# August 20th 2024 Webinar: Early Childhood Sleep with Dr. Ariel Williamson

*Oregon Pediatric Improvement Partnership (OPIP) Learning Collaborative for Integrated Behavioral Health in Primary Care: Strategies and Tools to Provide Issue Focused Interventions Addressing **Social Emotional Health in Young Children (Birth to Five)***

**While We Wait to Let Everyone In**

**PLEASE UPDATE YOUR NAME IN ZOOM TO INCLUDE:**

- **FIRST AND LAST NAME**
- **INITIALS of the PRIMARY CARE PRACTICE IN WHICH YOU WORK**

*NOTICE OF RECORDING*

- *We will be recording this overview webinar for those attendees who registered but could not attend*

*This 2024 Learning Collaborative is financially supported by **Health Share of Oregon.***

# Agenda

- Topic Specific Focus for Today: Early Childhood Sleep
- Case Consultation on Implementing These Strategies:

**Participant Ask Questions, Share Examples, and Obtain Feedback**

- Looking forward:
  - Adding Cases and Practice to Future Webinars, Optional Case Consultation will include an option to practice with cases identified by Dr. Riley
  - September 2024 In-Person Learning Session Agenda and Location Finalized: Sign Up Now – Registration ends September 16h

*This Learning Collaborative is financially supported by* ***Health Share of Oregon.***

# Introducing Dr. Ariel Williamson

- Dr. Ariel Williamson is Assistant Professor at the University of Oregon in the department of psychology and at the Ballmer Institute for Children's Behavioral Health in Portland, OR.
- She is a licensed psychologist, diplomate in behavioral sleep medicine, and sleep expert for the Pediatric Sleep Council, which provides free, evidence-based early childhood sleep information.
- Dr. Williamson applies socio-ecological theory, implementation science principles, and community-engaged methods to conduct research on addressing sleep problems and sleep health disparities in primary care and other community settings.

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# Addressing Early Childhood Sleep Problems

Ariel A. Williamson, PhD, DBSM

August 20, 2024

Assistant Professor, The Ballmer Institute for Children's Behavioral Health & Dept. of Psychology (Clinical)

University of Oregon

# Faculty Disclosure

- I have no relevant financial disclosures with ineligible companies
- I am a Sleep Expert for the Pediatric Sleep Council (unpaid)
- Funding: NHLBI (R01HL163798)

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# Learning objectives

- At the conclusion of this presentation, participants should be better able to:

1. Describe common sleep problems in early childhood (ages 0-5 years)

2. Identify assessment approaches to benefit case conceptualization and treatment planning

3. Apply evidence-based behavioral strategies to treat sleep problems in young children

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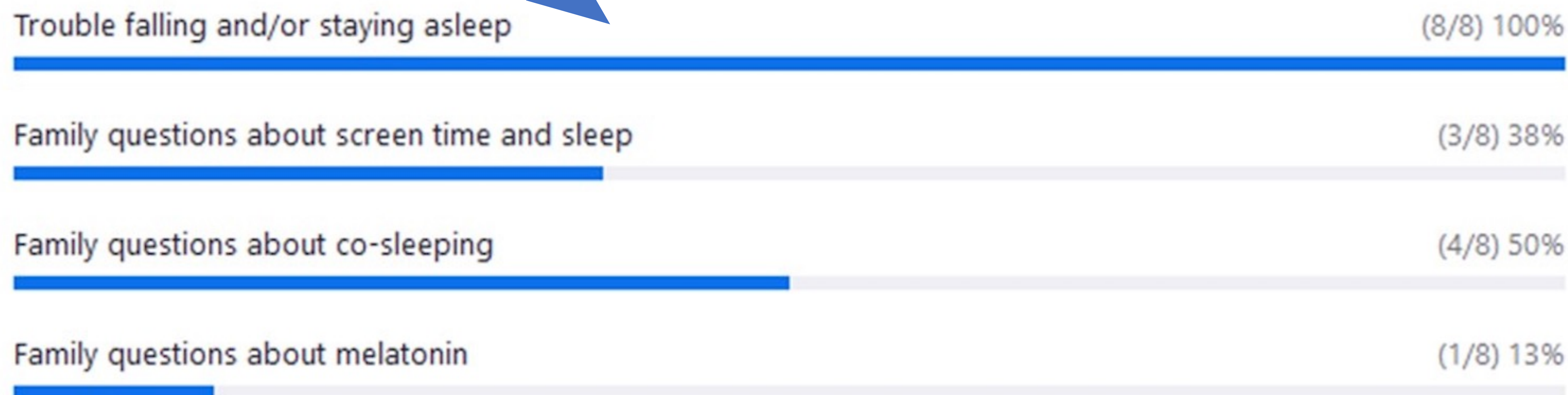
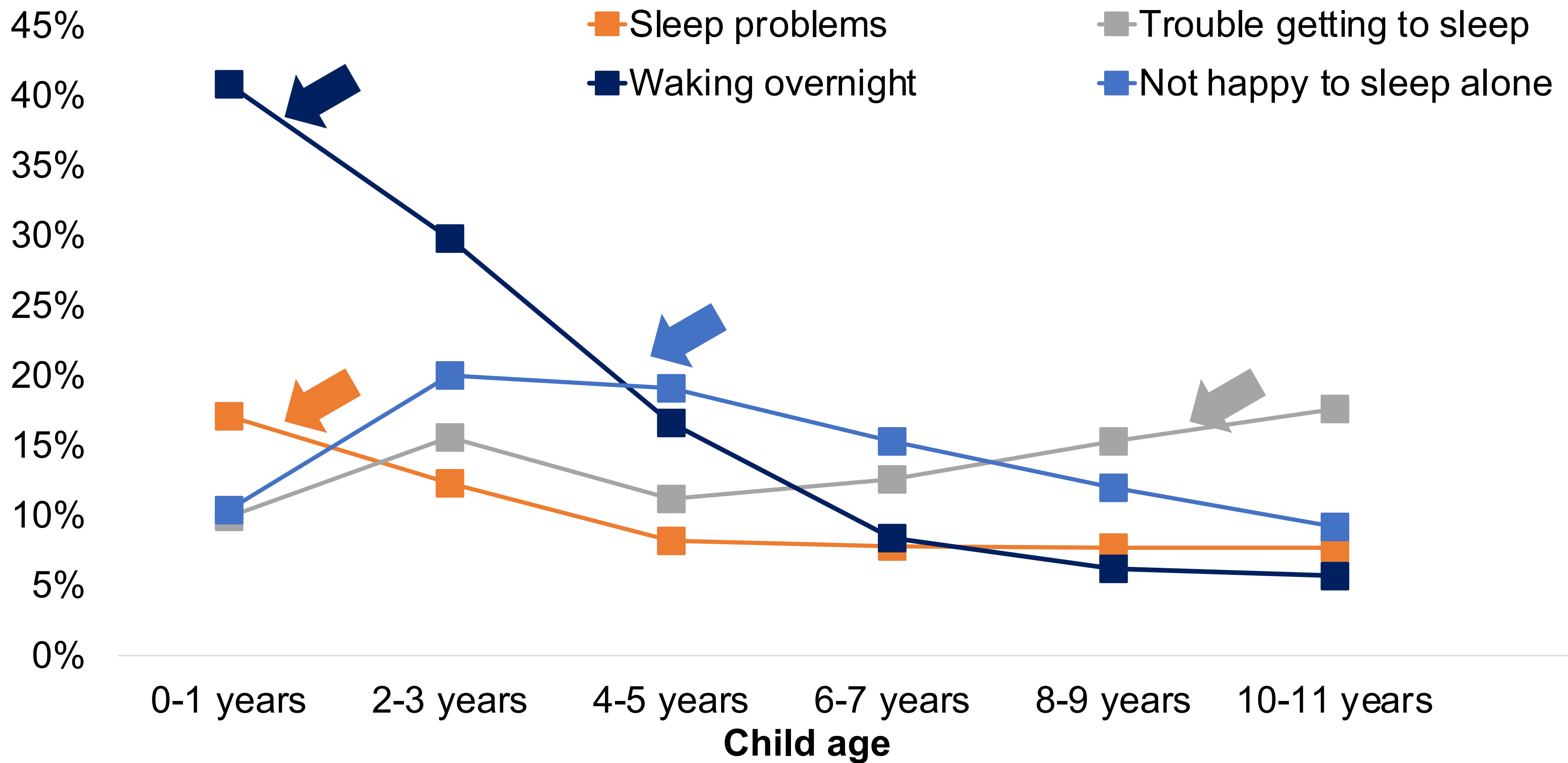
# Sleep problems by age

