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COMMENTARY

Considering the source: implications of factors affecting parent-proxy reports of pediatric sleep

Commentary on Burdayron R, Butler BP, Béliveau MJ, Dubois-Comtois K, Pennestri MH. Perception of infant sleep problems: the role of negative affectivity and maternal depression. *J Clin Sleep Med*. 2021;17(6):1279–1285. doi:10.5664/jcsm.9188

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Pediatric medicine often relies heavily on a proxy report (generally from a parent/guardian) on a patient's symptoms. Among older children, there is less reliance on the parent report; however, for infants and younger children, it is often the exclusive source of information directing assessment and intervention. In this issue of the *Journal of Clinical Sleep Medicine,* findings from Burdayron et al[1] suggest considering variables that may affect parent report of sleep problems. Specifically, they found that infant temperament and maternal self-report of depression predicted reports of problem sleep in infants, independent of data collected through sleep logs. This suggests the need to incorporate recognition of the role of maternal depression and parent report of temperament into a thorough assessment of infant sleep patterns.

Data showing parent report being discrepant from other respondents or objective testing are not new. As such, literature exists in several disciplines on influences of reports on child behaviors, including parenting stress, depression, and child behavior.[2] It should be noted that trends in these data are not consistent; however, individual studies prompt questions related to interpretation of parent report. As an example, parent-reported self-efficacy predicted negative infant temperament—even when self-efficacy was assessed prior to the child's birth.[3] Another study[4] noted that maternal mental health symptoms predicted higher distortions in the reporting of a child's internalizing (eg, worries, sadness) relative to externalizing behaviors (eg, hitting, fidgeting excessively). This suggests that maternal mental health symptoms could have an impact not just on reporting of symptoms but also on the type of behaviors reported.

Studies focusing on sleep and influences on reports of child behaviors tend to focus on correlations between parent report, child report, and objective indices of sleep. Parents appear to reliably report on more discrete symptoms (snoring) in younger (ages 5–7 years) children.[5] Lower correlations between parent report and objective indices of sleep are noted when asking about granular data on sleep patterns,[6,7] although if time frames are limited,[8] then data are more reliable. Ufer-Maurer et al[9] demonstrated that maternal or paternal insomnia symptoms were associated with higher reports of child problem behaviors around sleep not explained by objective measures.

Within research, good scientific practices provide protection from some of these influences. Appropriate sampling methods and inclusion of both proxy-reported and objective measures can increase the likelihood of capturing sleep constructs more precisely. This paper highlights the need to advance the science by identifying respondents who present with concerns that influence report of sleep or behavior. Outside of the group described in this report, others who may be similarly at risk given the literature in other areas include parents of pediatric patients with internalizing (anxiety, depression) concerns[4] and stressed parents.[2] Again, while trends on influences on respondent reporting are most definitely not conclusive,[4] consideration of the impact of the respondent's cognitive or emotional status should be given when interpreting results.

Based on the above concerns about parental report, clinical assessment of pediatric sleep problems would entail a thorough assessment of both child behavior (including sleep) and parental mental health. Clinically, the implications are difficult and beyond the scope of most visits outside of referrals to behavioral sleep clinics. Barriers such as limited time for visits, limited resources if problems such as parental depression are identified, lack of access to objective measures of sleep (eg, actigraphy), and lack of reimbursement for when actigraphy is available all hinder the ability of clinicians, especially within a primary care setting, to adequately address a child's sleep problems. For the clinician, assessment of multiple informants (eg, mother and father, father and teacher) can buffer the influence of a specific respondent's reporting. In addition, incorporating screening questions into a clinical interview that assesses parenting stress or their own sleep patterns may provide a broader context to the information retrieved.

Variable correlations between parent report and more objective indices of behaviors are not a phenomenon exclusive to sleep. While the trends should not call into question every parent report of pediatric sleep or behavior, it is a consideration

warranting review in both research and clinical settings, as Burdayron et al[1] highlight.

CITATION

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REFERENCES

1. Burdayron R, Butler BP, Béliveau MJ, Dubois-Comtois K, Pennestri MH. Perception of infant sleep problems: the role of negative affectivity and maternal depression. *J Clin Sleep Med*. 2021;17(6):1279–1285.
2. Lohaus A, Rueth JE, Vierhaus M. Cross-informant discrepancies and their association with maternal depression, maternal parenting stress, and mother-child relationship. *J Child Fam Stud*. 2020;29(3):867–879.
3. Verhage ML, Oosterman M, Schuengel C. Parenting self-efficacy predicts perceptions of infant negative temperament characteristics, not vice versa. *J Fam Psychol*. 2013;27(5):844–849.
4. Kroes G, Veerman JW, De Bruyn EEJ. Bias in parental reports? Maternal psychopathology and the reporting of problem behavior in clinic-referred children. *Eur J Psychol Assess*. 2003;19(3):195–203.
5. Montgomery-Downs HE, O'Brien LM, Holbrook CR, Gozal D. Snoring and sleep-disordered breathing in young children: subjective and objective correlates. *Sleep*. 2004;27(1):87–94.
6. Short MA, Gradisar M, Lack LC, Wright H, Carskadon MA. The discrepancy between actigraphic and sleep diary measures of sleep in adolescents. *Sleep Med*. 2012;13(4):378–384.
7. Mazza S, Bastuji H, Rey AE. Objective and subjective assessments of sleep in children: comparison of actigraphy, sleep diary completed by children and parents' estimation. *Front Psychiatry*. 2020;11:495.
8. Combs D, Goodwin JL, Quan SF, et al. Mother knows best? Comparing child report and parent report of sleep parameters with polysomnography. *J Clin Sleep Med*. 2019;15(1):111–117.
9. Urfer-Maurer N, Weidmann R, Brand S, et al. The association of mothers' and fathers' insomnia symptoms with school-aged children's sleep assessed by parent report and in-home sleep-electroencephalography. *Sleep Med*. 2017;38:64–70.

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All authors have approved the manuscript. Dr. Dore-Stites serves on the Scientific Advisory Board for Reverie and as a reviewer in pediatric behavioral sleep medicine for Up To Date. Dr. Hassan has no financial conflicts to report.