

# Welcome to UVM/AHEC ECHO: Children's Mental Health

## Facilitators:

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Guest Speaker: Pamela Swift, PhD

- RECORDING OF SESSION TO BEGIN

# Agenda

- Introductions
- Objectives
- Didactic Presentation (20-25 min)
- Case presentation
  - Clarifying questions
  - Participants – then faculty panel
- Discussion
- Recommendations
- Summary
- Closing Announcements
  - Submission of new cases
  - Completion of evaluations



# CME Disclosures

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# Series Objectives

- By the end of this series, the learners should be able to:
  - Feel more comfort and confidence in **identifying, treating, and referring** a variety of complex children's mental health presentations.

# Lecture Objectives

- By the end of this activity, the learners should be able to:
  - Differentiate between common sleep disorders in children/adolescents
  - Identify options for sleep training and understand how to approach those with interested families
  - Discuss sleep hygiene plans and routines with patients and families



# Interventions for Sleep Disorders



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# Outline

- Common sleep disorders
  - Behavioral Insomnia of Childhood / Insomnia
  - Obstructive Sleep Apnea
  - Nightmares and Parasomnias
- Evidence-based treatments
- Case examples
  - CBT-I
  - Sleep Training





# Common Sleep Disorders



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**TABLE 1.** Evaluation of sleep complaints and pertinent clinical history

SLEEP COMPLAINT	EXPLORING PERTINENT HISTORY
Difficulty falling asleep	Habitual bedtimes (sleep onset/offset on weekdays and weekends/holidays)
	Time taken to sleep onset; "desired" bedtime
	Duration, frequency, and severity of complaints
	Inappropriate nap schedules
	Family history
	Negative associations (fears, worries) with distressing sensorimotor symptoms of restless legs syndrome, nightmares
Difficulty staying asleep (and/or multiple nocturnal awakenings) ± early morning awakenings	Difficulty sleeping through the night (nighttime awakenings, early morning awakenings), activities during the awakenings
	Screen for mood and anxiety symptoms
	Screen for primary sleep disorders (sleep apnea)
	Family history
	Use of alerting substances at bedtime
Excessive daytime sleepiness (EDS)	Total duration of nocturnal sleep
	Quality of morning awakenings
	Difficulty to stay awake in the classroom, while driving, watching TV, eating meals
	Persistent use of stimulants (e.g., nicotine, caffeine) to stay awake
	Exploring other potential symptoms associated with disorders of excessive sleepiness (such as cataplexy, sleep paralysis, sleep attacks, hallucinations)
	Daytime consequences of sleepiness (poor academic performance, learning difficulties, impaired concentration, disruptive behaviors, mood symptoms)
	Family history
	Medication use (long-acting psychotropic medications with "hangover" effects)
	Substance use (alcohol and other illicit drugs, over-the-counter medications)
Poor sleep routine and sleep hygiene due to environment and psychosocial variables	Occupation (odd hours at employment, shift-work schedules)
	Social environment (co-sleeping/sharing bedroom, sleep patterns of parents and other children, pets in bedroom)
	Housing (light, noise, and temperature)
	Activities at bedtime (computer/telephone, homework completion, TV viewing)
	Substance use (alcohol and other illicit drugs, caffeine intake, nicotine use, over-the-counter medications)
	Parental involvement (limit setting, adult supervision)



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ASSESSMENT AND TREATMENT OF  
COMMON PEDIATRIC SLEEP DISORDERS



# Behavioral Insomnia of Childhood / Insomnia

- Basic insomnia criteria: trouble falling asleep, trouble maintaining sleep, and/or early morning awakenings
  - At least 3 nights per week for 3 months despite adequate opportunity for sleep
- Estimated to impact approx. 36% of preschoolers, 20% in school age (5–10 year old), and 24% of adolescents