2. Which of the following is the top early childhood sleep (ages 0-5) issue you see/talk with families about?
(Multiple Choice)

8/8 (100%) answered



# Sleep problems by age

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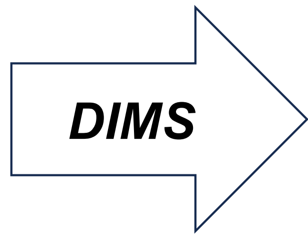
*Williamson et al., Sleep Med 2019*

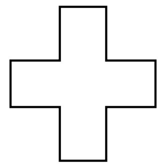
# Key diagnostic features: Insomnia disorder

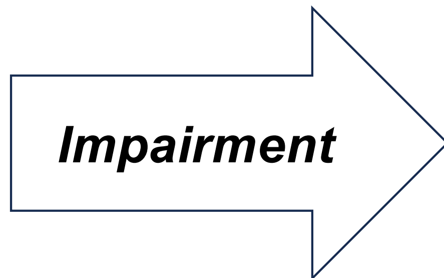



Difficulty
Initiating and
Maintaining
Sleep

- Bedtime resistance
- Nighttime cognitive and somatic hyperarousal
- Prolonged sleep onset latency (>30 minutes)

- Trouble sleeping alone or without intervention
- Frequent and prolonged night wakings
- Early morning awakenings






- Caregiver or child-reported
- Despite adequate sleep opportunity
- Chronic = 3 nights/week for 3+ months

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*ICSD-3-TR, 2023*

# Developmental considerations

***Early childhood*** ***School-aged*** ***Adolescence***

Sleep onset associations, frequent night wakings, and bedtime resistance **(20-30%)**

