Addressing Sleep Problems of Children With ASD

BCBA: Matt Heininger

Date: 10/9/2023

Our Mission

To make a socially meaningful change in the lives of children and families.

Prevalence of Sleep Problems

Medical Considerations

Behavioral Assessments

Treatment Strategies

Data on Sleep Problems

- Genetic Lineage
  - Ancestral history vs. modernized social behavior patterns
  - We are built to sleep in a particular context yet expected to sleep in a different context
  - Why is 12:00am, called "midnight"?

- Sleep problems are prevalent in:
  - 35-50% of young children
  - 63-73% of children diagnosed with autism

- Sleep problems are persistent and usually do not diminish over time naturally

Data on Sleep Problems

- Without good sleep, children

  - More irritable

  - Easily fatigued

  - Less likely to follow instructions

  - Impacts learning opportunities

  - Increased likelihood of problem behaviors

- Lack of sleep is associated with:

  - Childhood and adult obesity

  - Emotional and behavioral problems in adolescents

  - Anxiety in adulthood

  - Sleep problems in adulthood

Prevalence of Sleep Problems

- Sleep problems on family dynamics
  - Increased maternal depression
  - Parental sleep problems
  - Erosion of parent/child relationship

- Parents 1st consultation with pediatrician
  - 5 hours of training (average)
  - Medication prescribed is mixed in effectiveness

- 22% of the time, behavioral solutions are recommended
  - (Stojanovski et al. 2007)

Common Sleep Problems

- Non-compliance with nighttime routines

- Sleep-interfering behavior

- Delayed sleep onset

- Night awakenings

- Early awakenings

Traits of Good Sleep

- Falling asleep quickly

- Staying asleep through the night

- Rising without trouble in the morning

- Not feeling drowsy during the day

5-Step Treatment Plan

- Developed from Jin, Hanley, Beaulieu (2013)

- Step 1: Develop an ideal sleep schedule

- Step 2: Routinize Nighttime Routine

- Step 3: Optimize Bedroom Conditions

- Step 4: Regularize Sleep Dependencies

- Step 5: Address Sleep Interfering Behavior
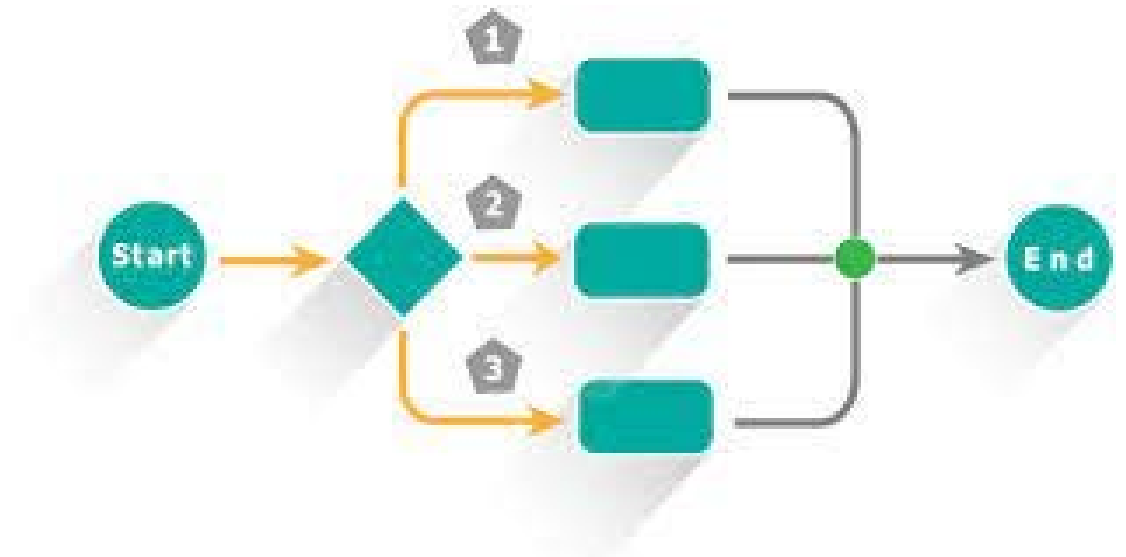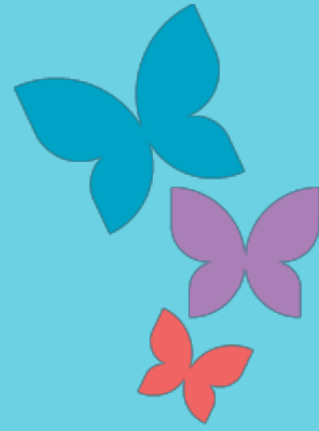
Behavioral Assessments

To Address is to Assess

- Eliminate interfering behaviors and environmental cues that reduce likelihood of falling asleep

- To employ clinical assessment tools to identify problematic factors
  - Behavioral Interviews
  - Sleep Assessment and Treatment Tool (SATT)
    - Developed by Dr. Gregory Hanley
  - Examples: Sugar before bedtime, non-compliance with night routine, night waking

- Direct observation if possible

Sleep Assessment and Treatment Tool
Developed by Gregory P. Hanley Ph.D. BCBA-D (2005)

Step 1: Basic Information

Date of interview/workshop:

Child's name: _____ Child's birth date: _____ Check one: Male ☐ Female ☐

Name(s) of caregiver(s) who puts the child to bed:

Phone: _____ Address:

Email:

Child medical or educational diagnoses:

Does your child engage in severe problem behavior like aggression towards adults or self-injury? Yes ☐ No ☐
If yes, please describe:

To Address is to Assess

- Expectations of Parents/Caregivers
  - Journaling
  - ABC Narrative Logs
  - Time stamping sleep routines (falling asleep, waking up)

- Once baseline has been established, we can rule out recommendations across disciplines and begin treatment

Treatment Options
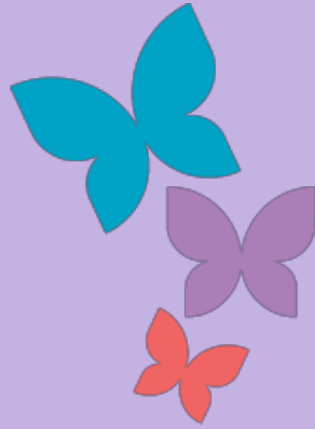
Treatment Strategies

Treatment Strategies

- Results will indicate whether variables identified require ABA support, a medical professional or both.

  - Medical consultation can include
    - Pediatrician
    - Neurologist
    - Biofeedback
    - Sleep specialists

Treatment Strategies

- Disclaimer: The strategies discussed are not recommendations

1. Identifying the right sleep schedule

2. Fading Naps

3. Environmental modifications

4. Reward systems to increase adherence to nighttime routines

5. Redirections, Blocking/Bedtime Pass

Identifying Sleep Schedules and Naps

- Set sleep routine slightly later than regular bedtime

- Then gradually transition sleep phase earlier until desired bedtime is achieved (Piazza, 1991)
  - 15–20-minute increments

- Consider fading mid-day naps if your child is older than 3 and:
  - Wakes up consistently in the middle of the night
  - Struggles falling asleep at desired times at night

Environmental Modifications

- When routinizing sleep schedules create emphases within the night routines
  - Establish a night routine if you have not already

  - Shift activities from active to passive
    - To use visual/picture schedules if needed

  - Frontload exercise and baths earlier in routine
    - Minimize the "rush" between activities within night routine

  - Shift from bright to ambient light that gets progressively dimmer

  - AVOID transitions that include highly preferred activities to non-preferred/aversive events

Environmental Modifications

- For bedroom conditions, modify your environment and consider the following:
  - Cooler temperatures
    - Research indicates best temperature range being 60-68 degrees Fahrenheit
  - Minimal lighting (indirect lighting only)
  - Steady white noise is OK
    - As long as sound patterns do not change
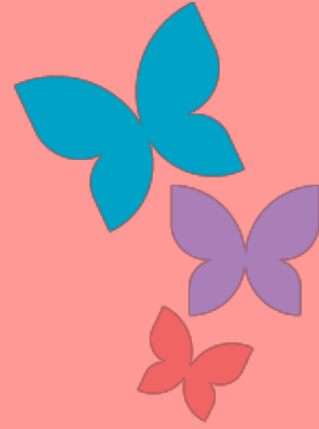 - Remove preferred toys/activities out of sight

Reward Systems

- For individuals that are resistant and display problematic behaviors during night routine and reinforcement/rewards remains influential across days:

  - Regiment fixed sleep routines that do not fluctuate

  - Create token charts, first/then arrangements to incentivize adherence to following instructions

    - Ex: Good first time listening or 3 stars = iPad time in the morning
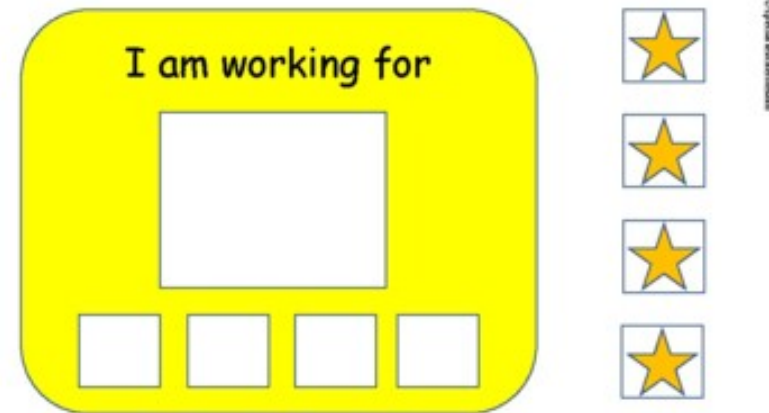
Bedtime Pass

- For those who night wake, resulting in increased parental attention and struggles going back to sleep
  - Bedtime Pass
    - Providing the child, a bedtime pass to be used as needed after the bid good night to have one request granted
    - If # of occurrences of getting out of bed is exceedingly higher, consider providing more than 1 bedtime pass initially then fade out the number each night

  - Blocking/Redirection
    - For behaviors that are maintained by parental attention or automatically reinforcing

References

- Piazza (1991), A faded bedtime with response cost protocol for treatment of multiple sleep problems in children; Journal of Applied Behavior Analysis

- Hanley (2012), Functional assessment of problem behavior: Dispelling myths, overcoming implementation obstacles, and developing new lore; Behavior Analysis in Priace

- Jin, Hanley, Beaulieu (2013), An individualized and comprehensive approach to treating sleep problems in young children; Journal of Applied Behavior Analysis

Thank You!