêutica incluiu sessões de promoção de competências parentais e o uso de melatonina de libertação prolongada.

A literatura mostra que a sintomatologia depressiva materna se relaciona com dificuldades em iniciar e manter o sono nas crianças pequenas, sendo importante diagnosticar e tratar esta sintomatologia para mitigar o impacto desta no seu sono.

Keywords: Child Development; Depression; Infant; Maternal Behavior; Mother-Child Relations; Sleep Wake Disorders

Palavras-chave: Comportamento Materno; Depressão; Desenvolvimento da Criança; Lactente; Perturbações de Sono; Relação Mãe-Criança

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* Autor Correspondente/Corresponding Author: Francisca Bastos Maia | franciscabbmaia@gmail.com | Rua Calouste Gulbenkian, 209. 6º andar, habitação 5. 4050-145 Porto.

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INTRODUCTION

Sleep problems in early childhood are reported by approximately 20%–40% of parents.¹

During childhood, inadequate sleep quality is linked to socio-emotional problems, poor language abilities, limited academic success; increased risk of aggressiveness, anxiety, hyperactivity, attention deficit, low academic performance, and overweight/obesity.²

Sleep patterns in early childhood are shaped by a combination of genetic and environmental factors. Existing literature suggests that the environment plays a more substantial role, with maternal depression being a particularly significant influence. Beyond maternal depression, additional environmental factors, including inadequate sleep hygiene practices, early introduction of solid foods before four months, and low socioeconomic status, are also correlated with diminished sleep quality during early childhood.³

The connection between maternal depressive symptoms and infant sleep disturbance is firmly established in the literature. However, the mechanisms that underlie this association remain less understood. Some of the variability in this relationship may be attributed to biological vulnerabilities, such as elevated levels of pregnancy and perinatal cortisol and norepinephrine in depressed mothers, as indicated by recent findings highlighting the link between prenatal maternal depression and early-life night waking in infants.⁴

Increased risk of persistent regulatory problems (feeding, sleeping and excessive crying) has been found to be associated with maternal mental health problems and problems in the parent–child relationship.⁵ The parents' ability to respond to their infant's cues and signals in a sensitive and caring manner is a core factor in the developmental pathways of dysregulation in early childhood.⁶

A study of temperamental difficulties found reactive infant temperament at 6 months and maternal antenatal depression to be predictive of sleeping problems at ages 18–24 months.⁷ Moreover, these early childhood sleep problems have been associated with insufficient parental sleep, parental stress, and maternal depression.⁸ But while poor sleep during early childhood may worsen maternal mental health, it is the mother's mental health that will enable her to manage her toddler's sleeping behaviors.⁹

The aim of this case report is to expand the body of knowledge surrounding the association between sleep disturbances in young children and maternal depression, to be able to relate this knowledge to findings in clinical practice.

CASE REPORT

An 18-month-old male child was referred to a Child and Adolescent Psychiatry consultation due to sleep problems and irritability during the day with impact on family dynamics. The parents referred that he had multiple night awakenings since he was 3 months old, in which the boy woke up screaming. He slept in his own bed in a room

shared with his siblings (3 and 5 years old). When he woke up during the night, he went to his parents' bed. His bedtime routine included drinking milk in his own bed and falling asleep. He was medicated with melatonin, with no improvement. The parents brought a two-week sleep diary. He only had one night with no night awakenings. During the remaining nights, he had between two-to-four-night awakenings.

Furthermore, the parents said that he was always screaming, with no apparent triggers. He joined daycare at 10 months since his mother was exhausted. In the daycare, parents mentioned that he experienced occasional tantrums, predominantly during mealtimes. At day care, he demonstrates the ability to readily fall asleep for naps and takes a 1–2-hour nap after lunch. At home, he does not always take a nap and, when he does, it's on his mother's lap or in the stroller.

Finally, parents referred that he had a language development delay, since he only said some words like mum, dad, and hello.

Parents described the boy with a negative affective tone, with difficulties in identifying positive aspects. In addition, parents had difficulties in making adequate readings of the child's needs and dealing with his temper. Conversely, the parents noted that the siblings exhibited a calm temperament.

The child's pregnancy was desired and planned and had no complications at birth. The mother conveyed that her previous pregnancies were similarly planned and desired, and they transpired without notable incidents.

The first care was provided by the parents. In the second lockdown, she felt tired because the father was in remote work and whenever she scolded the children, they would go to him. In this context, she started exhibiting signs of a depressed mood, anhedonia, loss of energy, feelings of worthlessness, with a noticeable impact on her overall functioning. Subsequently, the mother went to a psychiatrist and was prescribed an antidepressant.

Child observation: When invited to go to the toys' table, the boy does not immediately go, but plays with a horse at his mother's feet. At a certain point, he momentarily pulls his mother to go play with him but ends up heading to the toys' table alone and accepts to play with a doctor. He initiates communication cycles with the doctors and with his parents. Reciprocal in the play, with shared pleasure. He presents with functional game and some symbolic game. Later, he sensorially explores the doctors' office. When the mother goes out of the office during the strange situation, he goes to the door and tries to open it and ends up crying. After she came in, he stays on her mother's lap, but continues to cry, pointing to the door. He ends up calming down when his mother opens a drawer and shows him some new objects. He has few vocalizations during the play with the doctor. Apparently without difficulties with comprehensive language.

Considering these parental complaints, it was decided to medicate with long-acting melatonin.

It was concluded that the child of this clinical case met criteria for night awakening disorder and language development disorder. Besides the prescription of prolonged-release melatonin, it was suggested some sessions to promote parenting skills based on Incredible Toddlers program, since we concluded that there were some problems in the parent-child relationship. In fact, on axis II of the diagnostic manual DC:0-5, which concerns the relational part, an A2B2 was assigned.