Trouble falling asleep and frequent night wakings **(15-20%)**

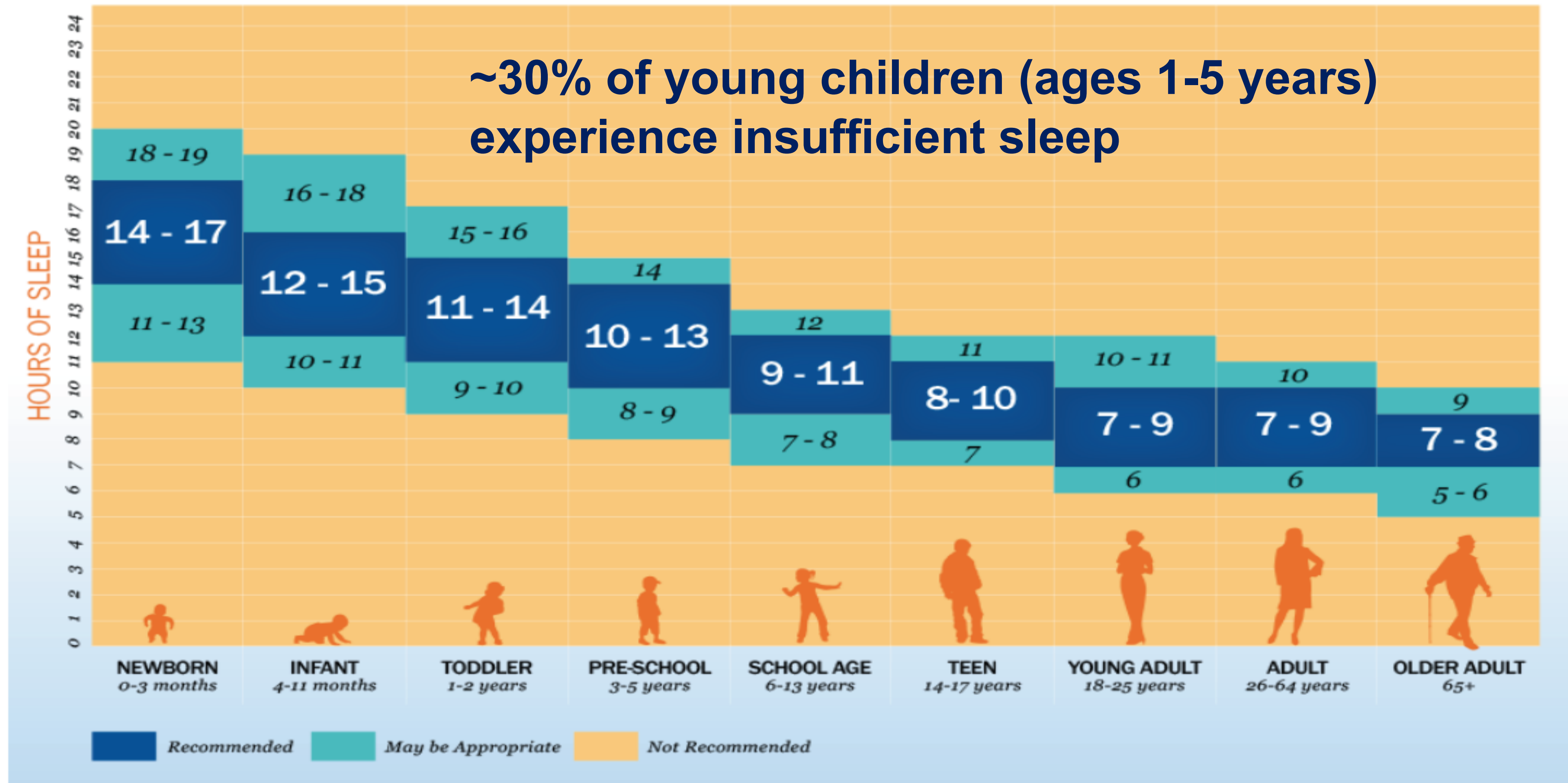
Trouble falling/staying asleep **(15-20%)**
Insufficient sleep **(50+%)**

Insomnia due to underlying mental, neurodevelopmental, and physical health conditions **(60-90%)**



*Calhoun et al., Sleep Med 2014; ICSD-3-TR, 2023*

# Recommended sleep duration by age (National Sleep Foundation)

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*Buxton et al., Sleep Health 2015; Taveras et al., Acad Pediatr 2017; Wheaton et al., MMWR Morb Mortal Wkly Rep 2018; Williamson & Mindell, SLEEP 2020*

# Assessment to guide treatment planning

*Early childhood* · *School-aged* · *Adolescence*

Sleep onset associations, frequent night wakings, and bedtime resistance

- Bedtime routine
- Patterns of reinforcement— "positive" & "negative"
- Environment and child alertness at sleep onset
- Family beliefs, values, and consistency

**Differential diagnosis**

- Normal development and appropriate expectations
- Medical issues (e.g., reflux, sleep disordered breathing)
- Parasomnias
- Nightmares
- Emerging neurodevelopmental differences

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*Meltzer & Crabtree, 2015; Mindell et al., SLEEP 2006*

# (NREM) Parasomnias vs (REM) Nightmares

**Parasomnias**
- Confusional arousals: 17-40%
- Sleepwalking: 17-40%
- Sleep terrors: 1-7%

**Nightmares**
- Up to 75% of children have them
- 15% have recurrent nightmares

- Occur in the first half of the night
- Child does NOT remember the event in the morning, but may recall being awakened

- Occur in the second half of the night
- Child DOES remember the event in the morning, and seems fully awake

**Treatment:**
- Extend sleep duration
- Avoid interaction and promote safety
- Rule out sleep disordered breathing
- Time (highly heritable, usually go away)

**Treatment:**
- Assess for PTSD and treat if needed
- Imagery rehearsal therapy (processing dream through talking, artwork, visualization of alternate ending)



*ICSD-3-TR, 2023; Meltzer & Crabtree, 2015*

# (cognitive) Behavioral approaches are effective

Contents lists available at ScienceDirect

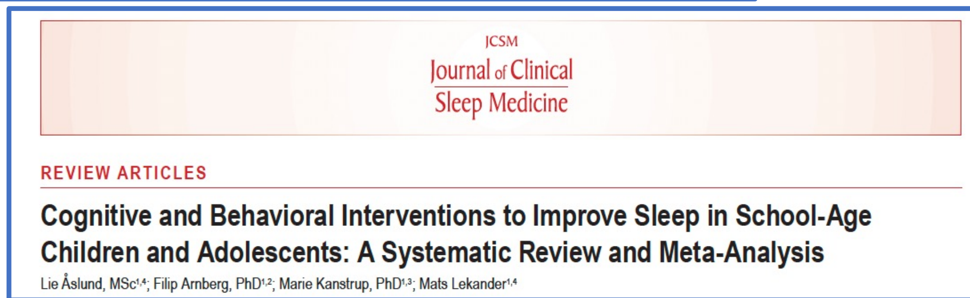
Sleep Medicine Reviews

journal homepage: www.elsevier.com/locate/smrv

CLINICAL REVIEW

ABCs of SLEEPING: A review of the evidence behind pediatric sleep practice recommendations