# Behavioral Insomnia of Childhood

Table 1— Diagnostic Criteria of Behavioral Insomnia of Childhood

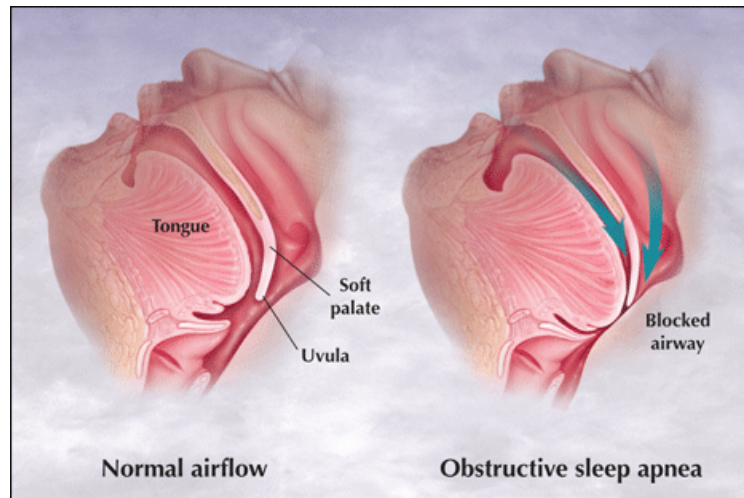
- A. A child's symptoms meet the criteria for insomnia based upon reports of parents or other adult caregivers.
- B. The child shows a pattern consistent with either the sleep-onset association type or limit-setting type of insomnia described below:
  - i. Sleep-onset association type includes each of the following:
    1. Falling asleep is an extended process that requires special conditions.
    2. Sleep-onset associations are highly problematic or demanding.
    3. In the absence of the associated conditions, sleep onset is significantly delayed or sleep is otherwise disrupted.
    4. Nighttime awakenings require caregiver intervention for the child to return to sleep.
  - ii. Limit-setting type includes each of the following:
    1. The individual has difficulty initiating or maintaining sleep.
    2. The individual stalls or refuses to go to bed at an appropriate time or refuses to return to bed following a nighttime awakening.
    3. The caregiver demonstrates insufficient or inappropriate limit setting to establish appropriate sleeping behavior in the child.
- C. The sleep disturbance is not better explained by another sleep disorder, medical or neurological disorder, mental disorder, or medication use.

American Academy of Sleep Medicine. The International Classification of Sleep Disorders, 2nd ed.: Diagnostic and Coding Manual. Westchester, IL: 2005.<sup>33</sup>



# Obstructive Sleep Apnea (OSA)

- Airway completely or partially collapses repeatedly throughout night
- During sleep, soft tissues of throat relax and can block upper airway



Obstructive sleep apnea occurs when muscles at the back of the throat relax and obstruct airflow. These muscles normally support your tonsils and tongue, the soft palate on the roof of your mouth, and the uvula, which hangs from the soft palate at the back of your mouth.

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# Obstructive Sleep Apnea (OSA)

- Can be hard to diagnose in childhood
  - Snoring in childhood is generally not normal
- Symptoms (aside from snoring) can be more subtle
  - Avoiding naps when tired
  - Hyperactivity
  - Irritability
  - Concentration/focus problems
  - Behavioral dysregulation
- Not necessarily overweight



# Nightmares and Parasomnias

- Parasomnias include sleep walking, sleep talking, and sleep terrors
  - All generally occur in NREM, primarily SWS
  - Sleeper has no awareness of behaviors
- Nightmares are often more easily remembered, especially if the nightmare was occurring during REM sleep
- \*\*REM Behavior Disorder