At the next appointment, two weeks later, his mother brought a one-week sleep diary. He had four nights with no night awakenings. In the other nights, he had between one and three-night awakenings. We proposed the sessions to promote parenting skills and the mother accepted. Furthermore, we referred him to the Pediatric Sleep Disorders consultation.

In the first session, we talked about the importance of parents playing with their children. In the next session, we approached some strategies to promote the linguistic skills. In the third session, we talked about social and emotional skills training. Since the second session, the boy was sleeping well with the prolonged-release melatonin, without nighttime awakenings. The mother kept her follow-up in a psychiatric consultation with an improvement in her mood. The mother missed the fourth session. One month later, she asked to reschedule the appointment.

After one month, he came to the consultation with his father. He referred that, for a month now, the medication had a lesser effect. In fact, since a month ago, the child has a nighttime awakening almost every night. Nonetheless, when he goes to his parent's bed in the middle of the night, the parents take him back to their own bed, where he quickly falls asleep again. Additionally, the father mentioned that now he is calm during the day, with few tantrums.

Since the sessions to promote parenting skills, the father says that they have implemented some strategies, such as providing a transitional object for the child to self-regulate upon waking at night. However, playtime was still scarce.

In the last appointment, after two months, he came to the consultation with his mother. His mother said that he is sleeping well almost every night. Recently, he had a gastroenteritis and did not take the long-acting melatonin, but still slept well. Nevertheless, last week, he did not take the medication for two nights, and he slept well in the first night, but had some nighttime awakenings during the second night. His mother mentioned that it seems that when he does not take the medication, he has a less restful sleep and is more irritable during the day. She adds that now he is taking a nap after lunch at home in his own bed. Considering that he was sleeping better, and he is less irritable during the day, it was decided to keep the medication, keep the follow-up in the Pediatrics Sleep Disorders consultation, refer him to the Developmental Pediatrics consultation to monitor his Language Development Delay and discharge him from Child and Adolescent Psychiatry consultation.

DISCUSSION

Effectively, a recent study showed that symptoms of adverse maternal mental health were related to higher levels of toddler's difficulties in initiating or maintaining sleep.⁹ Indeed, poor sleep behaviors interrupt the sleep of both toddlers and mothers. It seems that mothers who are depressed, stressed, and with low self-efficacy relate to toddler's difficulties in initiating or maintaining sleep. In fact, when mothers are depressed and stressed, they may feel overwhelmed and exhausted by the demands of parenthood. Coupled with low self-efficacy, these mothers may have difficulty providing the optimal environment for healthy toddler's sleep.⁹ During the first appointment, the mother expressed feelings of low maternal efficacy and described being overwhelmed by the challenges of motherhood amid the COVID-19 pandemic. As indicated by existing literature, these circumstances may have played a role in the emergence of depressive symptoms.

A study about toddlers' bedtime routines showed that, among other factors, maternal depressive symptoms were associated with decreased implementation of a nightly bedtime routine among mothers of toddlers.¹⁰ For example, reading a story at bedtime has been associated with positive cognitive outcomes and language development in young childhood. One recommended strategy involved incorporating bedtime reading, which not only proves to be a more beneficial sleep routine than drinking milk but also contributes positively to the child's language development. Furthermore, sleep is essential for cognitive and emotional daytime functioning, in addition to broader family functioning.¹¹ This fact is particularly evident in this clinical case, considering that the boy's sleep improvement resulted in a significant decrease in his daytime irritability. In fact, interventions to address toddlers' sleep problems may not only improve sleep for toddlers, but also improved sleep and wellbeing for mothers. For example, in a study with mothers of infants with sleep problems, after a behavioral intervention, the mothers experienced decreased depressive symptoms.¹² The amelioration of the mother's depressive symptoms became apparent during the follow-up of this case. While the antidepressant treatment undoubtedly contributed to this improvement, it's crucial not to discount the impact of the parenting skills sessions, which resulted in enhancements in the child's sleep pattern and daytime behavior.

Another study from 2019 showed that regulatory problems were associated with contemporarily measured maternal mental health problems and parent-child relational problems.⁶ These findings are in line with previous research that indicates that parent-child relationship problems have a key position in the developmental trajectories of regulatory problems, with maternal mental health problems significantly influencing the associations between parenting quality and child outcomes.⁸ These difficulties in parent-child relationship were identified in this case and they were the ones who motivated the suggestion of parenting skills promotion sessions.

A study about cumulative socio-demographic risk factors and sleep outcomes in early childhood found that depressive

symptoms are one of the factors most predictive of poor sleep outcomes.¹³ Considering the emerging research on associations between behavioral child sleep problems and caregiver depressed mood,¹⁴ it was not surprising that this cumulative risk factor was significantly and independently linked to increased child insomnia symptoms. The explanation could be that caregivers with increased depressive symptoms are less tolerant of child bedtime resistance and other insomnia symptoms and that these child behaviors exacerbate low caregiver mood. Overall, caregiver

depressive symptoms appear to be a salient factor in identifying children with sleep disorder symptoms and in conceptualizing preventive intervention strategies to mitigate the onset or worsening of sleep problems.¹⁴

In the future, it is important to carry out research on innovative methods to either incorporate caregiver mood management into behavioral sleep interventions or to deliver intervention to caregivers with low mood to prevent behavioral child sleep problems.¹⁴

APRESENTAÇÕES / PRESENTATIONS

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RESPONSABILIDADES ÉTICAS

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