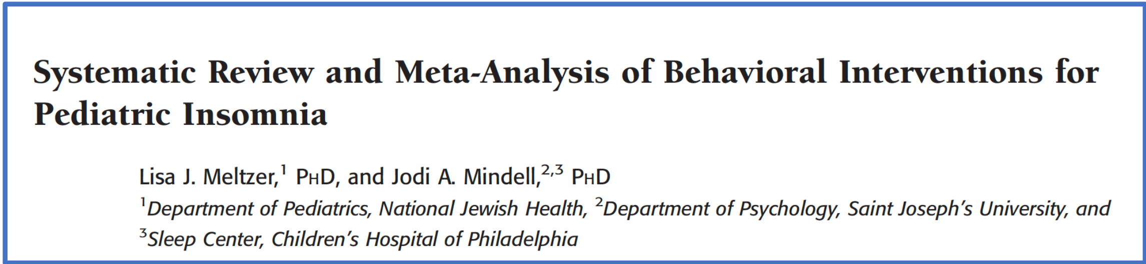
Stephanie L. Allen [a], Melissa D. Howlett [a], J. Aimée Coulombe [b], Penny V. Corkum [a, b, *]


JCSM Journal of Clinical Sleep Medicine

REVIEW ARTICLES

Cognitive and Behavioral Interventions to Improve Sleep in School-Age Children and Adolescents: A Systematic Review and Meta-Analysis

Lie Åslund, MSc[1,4]; Filip Arnberg, PhD[1,2]; Marie Kanstrup, PhD[1,3]; Mats Lekander[1,4]


Systematic Review and Meta-Analysis of Behavioral Interventions for Pediatric Insomnia

Lisa J. Meltzer,[1] PhD, and Jodi A. Mindell,[2,3] PhD

[1]Department of Pediatrics, National Jewish Health, [2]Department of Psychology, Saint Joseph's University, and [3]Sleep Center, Children's Hospital of Philadelphia

- Small to moderate effects on sleep onset latency, night wakings, and perceived child sleep problems
- Most evidence in early childhood samples!

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# (cognitive) Behavioral approaches are effective

Contents lists available at ScienceDirect

Sleep Medicine Reviews

journal homepage: www.elsevier.com/locate/smrv

CLINICAL REVIEW

Seeing the Whole Elephant: a scoping review of behavioral treatments for pediatric insomnia

Lisa J. Meltzer [a, *], Allison Wainer [b, 1], Erin Engstrom [b, 2], Lauren Pepa [b, 3], Jodi A. Mindell [c, d]

Contents lists available at ScienceDirect

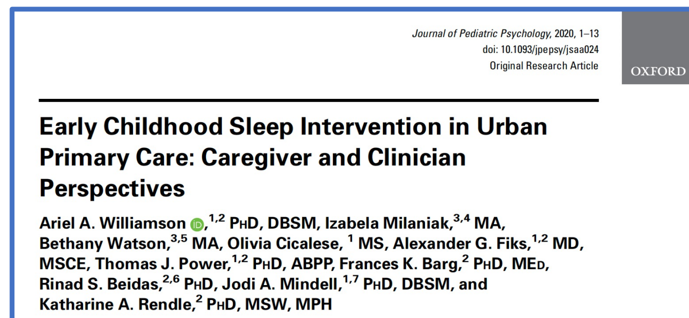
Sleep Medicine Reviews

journal homepage: www.elsevier.com/locate/smrv

CLINICAL REVIEW

Diversity in pediatric behavioral sleep intervention studies

Amy J. Schwichtenberg [a, *], Emily A. Abel [a], Elizabeth Keys [b], Sarah M. Honaker [c]


Journal of Pediatric Psychology, 2020, 1–13
doi: 10.1093/jpepsy/jsaa024
Original Research Article

Early Childhood Sleep Intervention in Urban Primary Care: Caregiver and Clinician Perspectives

Ariel A. Williamson,[1,2] PhD, DBSM, Izabela Milaniak,[3,4] MA, Bethany Watson,[3,5] MA, Olivia Cicalese,[1] MS, Alexander G. Fiks,[1,2] MD, MSCE, Thomas J. Power,[1,2] PhD, ABPP, Frances K. Barg,[2] PhD, MEd, Rinad S. Beidas,[2,6] PhD, Jodi A. Mindell,[1,7] PhD, DBSM, and Katharine A. Rendle,[2] PhD, MSW, MPH

- >80% of treatment studies use 1+ strategy
- Shared strategies across treatments
- Limited evidence with families of racial and ethnic minoritized and/or lower-SES backgrounds
- Adaptations may be needed

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# Sleep hygiene & education: Necessary, but usually not sufficient

### Bedtime/wind down routine:

- 2-4 activities
- Family- and child-centered
- Dose-response link to sleep

### Change the sleep schedule:

- Shorten or cut naps as appropriate
- Increase consistency on weekday and weekends
- Aim for recommended sleep duration by age

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*Allen et al., Sleep Med Rev 2016; Meltzer & Crabtree, 2015; Mindell, 2005; Mindell et al., Sleep 2015; Mindell & Williamson, Sleep Med Rev 2018*

# Sleep hygiene & education: Necessary, but usually not sufficient

**Cut caffeine:**

- Many families unaware of caffeine in green or diet tea, sodas, etc.
- Assess in young children, too!

