

Real-World Implementation of Infant Behavioral Sleep Interventions: Results of a Parental Survey

Sarah M. Honaker, PhD¹, Amy J. Schwichtenberg, PhD², Tamar A. Kreps, PhD³, and Jodi A. Mindell, PhD^{4,5}

Objective To describe parental practices implementing behavioral sleep intervention (BSI) outside a clinical setting.

Study design Parents (n = 652), recruited through a Facebook group designed as a peer support group for parents using BSI, completed an online survey about their experience using BSI with their infant or toddler.

Results On average, parents implemented BSI when their infant was 5.6 (± 2.77) months. Parents most often used modified (49.5%) or unmodified extinction (34.9%), with fewer using a parental presence approach (15.6%). Regardless of BSI type, more parents endorsed “a great deal of stress” during the first night (42.2%) than 1 week later (5.2%). The duration of infant crying was typically greatest the first night (reported by 45%; $M = 43$ minutes) and was significantly reduced after 1 week ($M = 8.54$ minutes). Successful implementation of BSI on the first attempt was reported by 83%, with a median and mode of 7 days until completion (79% by 2 weeks). Regardless of BSI type, after intervention parents reported their infant had less difficulty falling asleep, fewer night awakenings, and were more likely to sleep in their room and/or in their own crib/bed.

Conclusions The majority of parents report successfully implementing BSI, with significantly reduced infant crying by the end of 1 week and success within 2 weeks. Few differences were found between behavioral approaches. (*J Pediatr* 2018;■■■:■■-■■).

Whereas night awakenings in newborns are common and expected, an estimated 20%-30% of older infants and toddlers have frequent problematic night awakenings that require parental intervention throughout the night.¹⁻³ Bedtime problems and night awakenings persist in young children⁴ and have been associated with daytime behavior difficulties,^{1,5,6} reduced health-related quality of life,¹ and negative health outcomes.^{5,7-9} In addition, these night awakenings are linked with parental stress,¹⁰ maternal depression,¹¹ and overall poorer caregiver physical and mental health.¹² On a societal level, sleep problems in young children are associated with significant increases in healthcare costs.¹³

Previous studies document that behavioral sleep intervention (BSI) reduces problematic infant night awakenings, leading to improvements in child sleep as well as child and family functioning.¹⁴⁻¹⁶ BSI in infants and young children, sometimes called “sleep training,” is a term used to describe a variety of approaches parents use to encourage infants to fall asleep independently. Beneficial outcomes include improvements in child daytime functioning (eg, crying, mood), parent mood and stress, parent sleep, and marital satisfaction, with no studies finding adverse outcomes.^{1,14} Although the efficacy of BSI with young children has been well documented in clinical trials,^{12,13} little is known about parental experience implementing BSI outside a clinical or research setting. Furthermore, few studies have documented the process of implementing BSI, such as the duration of crying, number of days until completion, and parental stress.

Thus, the aim of the current study is to describe parental experience using BSI with infants and toddlers in a real-world setting. Specific domains measured in this survey include intervention approach, implementation details, and perceptions of the stress and success of the BSI. A better understanding of parental experience with infant BSI can be used to craft and refine guidance for health care providers and parents.

Methods

Participants were recruited to complete an online survey via posts on a Facebook group called Respectful Sleep Training/Learning. This group was in existence for about 3 years before the survey and serves as a peer support group for parents using BSI of all kinds. The group is not owned by a commercial or professional entity but is maintained and moderated by approximately 10 parent volunteers. Group members (generally parents who are currently implementing BSI or considering BSI in the future) opt to join the group by making a request through their Facebook account.

From the ¹Department of Pediatrics, Indiana University School of Medicine, Indianapolis, IN; ²Department of Human Development and Family Studies, Purdue University, Lafayette, IN; ³David Eccles School of Business, University of Utah, Salt Lake City, UT; and ⁴Department of Psychology, Children's Hospital of Philadelphia; and ⁵Department of Pediatrics, Saint Joseph's University, Philadelphia, PA

J.M. receives grant support and is a consultant for Johnson & Johnson Consumer Inc. S.H. is a consultant for Google LLC. The other authors declare no conflicts of interest.

Portions of this study were presented as an abstract at the Pediatric Sleep Medicine Conference, November 2-5, 2017, Amelia Island, Florida.

0022-3476/\$ - see front matter. © 2018 Elsevier Inc. All rights reserved.

<https://doi.org/10.1016/j.jpeds.2018.04.009>

BSI Behavioral sleep intervention

The survey was hosted on an external survey Web site (Qualtrics, Seattle, Washington). Group administrators posted a request (3 posts across 2 weeks in September 2016) and link for members who were parents/caregivers of a young child to complete the survey. We did not offer any payment or incentive for participating and emphasized that participation was voluntary and would not affect their membership in the Facebook group. The study was considered by the Office of Research Compliance at the Indiana University School of Medicine as exempt from Human Subjects Review and no identifying information was collected.

