

One-Session Group Parent Training in Positive Routines for Bedtime Noncompliance in Head Start Children

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Background

Bedtime noncompliance, a pattern of behavior characterized by stalling, whining, crying or tantruming when bedtime is imminent, can be a significant problem for some families of preschool and elementary school aged children. There are several treatments for bedtime noncompliance that have been found to be effective, such as extinction-based procedures and positive routines, but there are several weaknesses in the treatment literature that need to be addressed (Ortiz & McCormick, 2007). First, most interventions contain multiple components (e.g. establishing a routine, positive reinforcement, extinction, faded bedtime). Very few studies have sought to examine the effectiveness of one isolated treatment component. Second, current treatments for bedtime noncompliance have been insufficiently studied on non-white and low-income families, leaving it unclear whether previous findings using these treatments are generalizable to these populations. Third, given the problems associated with longer interventions (e.g. cost, dropout) it is unknown whether extremely brief (one or two-session) treatments can significantly reduce bedtime struggles and improve problematic child and family variables associated with bedtime noncompliance. Finally, very few community-based, effectiveness studies have been completed to date, so it is unclear whether the impressive results obtained in some efficacy studies can be replicated outside of research settings. The present study sought to address all four weaknesses in the research by examining the effectiveness of a one-session, Positive Routines intervention, conducted at a Head Start preschool, with a sample of low-income, African-American parents.

We hypothesized that a sample of parents trained in the use of a low-stimulation nighttime routine with faded bedtime (with a de-emphasized extinction component) would report: (1) significantly reduced time for their child to become quiet after being put to bed; (2) a significant reduction in the number of times the child left their bedroom after being put to bed; (3) a significant increase in child cooperativeness at bedtime; (4) a significant reduction in child daytime externalizing behaviors (as measured by parents and teachers); and (5) increased child total sleep time. In addition, we predicted that their participating parents would (6) show substantial improvements in their own sleep quality; (7) show significant reductions in parenting stress during the prebedtime routine; (8) demonstrate significant improvements in depression and overall parenting stress levels; and (9) report high overall treatment satisfaction.

Method

Participants Eight mothers and 1 father participated in the study. All parents identified themselves as African-American. The average household income range was \$20,000 to \$39,999. In this interrupted time-series design, parents participated in one of two groups, depending on the preschool that their child attended.

Assessment Parents completed a number of assessment instruments at pretest, posttest, and 2-month follow up. The assessment packets included the Children's Sleep Habits Questionnaire (CSHQ; Owens, Spirito, & McGinnis, 2000), the Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999), which we used to assess parents' views of their child's daytime level of noncompliance, and the Sutter-Eyberg Behavior Inventory-Revised (SESBIR) which was used to assess teacher reports of classroom behavior problems. In addition, we used the Parenting Stress Index-Short Form (PSI-SF; Abidin, 1990) and the Beck Depression Inventory-Fast Screen (BDI-FS; Benedict, Fishman, McClellan, Bakshi, & Weinstock-Guttman, 2003) to assess parent functioning. Treatment satisfaction was measured by the Therapy Attitude Inventory (TAI; Brestan, Jacobs, Rayfield, & Eyberg, 1999).

In addition, parents were called daily to collect data. The parents for each group had an 8-day baseline period, a 21-day treatment period, and a 14-day follow-up period, beginning two months after the workshop. Parents were asked six questions during each nightly phone call. Each question had a Likert-type response scale. The questions were:

- How well did your child behave during the twenty minutes before bedtime?
- How many minutes did it take your child to become quiet after being put to bed?
- How many times did your child leave the room after being put to bed?
- What level of stress did you experience with regard to your child's bedtime behavior?
- Rate the quality of sleep you had last night.
- Rate how well you adhered to treatment instructions.

Teachers were called daily and asked to assess two items:

- How was the child's behavior today?
- In the morning, up until an hour before naptime, how sleepy did the child seem today?

Intervention Parents in each group were invited to attend a single ninety-minute workshop. The workshop opened with a short, guided discussion between the leader and parents about what happens at bedtime in each parent's home and how he or she feels about it. Parents were informed about common problems associated with bedtime noncompliance and nighttime wakings and how the use of positive routines can be helpful and even enjoyable. Parents were given psychoeducation about child development with regard to sleep, the association between cues for sleep and sleep onset, and the importance of regularity of bedtimes and of sleep environment. Methods for implementation of positive routines were taught to parents according to Milan et al.'s (1981) description of the positive routines intervention, with some modifications, the most important of which was the removal of the extinction component and the addition of a calming technique. In the workshop, parents were asked to identify 5 to 7 pre-bedtime activities to which their child had historically shown no resistance. These included self-help skills as well as high-pleasure (though not high-stimulation) activities. Each parent was given a chart to use with his or her child during the nightly routine. This chart was made of a foam board with Velcro pads and removable pieces that showed African American children engaging in typical pre-bedtime activities (brushing teeth, taking a bath, etc.) that ended with a sun symbol to indicate successful completion of the routine in the morning. Two days after the treatment session, the therapist phoned each parent to inquire about how the new sleep procedures worked and to offer any additional advice or support that they needed. These phone calls lasted about 5 minutes each, and all but one parent was clear on the protocol.

Results

Due to space limitations, visual representation of a select number of daily assessments are presented below. In addition, paired t-tests were conducted comparing pretest with posttest and follow-up scores.