# Nightmares and Parasomnias

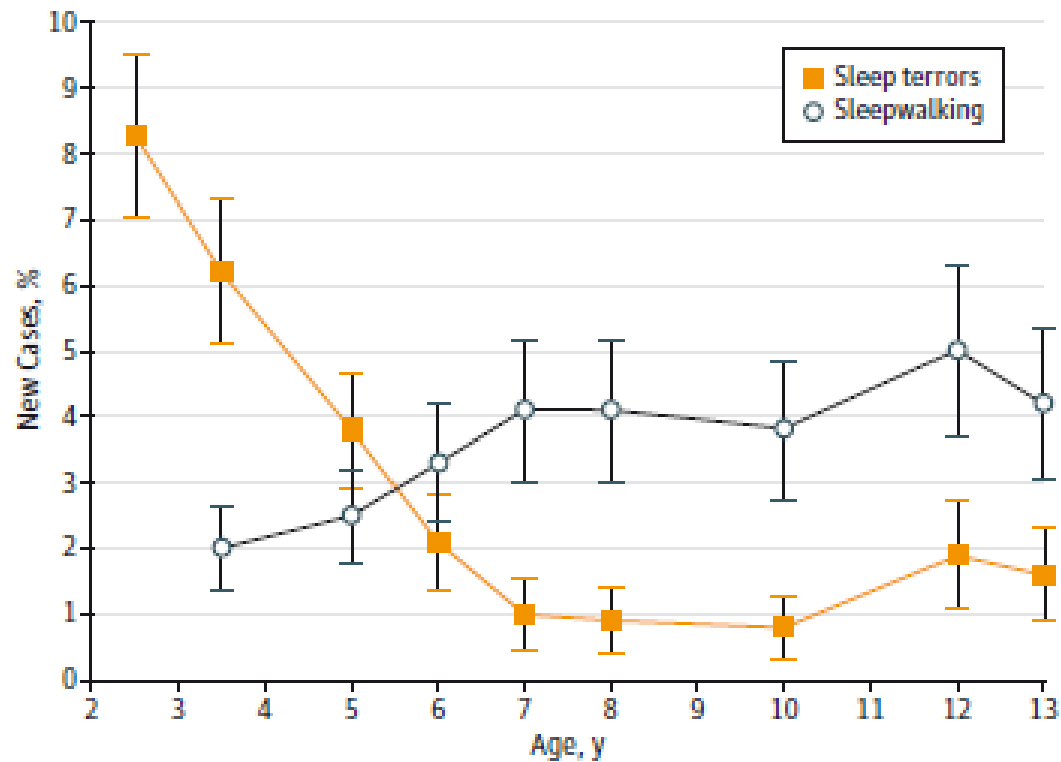
Characteristic Features of Sleep Terrors, Nightmares, and RBD			
	Sleep Terrors	Nightmares	RBD
Typical Age of Presentation	2-4 years	School age	Adolescence into adulthood
Associated Sleep Stage	NREM	REM	REM
Typical Time of Night	Occur anytime during period of sleep	Occur in last half to third of sleep period	Occurs in last half to third of sleep
Characteristic Features	<ul style="list-style-type: none"> <li>- Abrupt awakening, typically associated with a scream</li> <li>- Intense autonomic discharge including tachypnea, tachycardia, and sweating</li> <li>- Typically cannot be soothed or comforted during the episode</li> <li>- Child is amnesic at the time of event and the following morning</li> <li>- Brief, lasting a few minutes</li> </ul>	<ul style="list-style-type: none"> <li>- Awake in state of distress after distressing dream with negative emotional response</li> <li>- Mild tachycardia associated with level of anxiety response</li> <li>- Consolable</li> <li>- Dream is typically recalled in detail after the event and the following morning</li> <li>- Associated with prolonged period of wakefulness after the event</li> </ul>	<ul style="list-style-type: none"> <li>- Occurs in last half to third of sleep</li> <li>- Talking, shouting, gesturing during sleep</li> <li>- Dream enactment behavior with potentially injurious behavior</li> <li>- Vivid dream recall after the event</li> <li>- May be presenting sign of narcolepsy</li> <li>- Can be associated with other neurologic disease</li> </ul>





# Nightmares and Parasomnias

Figure. Onset of New Cases of Sleep Terrors and Sleepwalking as a Function of Age



