

Part 4: Assessment and Treatment of Sleep Problems

Sleep Goals

Describe your goals regarding your child's sleep:

- 1) _____

- 2) _____

- 3) _____

- 4) _____

- 5) _____

Circle the Specific Sleep Problems

Nighttime routine noncompliance

Interfering behavior

Delayed sleep onset

Night awakening

Early awakenings

First step: Optimizing the Schedule

Three main considerations for optimizing the sleep schedule:

1. Recognize age-appropriate sleep amount
2. Recognize importance of current *sleep phase* and *forbidden zones*
3. Recognize universal tendency to go to bed later and wake up later each 24 hr cycle

Making an appropriate schedule for your child

1. Identify current time child falls asleep: _____
 - a. and add 1 hour: _____
 - b. *This is the time to put your child to bed on first night of sleep treatment.*
2. Add the total hours of sleep your child needs (see chart): _____ to the time identified above: _____
 - a. *This is your child's goal wake time on first morning. Do not let child sleep beyond this time.*
3. Gradually transition the "go to bed" and "rise" times by moving bed/rise times backwards 15-30 min when the child falls asleep within 15 min of being put to bed.
4. Goal rise time: _____ dictates goal "go to bed" time: _____

Next step: Nighttime Routine and Bedroom Considerations

Nighttime Routine Considerations

- Activities progress from active to passive
 - Baths earlier in routine
 - Ambient light gets progressively dimmer
 - Light snacks without caffeine
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Bedroom Considerations

- Cooler temperature
 - Indirect lighting only
 - Non-undulating noise
 - Best toys/preferred activities not visible
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Considerations for Addressing Nighttime Routine Noncompliance

1. Start routine just prior to natural sleep phase
 2. Promoting instruction following during the day
 - *Play “name game” and see last page for additional daytime strategies.*
 3. Arrange big discrepancy in consequences for compliance vs. noncompliance to routine
 - *Remember the goal of behavioral quietude*
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Next Step: Understanding and Optimizing Sleep Dependencies

Some important facts:

- Transitioning from behavioral quietude to sleep depends on the presence of stimuli associated with falling asleep
- Stimuli that set the occasion for sleep must be there through the night because children wake up often during the night
- When the things that occasion sleep are not present when the child wakes up during the night, persistent night awakenings are experienced.
- When the things that occasion sleep are suddenly removed or inconsistently available, sleep onset delay develops and interfering behavior is learned over time during the delay
- Optimal sleep dependencies share these characteristics:
 - (a) don't require your presence,
 - (b) can be there in the middle of the night, and
 - (c) are transportable (e.g., for vacations or nights at Grandparent's home)

Describe the child's current sleep dependencies here:

Describe how you will eliminate the current troublesome sleep dependencies (e.g., all at once or via fading):

Describe the new sleep dependencies that will be introduced:

Next Step: Understanding and Addressing Interfering Behavior

Interfering behaviors are behaviors that interfere with behavioral quietude necessary for sleep onset; the big three are leaving bed (curtain calls), crying / calling out, playing in bed or in bedroom (this includes motor or vocal stereotypy). It is most important to properly consider what the likely reinforcers are for the interfering behavior:

- Attention / Interaction
- Food / drink
- Access to TV or toys (made available by parents)
- Escape/avoidance of dark or of bedroom
- Automatic reinforcers (those directly produced by the behavior)

To address the interfering behavior:

1. Identify the form of the interfering behaviors.
2. Identify the likely reinforcers for the interfering behaviors.
3. Provide the presumed reinforce(s) prior to bidding the child good night.
4. After bid goodnight, eliminate access to presumed reinforce(s) following interfering behavior.
 - With socially mediated IB, options include:
 - Extinction, Progressive Waiting, *Time-Based Visiting*, *Bedtime Pass*, Quiet-Based Visiting, Quality Fading
 - With automatically-reinforced IB, options include:
 - Relocation of relevant materials
 - Blocking

Identify the form of the interfering behaviors:

Identify the likely reinforcers for the interfering behaviors:

Describe how the reinforcers will be provided prior to bedtime

Describe how the reinforcers will be withheld following interfering behavior after the bid good night

The hour prior to putting yourself in bed:

5. Have a snack at night that is high in complex carbohydrates and protein, and avoid foods with a high glycemic indexes as part of your nighttime snack. Also, avoid chocolate because it contains caffeine.
6. Eliminate all medication prescribed to improve sleep. The medications interfere with the learning that is required for you to be an effective sleeper and often allow only for low quality sleep (e.g., less than optimal REM sleep). If you feel compelled to use a pill to help you sleep, consider 1.5 to 4 mg of melatonin taken 30 to 45 min prior to going to bed while the ambient lighting is reduced.
7. To minimize the mental rumination that often occurs when people go to bed, consider writing down your reflections of the day and plans for tomorrow before or during your nighttime routine. Even just spending a few moments thinking about your day and planning for tomorrow (e.g., when you brush your teeth), is a good habit. Do not reflect and plan with your phone or laptop unless it is 30 min removed from when you put yourself in bed.
8. Establish a nighttime routine that involves dimming of the ambient lighting, decreased reliance on screen time, cooler ambient temperature, and a consistent pattern of actions during the 15 to 30 min prior to going to bed (e.g., reflect on your day, plan for tomorrow, change into pajamas, brush teeth, read a book in a chair, turn on your sound machine, lay down in bed).