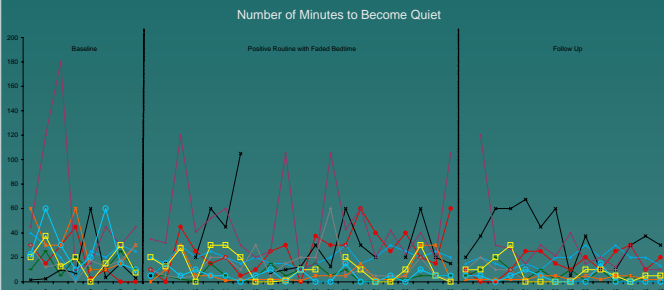


Figure 1: Number of minutes it took child to become quiet after being put to bed. Absence of data point signifies that parent reported no data for the child for that day. Black 'x' = Participant #1; Purple diamond = Participant #2; Change = Participant #3; Red 'o' = Participant #4; Turquoise triangle = Participant #5; Blue 'o' = Participant #6; Gray + = Participant #7; Yellow box = Participant #8; Green = Participant #9.

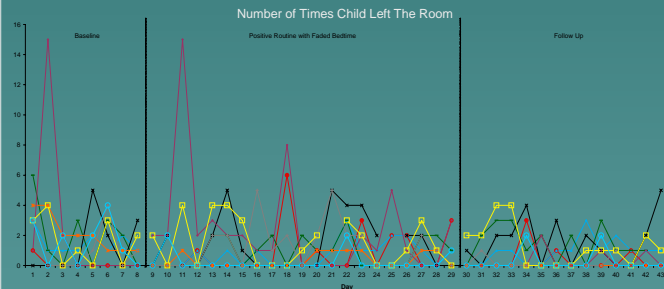


Figure 2: Number of times child left the bedroom after being put to bed. Absence of data point signifies that parent reported no data for the child for that day. Black 'x' = Participant #1; Purple diamond = Participant #2; Change = Participant #3; Red 'o' = Participant #4; Turquoise triangle = Participant #5; Blue 'o' = Participant #6; Gray + = Participant #7; Yellow box = Participant #8; Green = Participant #9.

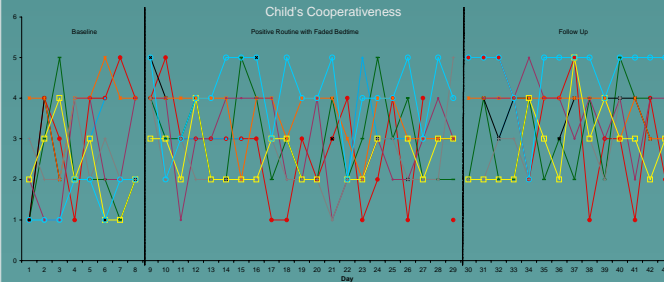


Figure 3: Child's behavior (i.e., cooperativeness) during the prebedtime routine. 1 = poor behavior; 6 = very good behavior. Absence of data point signifies that parent gave no data for the child for that day. Black 'x' = Participant #1; Purple diamond = Participant #2; Change = Participant #3; Red 'o' = Participant #4; Turquoise triangle = Participant #5; Blue 'o' = Participant #6; Gray + = Participant #7; Yellow box = Participant #8; Green = Participant #9.

Changes from Pretest to Posttest

Measure	Pre-treatment Mean	Post-treatment Mean	Significance Level (2-tailed)	Effect Size (<i>d</i>)
CSHQ	52.22	45.00	.001	1.77
BDI-FS	2.56	.67	.030	.88
PSI Total	70.67	64.11	.133	.56
ECBI Intensity	116.00	99.56	.04	.80
SESBIR Intensity	111.11	106.11	.594	.19

Changes from Pretest to Follow-Up

Measure	Pre-treatment Mean	2 Month Follow-up Mean	Significance Level (2-tailed)	Effect Size (<i>d</i>)
CSHQ	52.22	43.78	.001	1.66
BDI-FS	2.56	1.56	.340	.34
PSI Total	70.67	63.78	.29	.37
ECBI Intensity	116.00	96.22	.017	1.01
SESBIR Intensity	111.11	96.11	.140	.55

Discussion

To our knowledge, this study is the first of its kind in three ways: 1) It is the first to examine the effects of an intervention consisting purely of positive routines without an extinction component; 2) It is the first to examine the effectiveness of a one-session workshop; and 3) It is the first study to examine a bedtime noncompliance intervention for a sample of exclusively low-income, African Americans. Large improvements were observed at posttest and follow-up in bedtime behavior as measured by the CSHQ and in daytime behavior, as reported by parents on the ECBI. More modest improvements were seen on teacher ratings of daytime behavior and on parent reports of symptoms of depression, and parenting stress. Based on the daily phone calls, parents reported that in general, children went to bed more quickly and came out of their rooms fewer times. Parent reports of child cooperativeness were largely unchanged. It is clear that this intervention had some positive effects, with some parents seeing larger results than others. It is also clear that this treatment was not as successful as previous published studies of positive routines (or other leading interventions, such as Faded Bedtime and Extinction procedures) in rapid and significant reduction of bedtime resistance. It is possible that the omission of an extinction based treatment component accounted for this difference. The positive news is that we now have evidence that an intervention for bedtime noncompliance that does not include extinction can still be effective. This finding is important, given the strong aversion many parents have to extinction based sleep interventions. In our sample, after reading a description of an extinction procedure for bedtime noncompliance, only one of the nine parents found it completely acceptable.

Future studies should replicate these results with larger samples. In addition, it is clear that many families experiencing bedtime noncompliance do not seek treatment. Future studies are needed to better understand parental reluctance to seek treatment, given that families can be helped in as little as one session. Also needed are studies that examine modifications to sleep treatments that take into account cultural and socio-economic differences among families. For example, as found in previous studies of sleep habits among African Americans (Lozoff, Askew, & Wolf, 1996), there was a high prevalence of intentional co-sleeping in this sample.

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