**Limit electronics:**

- Assess whether child needs electronics to fall asleep
- Harm reduction: Gradually reduce electronics at night
- Turn off notifications and remove device after lights out
- Develop a plan for the whole family

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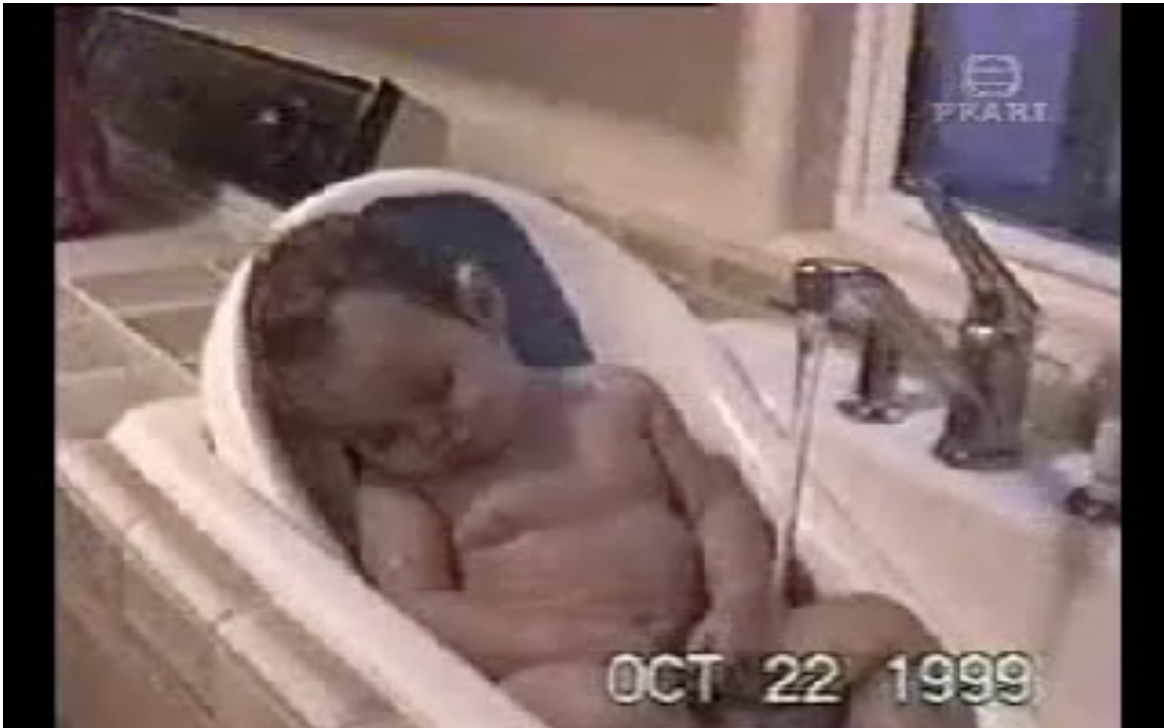
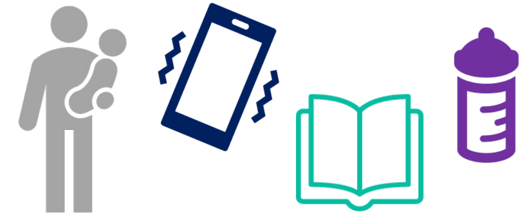
*Allen et al., Sleep Med Rev 2016; Meltzer & Crabtree, 2015; Mindell, 2005; Mindell et al., Sleep 2015; Mindell & Williamson, Sleep Med Rev 2018*

# Treating sleep onset associations and night wakings



**Isolate item or context needed to fall and return to sleep**

- May not be obvious!
- "Drowsy but awake" = tough time for learning
- Consider intermittent items or contextual factors



*Meltzer & Crabtree, 2015; Mindell, 2005*

# Treating sleep onset associations and night wakings

***"Whatever is needed to fall asleep is needed to get back to sleep after normal night wakings, which happen 2-6 times per night!"***

Focus on BEDTIME ONLY– have a routine and identify and stabilize the sleep onset association (parent, TV, etc.)

Consider bedtime fading!

Choose where and how to start (gradually) removing or reducing sleep onset association

Add positive reinforcement! Address fears!

Address night awakenings once child can consistently fall asleep on their own at bedtime

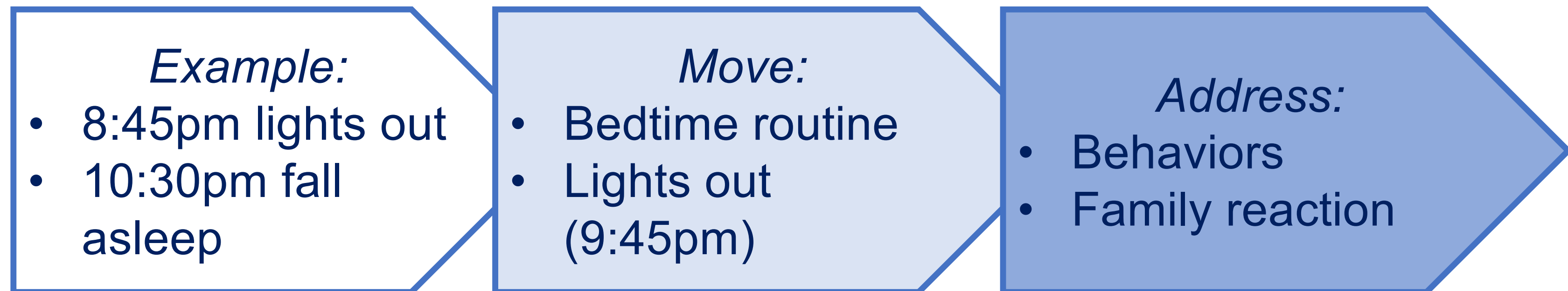
Manage expectations!