Parents were asked retrospectively to describe their child's sleep using items from the Brief Infant Sleep Questionnaire¹⁷ during the 2 weeks before and 2 weeks after BSI. Parents with more than 1 child were asked to respond about the child with whom they had most recently completed BSI. Additional questions included (1) age of the child at time of implementation; (2) specific approach implemented; (3) parent and child response to BSI, which included factors such as number of days implemented, duration of infant crying, and parental stress; and (4) sources from which parents received help and support for BSI. Parents were asked to rate the amount of informational support (defined as information about sleep training methods or infant sleep patterns, scheduling, and norms) they received from a variety of sources, with the response options of not at all, some, or very much. The categories some and very much were combined in the analysis to describe the percentage of the sample receiving support from each source.

We defined 4 specific BSI approaches for respondents. Unmodified extinction was defined as a parent leaving the room and not returning to check on the infant (sometimes called "cry it out.") We described modified extinction as an approach in which a parent leaves the room but returns at intervals to check or reassure the infant (eg, Ferber method). Two additional methods included (1) parental presence, defined as a parent staying in the room continuously without providing additional support, and (2) parental presence with support, defined as staying in the room continuously and providing help (eg, patting, picking up) until the infant was asleep.

Results

Participants (n = 796) followed the link to the survey and completed at least one item. We omitted data from 144 participants who completed 5 or fewer questions (thus providing no information about their BSI process), leaving a final sample of 652 participants (demographics provided in Table I). Of the 652 participants who completed our minimal threshold (5 questions), we compared those who completed the entire survey (n = 484) with those who left any time before the last question (n = 168) on the following variables: child age at start of BSI, child current age, type of BSI, overall level of satisfaction with BSI, intensity of child's cry, number of days to successfully complete BSI, and parent stress on the first night of a BSI and 1 week later. Unfortunately, most of the sociodemographic questions were at the end of the questionnaire;

Table I. Sample descriptive statistics

Characteristics	n*	Range	M ± SD or n (%)
Infant/toddler			
Sex (% male)	489		261 (53.4)
Age, mo [†]	652	1-66	12.50 ± 8.46
Caregiver			
Sex (% female) [‡]	491		490 (99.9)
Age, y	488	20-44	31.73 ± 4.16
Education	492		
High school/GED			11 (2.2)
Some college/associates degree			76 (15.4)
Bachelor's degree			186 (37.8)
Master's degree			156 (31.7)
Doctoral/professional degree			31 + 32 (12.8)
Race and ethnicity [§]	484		
American Indian or Alaska native			5 (1.0)
Asian			52 (10.7)
African American or black			5 (1.0)
Hispanic or Latino			31 (6.4)
Native Hawaiian or Pacific Islander			1 (0.2)
Caucasian or white			414 (85.5)

GED, General Education Development.

*Respondents answered the majority of the demographic information at the end of the online survey; therefore, 160 respondents are not represented in this table because they left this survey before the demographic questions were cued.

[†]Age of child at time the survey was completed.

[‡]Reported sex included 490 female and 1 queer-identified.

[§]Reporters could check all boxes that apply; overall, 462 (96%) only reported one race or ethnicity and 22 (4%) reported more than 1.

therefore, our ability to assess differences in race, ethnicity, age, and education were limited.

Participants were more likely to complete the entire survey if they used 1 of the extinction-based BSIs (76%-80% completed the entire survey) compared with those using a parental presence BSI (60%-70% completed the entire survey), $\chi^2(3) = 11.28, P = .01$. However, this should be interpreted with caution, given the relatively small number of participants within the parental presence BSI groups. In addition, participants were more likely to complete the survey if they reported greater levels of stress on the first night of their chosen BSI, $F(1, 512) = 26.69, P < .01$. All other considered variables were comparable.

Data from 136 (17%) families who reported that BSI implementation was more than 1 year ago were not included for questions pertaining to specifics of implementation. Given the level of detail requested from families (eg, how many minutes did your child cry on the first night), our research team felt minute-level data may not be accurately recalled after 1 year. Therefore, when referencing time elements, data from 516 families (83%) were included.

Statistical Analyses

Initial data inspection revealed that 17 responses were deemed inconsistent/unlikely (eg, parent response times of 0.3 minutes) and were removed for these responses only, with all other data retained. This reflects <0.01% of the provided responses; given this low percentage, imputation for missingness was not warranted. No differences across infant sex were found for any variables. χ^2 analyses for categorical variables and ANOVA for continuous variables were conducted across the 4 BSI approaches. We used a Bonferroni correction to reduce type I error

Download English Version:

<https://daneshyari.com/en/article/8812061>

Download Persian Version:

<https://daneshyari.com/article/8812061>

[Daneshyari.com](https://daneshyari.com)