# Evidence-Based Treatments (EBTs)



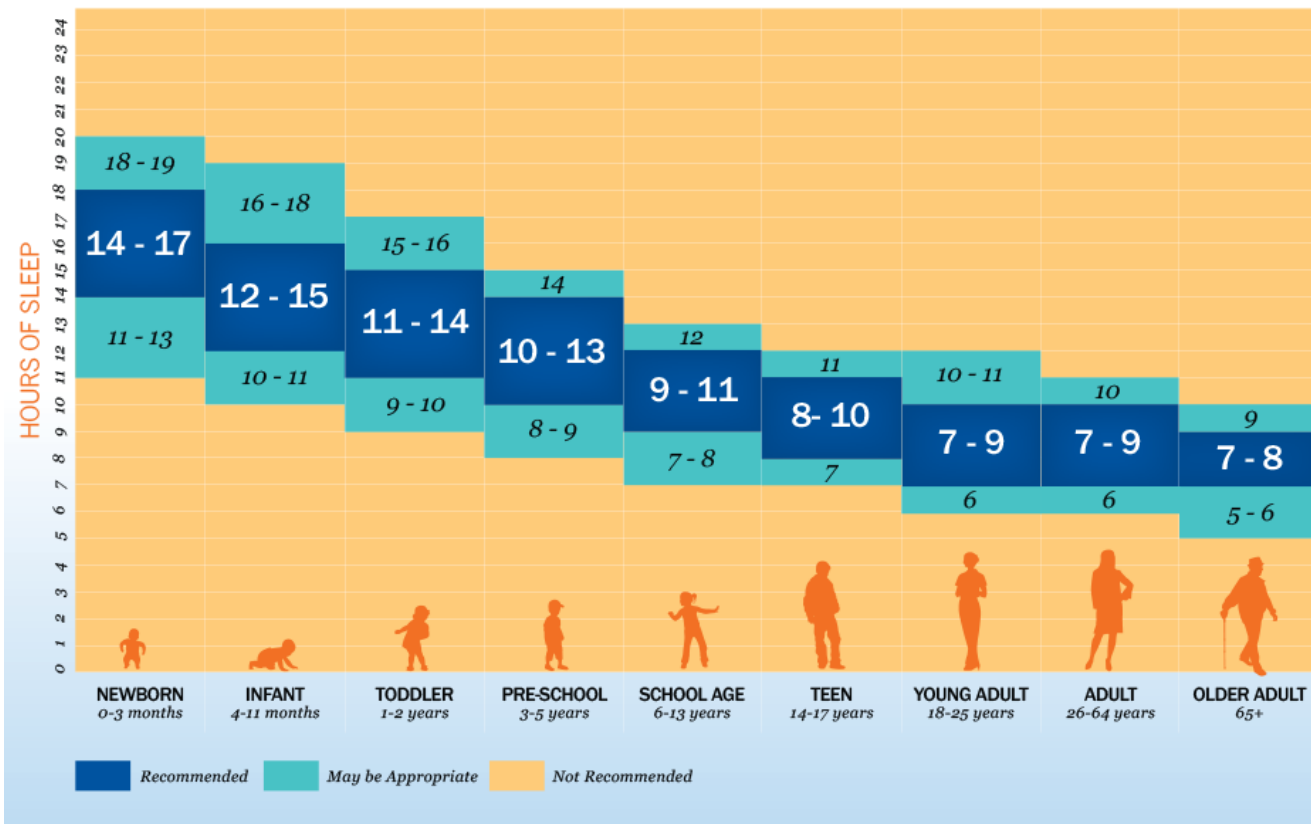
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# NSF Sleep Recommendations



## SLEEP DURATION RECOMMENDATIONS



# EBTs: Behavioral Insomnia

- Behavioral Parent Education- Information on...
  - Reinforcers versus Punishers
  - Coercive Parenting Cycle
  - Functions of Behavior
  - Attention versus Ignoring
  - Creating and Following Bedtime Routine