*Meltzer & Crabtree, 2015; Mindell, 2005*

# Bedtime fading to benefit sleep problems

- Temporarily moving the bedtime later to reduce time between lights out and fall asleep time

- Helpful to maintain when working on trouble falling asleep
- Continue with same wake time and nap time (or shorten nap if needed)

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*Meltzer & Crabtree, 2015; Mindell, 2005*

# Positive reinforcement

- ***Make bedtime special time*** (child-directed play activity)
- Labeled (specific) praise: ***"You're doing a great job getting pjs on!"***

- ***Develop a plan*** for "curtain calls" and tantrums
  - Include caregiver coping strategies and self-talk
- Use the same boring redirection: ***"I love you, it's bedtime, goodnight"***
  - Any attention is attention! Don't complain, don't explain.



*Meltzer & Crabtree, 2015; Mindell, 2005*

# More positive reinforcement & planned ignoring

**Bedtime Routine**

After completing each bedtime task mark it below

| | Brush your teeth | Use the potty | Wash your hands / Take a bath | Read a book | Lights out | Stay in bed until morning |
|---|---|---|---|---|---|---|
| Monday | | | | | | |
| Tuesday | | | | | | |
| Wednesday | | | | | | |
| Thursday | | | | | | |
| Friday | | | | | | |
| Saturday | | | | | | |
| Sunday | | | | | | |

- Try a visual ***bedtime chart***
- Can add a small prize in the morning for following the routine

- ***Sleep fairy (or superhero)*** checks whether child stays in bed after lights out
- Child gets small prize or encouraging note in morning
- Eventually apply to night wakings

- ***OK to wake clock or light timer***
- Turns on or off when child can get out of bed
- Set for 3-5 minutes after child typically wakes
- Gradually move later



*Meltzer & Crabtree, 2015; Mindell, 2005*

# Bedtime fears and anxiety in young children

- Try ***monster spray*** (note this means monsters are real…)
- Incorporate into bedtime routine

- A ***flashlight treasure hunt*** can help with fears of the dark
- Gradual exposure to dark room with caregiver support
- Pair with brave talk: ***"I am strong, I can be brave!"***

- Integrate a stuffy/superhero/***Huggy Puppy***
- Comfort object protects child OR child protects object
- Pair with brave talk

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Kushner & Sadeh, *Eur J Pediatr* 2018; Meltzer & Crabtree, 2015

# Managing expectations and addressing myths

| Myth | Response |
| --- | --- |
| *NOTHING has changed—they are still waking up all night long!* | Change takes time—wakings won't change until bedtime does |
| *You can ONLY do cry it out! You CANNOT share a room!* | Nope! Gradual approach and adaptations are possible |
| *Bedtime crying causes poor attachment, trauma, etc.* | Research says otherwise<br>Most crying is on nights 1-3<br>You can adapt to minimize crying |
| *Co-sleeping promotes attachment* | No strong studies on this |
| *Co-sleeping is bad* | Co-sleeping is unsafe for infants<br>Co-sleeping is problematic if not in line with family preferences |

Daytime naps might continue to happen

Bedtime/wind down activities may not be "quiet"

Electronics may be OK!

# Adaptations will ~~likely~~ be needed

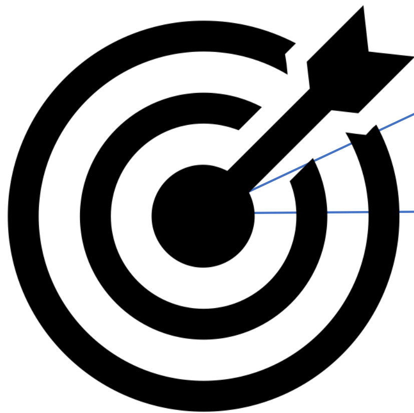
Graduated extinction may be very very (very) gradual

Sleep duration and/or later bedtime might not change

Now might not be the right time to make sleep changes

*Williamson et al., J Pediatr Psychol 2020;*
*Williamson et al., J Clin Sleep Med 2022*

# Goal setting and addressing family culture



**APA Cultural Formulation Interview Questions**

*"**Families and clinicians often come from different backgrounds,** such as race, ethnicity, culture, educational opportunities, and more**. This is important because it means we may have different beliefs about healthy sleep and goals for sleep.** I want to make sure we keep this in mind so that we can talk about what will work best for you and your family and meet your sleep goals**. Have you experienced any differences with clinicians that were difficult to manage? How can I address that moving forward?"***

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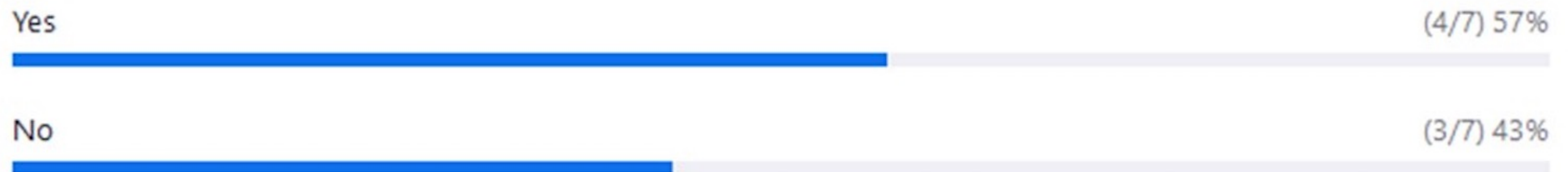
*American Psychiatric Association, DSM-5-TR, 2013; Chu & Leino, J Consult Clincal Psychol 2017; Williamson et al., J Pediatr Psychol 2020; Williamson et al., J Clin Sleep Med 2022*