When to go to and get out of bed:

9. To enhance the value of sleep at the start of sleep treatment, put yourself to bed one hour later than when you fell asleep the night before. If you fall asleep quickly (within 15 min) on the first and subsequent nights, put yourself to bed 15 to 30 min earlier the next night until you are going to bed at a time that allows you 7.5 to 8 hours of sleep before your alarm goes off. Try not to stay in bed for more than 8.5 hours each 24 hour period.

Considerations while in bed:

10. Optimize sleep dependencies (those events that without which you cannot fall asleep) by making sure they are present throughout the entire night, do not require any resetting during the night, and are transportable (e.g., consider a white noise machine on continuously while you are in bed). Avoid falling asleep outside of your bed (e.g., on the couch) or with a radio or television on that automatically shuts off during the night.
11. Optimize your sleep context by making it dark (consider room darkening curtains) and relatively cool, by masking ambient noise that may alert or awake you by using a white noise machine on at conversational volume, and by removing any objects that may encourage behavior that is incompatible with sleeping (e.g., remove cell phones, all other electronic gadgets including an alarm clock, textbooks from sight).
12. To address long delays to sleep onset and awakening during the night, consider the following: Get out of bed if you are not asleep within 10-15 min, sit in chair and read a literary classic under low light for 15-30 min or until drowsy, then return to bed. In other words, if you are not sleeping for 15 min at the beginning of the night or in the middle of the night, *get out of bed* (i.e., do not practice not sleeping in bed, because you will then get good at it). When you get out of bed, read a book, but do not do anything that is highly reinforcing, completes a goal, or involves electronic screens (i.e., do not do the laundry, clean the house, check email, make a snack, surf the web, watch TV, complete an assignment, email, tweet, instant message, blog or check emails, tweets, IMs, or blogs).
13. To address difficulty getting out of bed in the morning, consider the *Sleep Cycle* application available on smart phones. Relying on the accelerometer in smart phones, the application allows for your phone-based alarm to go off when you are transitioning out of sleep as opposed to going off when you are in a relatively deep stage of sleep (you set a 30-minute window for your alarm to go off). The phone is placed out of sight under the fitted sheet each night.

Ten Compliance Strategies for Use in the Home by Parents of Young Children (1 to 12 years of age)
(Developed by G. Hanley and L. Beaulieu)

1. Decrease the amount of instructions per day.

2. Eliminate instructions from play-based (free play, child-led) interactions. During these play times, focus simply on watching your child, commenting on their play when you are genuinely impressed by what they are doing or have done, and being available for when they want you to see their accomplishments.

3. Only provide instructions with which you can follow through (e.g., motor-based instructions). In other words, eliminate instructions to eat, sleep, pee/poop on the toilet, talk (e.g., say they are sorry). These are skills that require some sort of shaping if they are not occurring at developmentally appropriate times.

4. Provide many choices during the day outside of instructional situations to give the child some degree of control (e.g., choosing which of several outfits to wear, what to have for snack from an array of choices, the order in which to complete chores or academics).

5. Always call the child's name prior to an instruction, pausing, and then only deliver the instruction after the child has stopped what they were doing, said "yes," and is looking at you. Teach this skill by:

- a. Letting the child know that you expect him or her to stop, look, say, "yes," and wait for further instruction when they hear their name being called.
- b. Calling the child's name just prior to giving compliments, snacks, preferred activities. In other words, we would like them to perk up when their name is called, so make sure that when they hear their name, it is not always followed by an instruction; make sure good things happen after their name is called.

6. Deliver clear, concise, and direct instructions ("Billy, put all of the blocks in the bucket"); avoid vague (e.g., "Shape up"), wordy, or indirect instructions (e.g., "It would be nice if somebody cleaned up stuff").

7. If your child does not yet engage in the name response, try to get close to child and on their level, touch their shoulder or forearm, and provide some brief attention (e.g., a compliment) before delivering the instruction, then frame the instruction as a “do” as opposed to “don’t” instruction, and place your hands on their hands if their hands are still “busy.”

8. Deliver instructions using 3-step prompting (tell, show, help) and always follow through with that which was instructed.
- a. Once you have the child’s attention, deliver a specific and clear instruction (e.g., “Pick up the toy”).
 - b. If the child does not comply within 5 s to your clear and concise instruction, repeat the instruction, this time modeling the specified action (e.g., instruct him/her to pick up the toy, while showing him the action of picking up the toy).
 - c. If the child still does not comply following 5 s, repeat the instruction, while physically guiding the child to complete the instruction (e.g., use hand-over-hand guidance to have the child pick up the toy). Always use the least amount of physical assistance when guiding the desired response while maintaining a positive to neutral tone of voice; it is important not to complete the instruction for the child once an instruction has been delivered, or provide any attention to inappropriate behaviors during the instructional sequence.
 - d. If the child complies with an instruction following the first (verbal) or second (verbal plus model) prompt, praise the child while describing the instructed behavior (e.g., “Thank you for picking up the toy” or “Good job picking up the toy”). If you have to use physical assistance with the instruction (third prompt), do not provide praise, simply move on to the next instruction or activity.

9. Provide authentic praise and acknowledgement (and sometimes “upgrades” or rewards) when your child complies with your instructions. By contrast, withhold quality attention (both positive and negative types of attention) following noncompliance (and ensure that follow through is provided).

10. If the child becomes aggressive or highly disruptive following an instruction, implement a safe and effective time-out period (e.g., 1 to 2 min without access to any reinforcers); once the time out period is over, re-issue the same instruction that occasioned the aggressive behavior.
