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[Archived] Services and Programs Proven Effective in Managing Infant/Child Sleep Disorders: Comments on Wiggs, Owens, France and Blampied

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Introduction

Pediatric sleep disturbances are one of the most common problems experienced by young children and their families.[1] These sleep problems are experienced by approximately 20% to 25% of children between the ages of one and five and are one of the most common complaints presented to pediatricians.[2] These types of sleep disturbances also tend to persist, especially from infancy to later childhood.[3] Furthermore, an important aspect of pediatric sleep disturbances is their impact on social and emotional development, as well as on family well-being. Wiggs, Owens, and France & Blampied are four leading researchers in the area of young

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children's sleep disturbances. Their research and interest in this field have been instrumental in what we know to date.[4] These authors have provided an excellent overview of the field to date, as well as future directions.

Research and Conclusions

Wiggs provides a context for understanding pediatric sleep disturbances, pointing out that sleep is an infant's main activity during early development. Young children spend more time asleep than awake in the early years. She then presents an overview of services and programs for sleeplessness in young children, primarily encompassing bedtime disturbances and night wakings. She concludes her review of the area by noting the efficacy of behavioural interventions in this important clinical area. These behaviourally based problems are highly amenable to intervention. The need for more objective independent measures of a child's sleep, rather than parental report, is identified as important, as well as the need for more research on treatment delivery issues.

Owens continues the discussion of management of pediatric sleep disturbances by aptly outlining the theoretical impact of sleep disturbances on daytime functioning. She highlights the relationship between sleep and mood, performance and behaviour. Mood disturbance is the most often identified result of inadequate sleep, not only the occurrence of negative mood following a poor night's sleep but also the inability to regulate mood, which may have long-term implications for emotional health. Behavioural manifestations include poor attention and impaired impulse control. Owens notes that sleep problems in children have a significant negative impact on families, especially those with children who have a chronic illness or a neurodevelopmental delay. It cannot be stressed enough that sleep disturbances affect not only the child, but the entire family. Her review identifies a solid body of literature supporting empirically-based non-pharmacological treatment of infant and toddler sleep disturbances. Thus, there are evidence-based practice parameters for practitioners in this area. Finally, she indicates a number of variables that need to be taken into consideration when designing and implementing interventions, including child factors (e.g. temperament), parenting factors (e.g., discipline style, education level) and environmental factors (e.g., physical environment, family composition).

France and Blampied expand the discussion of pediatric sleep disturbances beyond those that are behaviourally based to include physiologically-based sleep disorders, including parasomnias (e.g. sleepwalking, sleep terrors), circadian rhythm disorders (e.g. delayed sleep phase

syndrome) and sleep-disordered breathing. These disorders need to be considered in addition to those that are more psychosocially based, such as bedtime resistance, sleep-onset delay and recurrent night wakings. As noted by the other authors, some treatments for behaviourally based disorders are empirically well validated, although more research is needed on the development of infants' ability to self-soothe, the behavioural traps that maintain these disorders, and the impact of treatment on attachment, adjustment and family well-being. The other group of disorders identified by France and Blampied as biomaturational (including sleep terrors and delayed sleep phase syndrome) pediatric sleep disturbances have received less study and require increased research attention. Furthermore, France and Blampied note the need for increased research and services for families with children with chronic illnesses and disabilities, as well as studies investigating cultural factors of pediatric sleep.

Implications for Development and Policy

As the authors note, there is no question that there is a wealth of information on the prevalence and treatment of pediatric sleep disturbances, primarily those that are behaviourally based. However, research now needs to take the next steps in understanding issues related to pediatric sleep disturbances. Although negative implications have been identified in terms of daytime functioning and well-being for both the child and the family, little research has specifically studied the impact of sleep disturbances on social and emotional development, as well as health outcomes. What are the short- and long-term implications of ongoing sleep disturbances, as well as the results following treatment of such disturbances?

Additionally, the cultural and family context of sleep practices has only recently begun to be identified as an important aspect of services and programs for managing pediatric sleep disturbances and disorders. Both Owens and Wiggs allude to these culturally based issues as integral to the management of young children's sleep disturbances. Acceptance and practices of co-sleeping across cultures need to be integrated into management recommendations and decisions. Furthermore, the role of sleep within the larger family context and the sleep needs of all family members should be taken into consideration.

Another area of study and public policy is the role of pharmacological management of pediatric sleep disturbances. To date, there are no approved medications in the United States specifically indicated for pediatric insomnia (or sleeplessness). Clearly medications are needed to deal with these issues in specific populations, such as those with neurological impairments, developmental

disorders such as autism and Rett's syndrome, and children with psychiatric issues, such as attention-deficit hyperactivity disorder, depression or bipolar disorder. Research needs to be conducted in this area and pharmacological options and policies on their use need to be developed.

Finally, efforts need to be made in the public education of parents, educators and health-care professionals. Initial efforts have been undertaken, such as the focus on the sleep of children and their caregivers during National Sleep Awareness Week in 2004, an education effort sponsored by the National Sleep Foundation in the United States. Interestingly, poll results on sleep practices of American children, as well as recommendations on best sleep practices, were not only widely covered by media outlets throughout the United States, but also received extensive international coverage, including media stories in such disparate countries as Korea, Australia, Russia, Canada, Singapore, European countries and Australia. The findings from the related Sleep in America poll of sleep practices of children from birth to age 10 and their caregivers clearly noted that sleep problems are highly prevalent, and that they have a negative impact on children and their families. Education is the key not only to the treatment of existing sleep disturbances, but more importantly, for the prevention of sleep problems and the development of best sleep practices. These education efforts clearly go beyond parents to our educational systems and to health-care practitioners. Wiggs concurs that "current professional sleep education is globally poor."

By focusing on education, prevention and appropriate treatment guidelines (both behaviourally and medically based), we can help ensure that children's sleep problems are recognized, diagnosed and appropriately treated. Our society needs to continue to focus on the sleeping half of children's lives as much as on the waking half, and also recognize and understand the connection between sleep and daytime functioning

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