# Identification and monitoring: What do you use?

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# Identification and monitoring: Options

***BEARS tool*** (Owens & Dalzell, 2005)

- ***B***edtime problems
- ***E***xcessive daytime sleepiness
- ***A***wakenings during the night
- ***R***egularity and duration of sleep
- ***S***leep disordered breathing

***Pediatric Insomnia Severity Index (PISI)*** (Byars et al., 2017)

## *PROMIS Early Childhood Sleep Problems scales*

**Please respond to each question or statement by marking one box per row.**

**In the past 7 days**

| | | Never | Almost Never | Sometimes | Almost Always | Always |
|---|---|---|---|---|---|---|
| sq005p_ec | My child had difficulty falling asleep ....... | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| sq022p_ec | My child woke up at night and had trouble falling back to sleep ........................................................................... | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| sq036p_ec | My child tossed and turned at night .......... | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| sq042p_ec | My child had trouble sleeping .................. | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| w030p_ec | When my child didn't sleep well, it was hard for him/her to play........................... | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| w015p_ec | When my child didn't sleep well, he/she was in a bad mood.................................. | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| w017p_ec | When my child didn't get enough sleep, he/she became frustrated easily................ | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| w040p_ec | My child's daytime activities or routines were disturbed by poor sleep.................... | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |

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# What about medications?

- **No FDA-approved insomnia medications in children**
- Off-label clonidine used for children with developmental differences in some cases

***What about melatonin?***

- **No evidence-base for typically developing children**
- Used in **25%** of 1-4-year-olds, **68%** of 5-9-year-olds, and **34%** of 10-13-year-olds
- Not FDA regulated, and often contains other substances
- Significant variation within and across brands (-84% to 434%)
- Only evidence is for children with developmental differences

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*AASM practice guidelines; Cohen et al., JAMA Peds 2-23; Erland & Saxena, J Clin Sleep Med 2017; Hartstein et al., JAMA Peds 2024; Malow et al., Pediatrics 2012; Maras et al., J Child Adoles Pharmacol 2018*

# Summary and Clinical Highlights

Cognitive-behavioral approaches are the first-line treatment for behavioral sleep problems in young children

Effective sleep treatment depends on family-centered care and shared decision-making

More research on behavioral sleep treatments across different populations and contexts is needed

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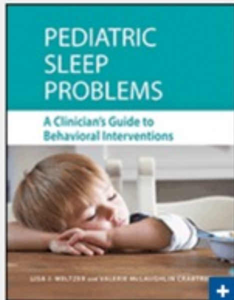
# Selected Resources

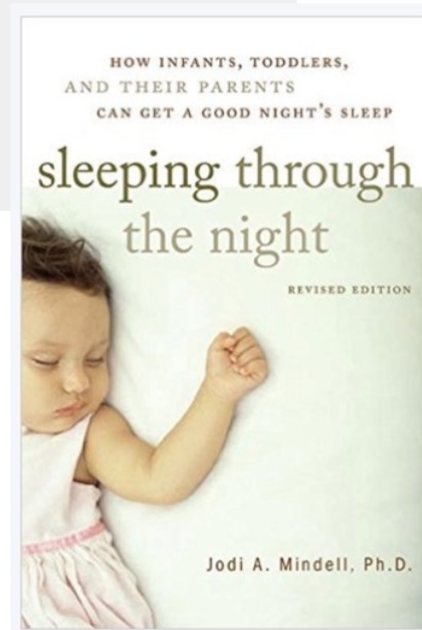
## Pediatric Sleep Problems:

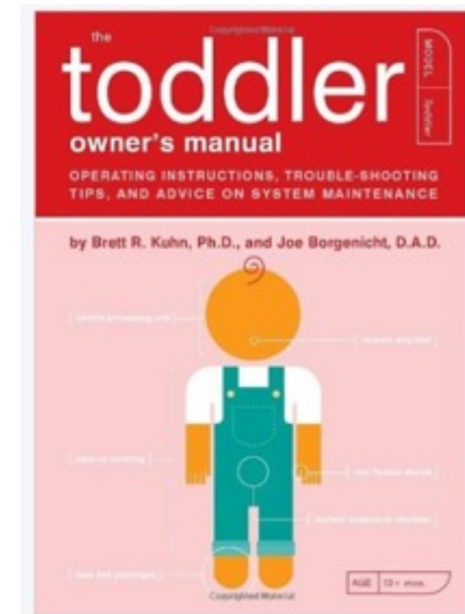
### A Clinician's Guide to Behavioral Interventions




By Lisa J. Meltzer, PhD, CBSM, and Valerie McLaughlin Crabtree, PhD, CBSM

**Pages:** 282
**Item #:** 4317372
**ISBN:** 978-1-4338-1983-4
**Copyright:** 2015
**Format:** Hardcover
**Availability:** In Stock
**Also available on:** Amazon Kindle