# EBTs: Behavioral Insomnia

**TABLE 2. Behavioral treatments for insomnia of childhood**

TREATMENT METHOD	MOST RELEVANT POPULATION	DESCRIPTION
Age appropriate and consistent bedtime and sleep schedule	All children	Child is put to bed at developmentally appropriate bedtime consistently 7 days a week with minimal variation
Bedtime routine	All children	A series of subsequent steps taken in the half hour prior to bedtime. Steps are completed in same manner each night to “cue” that initiation of sleep time is approaching. Should be no longer than 30 minutes with 2–3 relaxing activities (bath, story) and end in the bedroom. For younger children or developmentally delayed children, incorporate picture charts. Can also check off boxes and earn stickers for completion of each step of the routine or completion of the entire routine.
Extinction	Young children	“Cry it out” method. Child is placed in bed or crib while still awake, then parents are instructed not to respond to cries or protests. Must warn parents of extinction burst, as protests will first increase prior to decreasing.
Graduated extinction	Young children	Child is placed in bed or crib while still awake, then parents leave the room and wait increasing numbers of minutes before re-entering the room for a brief, neutral interaction with the child. After each re-entry, the number of minutes before the next entry is gradually increased after each trial and over the course of several days.  Also used to fade parental presence to teach child to fall asleep independently. Rather than leave the room, the parent moves further away from the child every few nights. In both cases, warn parents of extinction burst that may occur within first few nights.
Positive routines	Young children	Implement bedtime routine that is positive and enjoyable parent-child interaction with one or two of child’s preferred activities. Parent provides consistent praise, but if child refuses a step or tantrums, the routine is ended, child is put to bed, and interaction ceases.
Faded bedtime	Young children, young children with late bedtime	Child is put to bed close to time he or she is most likely to fall asleep. Once falling asleep within 15–20 minutes, bedtime is moved 15 minutes earlier every 2–3 nights until desired bedtime is reached.
Faded bedtime with response cost	Young children, children with developmental delays	Child is put to bed close to time he or she is most likely to fall asleep. Once falling asleep within 15–20 minutes, bedtime is moved 15 minutes earlier every 2–3 nights until desired bedtime is reached. Once in bed, if child does not fall asleep quickly within a set period of time, child is removed from the bed for a specific period of time.
Scheduled awakenings	Young children	Establish baseline pattern of awakenings using sleep diary. Within 15–30 minutes prior to the typical night waking determined from sleep diary, parent preemptively awakens the child by shaking them lightly and asking them to awaken. Once the child responds by opening eyes slightly or mumbling, the parent allows the child to fall back asleep or provides a “typical” response to soothe the child back to sleep (i.e., rocking, feeding, patting). Procedure is implemented on a nightly basis for 2–4 weeks.
Parent education	All children	Education regarding sleep hygiene measures, good sleep promoting habits, reduced caffeine, consistent and developmentally appropriate sleep-wake times.
Cognitive behavioral therapy	Children approximately age 8 or above	Methods include progressive muscle relaxation, deep-breathing exercises, imagery, cognitive techniques to decrease negative thoughts at bedtime, or keeping a worry journal, all of which can be used independently or as a package together to reduce level of arousal and anxiety at bedtime, increasing likelihood of ability to initiate sleep.



# EBTs: Behavioral Insomnia

- Extinction-based methods
  - Unmodified Extinction (Weissbluth)
  - Gradual Extinction (Ferber)
- Positive routines/Faded Bedtimes
  - Set bedtime delayed paired with positive bedtime routine interactions
- Scheduled Awakenings
  - Caregivers awaken child 15-30 minutes before a typical awakening followed by soothing. Faded out over time.
- Parent education/prevention alone



“Cry It Out”  
(CIO) Methods



# EBTs: Behavioral Insomnia

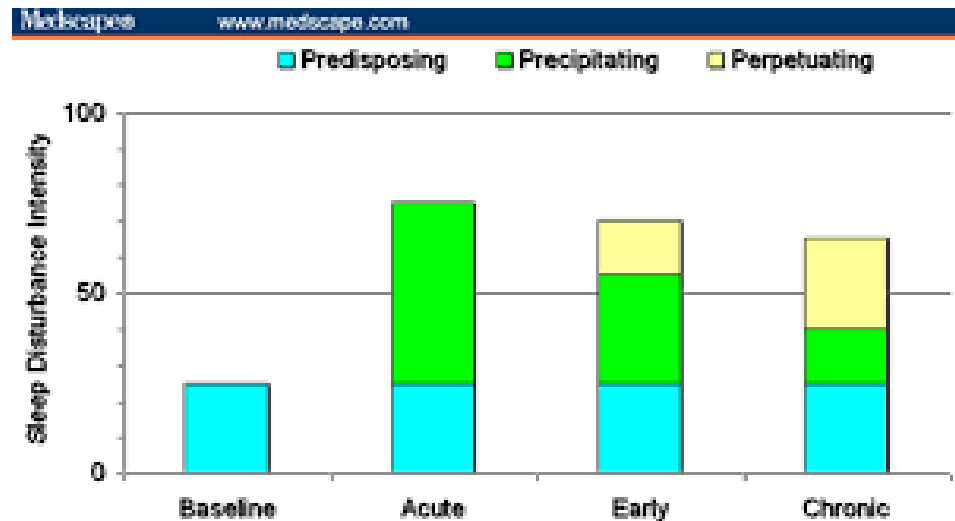
**Table 2**—Reasons for parents' difficulties with extinction interventions.

