

Title:

Parenting Bedtime Behaviors and Sleep Among Toddlers Living With Socioeconomic Adversity

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Session Title:

Socioeconomic Effects in Pediatrics

Slot:

H 16: Saturday, 29 July 2017: 8:30 AM-9:15 AM

Scheduled Time:

8:50 AM

Keywords:

children, disparities and sleep

References:

El-Sheikh M, Bagley EJ, Keiley M, Elmore-Staton L, Chen E, Buckhalt JA. Economic adversity and children's sleep problems: Multiple indicators and moderation of effects. *Health Psychology*. 2013;32(8):849-859.

Magee CA, Gordon R, Caputi P. Distinct developmental trends in sleep duration during early childhood. *Pediatrics*. 2014;133(6):e1561-1567.

Gellis LA. Children's Sleep in the Context of Socioeconomic Status, Race, and Ethnicity. In: El-Sheikh M, ed. *Sleep and Development: Sleep and Development: Familial and Socio-Cultural Considerations* Oxford Scholarship Online; 2011:219-244.

Caldwell BA, Redeker NS. Maternal stress and psychological status and sleep in minority preschool children. *Public health nursing (Boston, Mass.)*. 2015;32(2):101-111.

Abstract Summary:

Consistent with other health disparities, sleep disparities occur in children living in socioeconomically disadvantaged homes, and emerging literature suggests that this disparity begins at age 12 months. This presentation will report findings of a study conducted with toddlers (ages 12-15 months) and their parents living in socioeconomically disadvantaged homes.

Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
The learner will be able to describe how parenting interactions at bedtime influence toddler sleep patterns.	This presentation will describe parenting interactive bedtime behaviors and report findings on which behaviors are helpful and disruptive to toddler's sleep.

The learner will be able to identify differences in sleep patterns among toddlers living with socioeconomically disadvantaged families.	A brief literature review and data will be described highlighting the sleep disparities among toddlers living with socioeconomic disadvantage and what is needed to effectively address this disparity
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Abstract Text:

Purpose: Sleep problems are very prevalent during the first year of life with 20-30% of infants reported to have a sleep problem. Families most commonly seek support from pediatric health care clinicians regarding their infant and toddler's bedtime resistance and frequent and prolonged night waking. While much has been published describing sleep patterns and sleep interventions to assist parents in helping their children initiate and maintain sleep, the majority of this literature included children living with middle to high incomes. Consistent with other health disparities, sleep disparities occur in children living in socioeconomically disadvantaged homes and emerging literature suggests that this disparity begins at 12 months. Hence, there is a need to develop interventions to support families living with socioeconomic adversity. The first step, however, is to determine if the significant associations between parenting bedtime interactions and sleep patterns of infants and toddlers commonly reported among families living in families of middle to high incomes is also observed among families living with socioeconomic disadvantage. This presentation will report findings of a study conducted with toddlers (12-15 months old) and their parents living in socioeconomically disadvantaged homes. Because one of the most commonly reported sleep problems among toddlers is night waking, the focus of our presentation will be the relationships between parenting interactive bedtime behaviors and disrupted sleep and night waking.

Methods: The sample includes 33 healthy toddlers and a parent who live with socioeconomic adversity. Data was collected during two data collection visits. Demographic information collected from the caregiver included their own gender, age, race/ethnicity, marital status, family housing, family income, education level, federal and state assistance, and number and age of children. Data was also collected on the toddler's race/ethnicity, age, gender, birth and medical history. Data on sleep characteristics included subjective and objective measures of sleep duration and efficiency, obtained with questionnaires, diaries, and nine days/nights of actigraphy. In addition to caregiver education collected with the demographics, income to needs ratio was collected as a measure of adversity. Income-to-needs ratio is a standard measure of a family's economic situation. The self-report Parental Interactive Bedtime Behavior Scale (PIBBS) is a 19-item Likert-type parent questionnaire that measures the interactive behaviors caregivers use with their children at bedtime. Five subscales and a total score are calculated: 1. Active physical comforting, 2. Encourage autonomy, 3. Settle by movement, 4. Passive physical comforting, 5. Social comforting. Associations of parenting bedtime interactions and sleep characteristics were examined using Spearman correlation coefficient.

Results: Sleep duration among the toddlers was just over 8 hours – much below the 10-13 hours of sleep recommended for this age group by the United States based National Sleep Foundation. Disrupted sleep (sleep fragmentation) and waking after sleep onset (WASO) between the toddlers were not associated with any of the parenting bedtime interactive bedtime behavior. However, there were significant associations between total parenting interactive behaviors and passive physical comforting and WASO ($r=.37$, $p=.05$ and $r=.52$, $p=.002$, respectively) within toddlers over the course of their week-long monitored sleep. Similarly, a significant association was found between total parenting interactions and sleep disruption within toddlers ($r=.36$, $p=.05$).

Conclusion: As described in the extant literature, the findings of this study support the connection between parenting interactions and toddler sleep patterns based on the variability of sleep disruption and night waking within the toddlers week-long monitored sleep. While active physical comforting (e.g. rocking to sleep, patting or rubbing child's back, etc.) is most commonly associated with sleep patterns in infancy and toddlerhood, findings from this study suggest that passive physical comforting (presence of the parent in the room to fall asleep) was the strongest association with individual variability of the

toddler's disrupted sleep and night waking. Future directions for this work include adding biomarkers of stress response to determine how characteristics of sleep in toddlers are associated with their stress response system as well as additional parenting variables to identify the characteristics of parenting linked to toddler sleep patterns in this populations. These results will then be used to inform the development of future health promotion interventions focused on improving sleep early in life.