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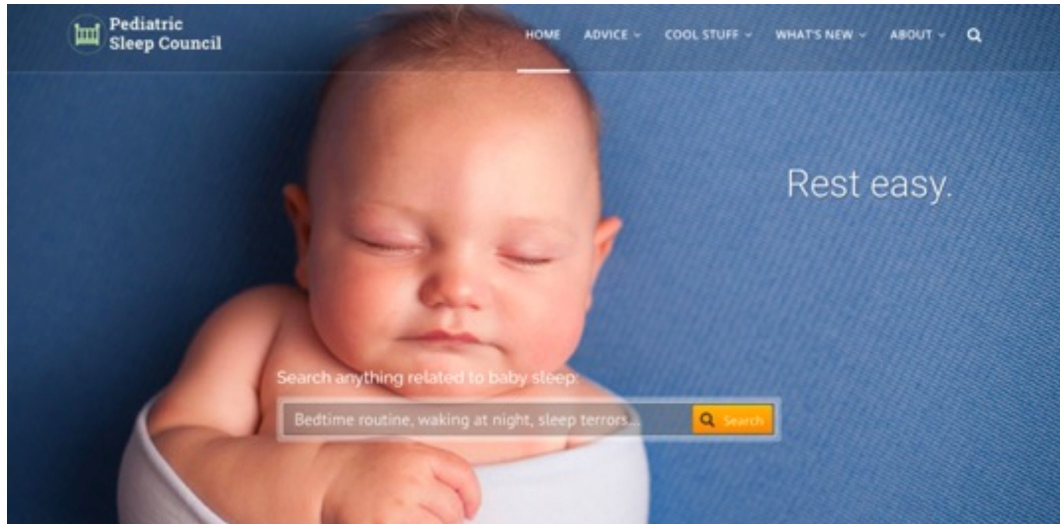
# Selected Resources




**Pediatric Sleep Council**

www.babysleep.com

Content in 17 languages!

Baby Sleep Day is March 1st

Bedtime App/Customized Sleep Profile (Johnson & Johnson)

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# THANK YOU!

Contact: arielaw@uoregon.edu

# Looking Forward:

OPIP

- Building in Practice to Future Webinars
  - Moving forward we will be building in more time at the end of these monthly webinars to play through example casts.
- Optional Case Consultation Calls (First Tuesday of Month)
  - Will prioritize questions and cases from attendees.
  - But will also have prepared practice cases exemplifying topics covered in this month's webinar
  - Remember: You Do not Need to Register
  - Next one is **September 3rd 12-12:30**

# Introducing Next Month's Speaker: Dr. Rachel Herbst

- September 17th 12-1:00: Topic Focus: **Culturally-Informed Motivational Interviewing with Dr. Rachel Herbst**
  - You **DO** Need to register
  - Bring Cases You Want Consultation on Specific Topic OR Share Strategies You Use

Rachel Herbst, PhD, is an Associate Professor at the University of Cincinnati College of Medicine and pediatric psychologist in the Division of Behavioral Medicine and Clinical Psychology at Cincinnati Children's Hospital Medical Center.
She serves as the Director of Integrated Behavioral Health in Pediatric Primary Care and as a Co-Director of the Behavioral and Mental Health Rotation for pediatric medical residents. Her clinical and research interests include prevention, practice transformation, and enhancing trauma-informed, culturally-responsive systems of care.

*This 2024 Learning Collaborative is financially supported by **Health Share of Oregon.***

# October In-Person Learning Session

- Agenda Finalized and Linked
  - https://oregon-pip.org/wp-content/uploads/2024/08/10-15-IBH-In-Person-LS-Participant-Agenda.pdf
- Location: : Portland State University, Native American Student and Community Center, 710 SW Jackson St, Portland, OR 97201
  - Parking Coupons will be Provided to Registrants
- Register Here: Registration closes September 16th
  - https://www.eventbrite.com/e/integrated-behavioral-health-in-primary-care-in-person-training-tickets-866680172727?aff=oddtdtcreator

# October In-Person Learning Session: Agenda

OPIP

***Key Parts of the Agenda Based on Your Input:***

- Where We Are Now and Why There Is a Need to Increase Provision of Services, Role of Integrated Behavioral Health in the 2025 Child-Level Social-Emotional Health CCO Incentive Metric (Starting January 2025)
- Advanced Clinical Skills Training:
  - Common Social-Emotional Health Issues Addressed in 2024 Webinars: Overview of Key Topics and Core Concepts
  - Advanced Skills for Specific Populations
    - Managing Common Concerns for Children with Autism and other Developmental Disabilities
    - Addressing Parental Mental Health in the Context of Behavioral Services for Young Children
- Supporting Implementation in Your Practice and Referral Pathways
  - Engaging Your Primary Care Providers to Refer Young Children
  - Engaging Families in Internal and External Services
  - Supporting Meaningful Improvement Aligned with the 2025 Incentive Metric

# Looking Forward

| Month | Topic-Focused Webinars & Person-Specific Registration Links (Third Tuesday of the Month) | OPTIONAL Office Hours & Zoom Links (First Tuesday of the Month) |
|---|---|---|
| September | 9/17/24: 12-1pm \| Culturally-Informed Motivational Interviewing with Dr. Rachel Herbst \| Registration Link: https://us06web.zoom.us/meeting/register/tZYtcu6grD4jEtdlocRXNNzoAnJVImOGoNLp | 9/3/24: 12-12:30pm \| Zoom Link: https://us06web.zoom.us/j/89365465702 |
| October | 10/15/24: In-Person Learning Session 8:00am-12:00, Optional Lunch from 12-1 \| Registration Link: https://www.eventbrite.com/e/integrated-behavioral-health-learning-collaborative-fall-learning-session-tickets-866680172727?aff=oddtdtcreator | |
| November | 11/19/24: 12-1pm \| Toilet Training and Elimination Problems \| Registration Link: https://us06web.zoom.us/meeting/register/tZEuduiqpjosGNCw1rOcTgbUvM5bm4mv7Th4 | 11/5/24: 12-12:30pm \| Zoom Link: https://us06web.zoom.us/j/89365465702 |
| December | 12/17/24: 12-1pm \| Incorporating Trauma-Informed Principles into IBH with Dr. Kim Burkhart \| Registration Link: https://us06web.zoom.us/meeting/register/tZcuceGoqjwpH9Iiz8bWB91uBhtxGIIA1l0A | 12/3/24: 12-12:30pm \| Zoom Link: https://us06web.zoom.us/j/89365465702 |

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