Enduring crying	Some parents find their child's crying too distressing to ignore. Those who interpret crying as a sign of distress are more likely to consider ignoring as neglectful or insensitive, and experience shame, guilt or anger when implementing extinction. These emotions are linked to lowered parent efficacy and self-perceived competence and in-turn poor child sleep, potentially creating a self-reinforcing loop.
Practical considerations	Extinction can be impractical when it disturbs partners' or siblings sleep, there are different or inconsistent carers, parents' resources are limited due to other children or work, or in certain housing arrangements.
Fear of repercussions	Some parents fear damaging attachment or negative consequences from intense or extended crying. Some literature supports these fears giving them legitimacy. There is limited definitive evidence supporting or refuting negative consequences to-date, making it unfeasible for practitioners to conclusively allay or confirm these fears.
Misinformation	Resistance to and dissatisfaction with extinction can be due to misinformation about appropriate use and expected consequences. Also, practitioners' must be aware their recommendations on good/bad sleep practices follow biases and assumptions inherent in the literature, thus recommendations may be perpetuating misinformation.
Incongruence with personal beliefs	Some parents hold beliefs which oppose extinction, and can feel blamed by practitioners if they do not distance themselves from their child as recommended, leading to attrition. Incongruent parenting beliefs and practices have been linked to negative consequences, e.g., marital conflict. Not all parents will hold strong beliefs about parenting practices though.
Different cultural practices	Little evidence exists regarding extinction use and culture, but other parenting practices are known to be embedded within culture. Most pediatric sleep interventions are based on stereotypical western cultures which promote solo sleep and self-settling as ideal, but this may be contrary to some families. A lack of culturally sensitive interventions may mean current efforts are not resonating with some families.
Parent wellness	Parents experiencing excessive fatigue, anxiety, depression or stress may struggle to resist their child's cries. However, these conditions are known risk factors for subsequent issues, so intervening quickly and effectively may be a priority.



# EBTs: Insomnia

- Cognitive Behavioral Therapy for Insomnia (CBT-I)
- Framework
- Four main components
  - Sleep Hygiene/Education
  - Sleep Restriction\*
  - Stimulus Control
  - Cognitive Therapy



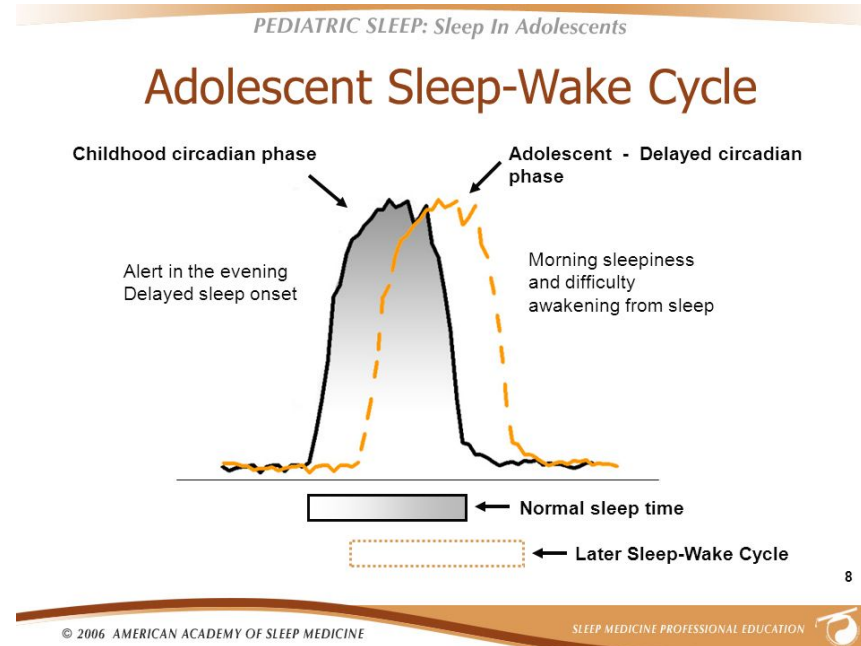


# EBTs: Insomnia

- Note on sleep in adolescence

- May benefit from a “clock setting” dose of melatonin (0.3-0.5mg)

- Important to educate parents!



# EBTs: OSA

**Table 3. Recommendations for the Diagnosis and Management of OSA in Children**

## Diagnosis

All children should be screened for snoring at well-child visits.<sup>13</sup>

Clinical and polysomnographic findings should be integrated to diagnose OSA; clinical indicators alone are not consistently reliable for predicting OSA.<sup>13,18</sup>

Adenotonsillectomy is a low-risk procedure, but should be performed only in those with proven OSA.<sup>13</sup>

Preoperative polysomnography is indicated before adenotonsillectomy in children with OSA.<sup>13,18</sup>

Identifying the severity of OSA helps determine the risk of postoperative respiratory complications.<sup>13,18</sup>

## Treatment

Adenotonsillectomy is the primary treatment for those with adenotonsillar hypertrophy; it is highly effective and leads to improved quality of life and behavior.<sup>13</sup>

## Follow-up

Patients with mild OSA should receive postoperative and periodic clinical assessments for residual symptoms; if symptoms are present, postoperative polysomnography is indicated.<sup>13,18</sup>

Patients with moderate to severe OSA and obesity should receive postoperative polysomnography to assess for residual symptoms, as well as periodic clinical assessments<sup>13,18</sup>



# EBTs: OSA

- OSA treatments work wonders but adherence is always a struggle
- Desensitization Protocols
  - Spend time with mask on engaging in tasks while awake
  - Spend time relaxing with mask on
  - Spend time in bed with mask on
  - Spend time sleeping with mask on (naps, overnight)



# EBTs: Nightmares and Parasomnias

- Tend to reduce/go away with age
- Not particularly concerning for child themselves
  - But can be very alarming for caregivers
- Make sure environment/surroundings are safe
  - Also consider daytime contributors (e.g., stress!) and previous sleeps
- Nightmare Rescripting
  - While awake, exposure to nightmare and then rescripting scary parts
  - “Riddikulus!”



# Sleep Hygiene

- “...set of behavioral and environmental recommendations intended to promote healthy sleep”
- Caffeine
- Nicotine
- Alcohol
- Exercise
- Meals/Liquids
- Stress
- Bedroom environment
- Naps
- Timing of sleep



# Resources

- National Sleep Foundation  
<https://www.sleepfoundation.org/>
- Assessments/Diaries
  - NSF Sleep Diary  
[https://www.sleepfoundation.org/sites/default/files/inlin  
e-files/SleepDiaryv6.pdf](https://www.sleepfoundation.org/sites/default/files/inlin<br/>e-files/SleepDiaryv6.pdf)
  - Insomnia Severity Index
  - Pittsburgh Sleep Quality Index
  - Epworth Sleepiness Scale



Questions? Cases?

Thank you!

[Pamela.Swift@uvmhealth.org](mailto:Pamela.Swift@uvmhealth.org)



# Cases/HIPAA

- Names
- Address
- DOB
- Phone/Fax #
- Email address
- Social Security #
- Medical Record #



The discussion and materials included in this conference are confidential and privileged pursuant to 26VSA Section 1441-1443. This material is intended for use in improving patient care. It is privileged and strictly confidential and is to be used only for the evaluation and improvement of patient care.





- RECORDING TO BE STOPPED FOR CASE PRESENTATION



# Conclusion

- Volunteers to present cases (this is key to the Project ECHO model)
  - Please submit cases to [Michael.Hoffnung@uvmhealth.org](mailto:Michael.Hoffnung@uvmhealth.org)
- Please complete evaluation survey after each session
- Claim your CME at [www.highmarksce.com/uvmmed](http://www.highmarksce.com/uvmmed)
- Please contact us with any questions, concerns, or suggestions
  - [Michael.Hoffnung@uvmhealth.org](mailto:Michael.Hoffnung@uvmhealth.org)
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