

Promoting Healthy Sleep Among Low-income Children Presenting to Urban Primary Care

Statement of Problem

Insomnia (difficulty falling/staying asleep) and insufficient sleep during early childhood have been shown to negatively impact child development. For example, sleep problems can lead to inattention and poor social-emotional skills, which can make it harder for children to be ready for school. With insomnia and poor sleep impacting 20-30 percent of young children, the National Academy of Medicine has referred to poor sleep as a critical public health concern for the last decade.

Although there is a robust evidence base for the benefits of sleep intervention in early childhood, few studies have examined the efficacy of such treatments among low-income groups. Research shows that children exposed to socio-demographic risk factors are [more likely](#) to show sleep difficulties and often face substantial barriers to accessing and engaging in care. Pediatric primary care is an ideal setting to deliver interventions given how accessible it is to families and the expansion of behavioral health services into primary care. Intervention in primary care may be especially feasible during early childhood, when there are many well-child visits. Unfortunately, there is little research on sleep intervention programs in this context.

Description

This project seeks to address the salient gaps in knowledge related to the lack of tested, evidence-based behavioral sleep treatments delivered to low-income families in pediatric primary care. This research will adapt and re-package evidence-based behavioral sleep education and intervention strategies, with a focus on developing scalable interventions that we can disseminate to primary care and other community contexts.

First, we will conduct interviews with patients (caregivers of preschoolers with sleep problems) and primary care providers to identify attitudes, beliefs and behaviors that are critical for adapting and implementing a sleep intervention for low-socioeconomic preschoolers in primary care. Based on what we learn, we will adapt and implement behavioral sleep intervention strategies and obtain feedback from an advisory board consisting of Children's Hospital of Philadelphia family partners, primary care providers and sleep intervention experts. Our final step will be to measure the efficacy of the adapted intervention in a pilot randomized trial with families referred to either the adapted sleep intervention in primary care or a waitlist control group.

Next Steps

Investing in sleep health is crucial for child development and a critical movement toward equitable health. As nearly one-third of low-socioeconomic children do not get adequate sleep, there is an urgent need for accessible solutions to help families. This project will also support research on the adaption, implementation and evaluation of brief behavioral interventions in primary care so we can better understand how to use the

primary care setting to support improved sleep health.

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PolicyLab Leads

Ariel A. Williamson PhD, DBSM

Faculty Scholar

Ariel Williamson is a PolicyLab faculty scholar and assistant professor of psychiatry and pediatrics at the Perelman School of Medicine of the University of Pennsylvania. Dr. Williamson is also an appointed faculty member at Clinical Futures, the Sleep Center in the Division of Pulmonary and Sleep Medicine, and in the Department of Child and Adolescent Psychiatry and Behavioral Sciences at Children's Hospital of Philadelphia (CHOP). She is a licensed psychologist and diplomat in behavioral sleep medicine and currently provides clinical services to youth with medical and behavioral sleep problems seen in the CHOP Sleep Center. Dr. Williamson serves as a sleep expert on the [Pediatric Sleep Council](#), an international team with expertise in sleep and development in young children. She is additionally a member of the Board of Directors for the Philadelphia-area [Beds for Kids program](#), which provides beds, bedding and healthy sleep education to children living without an individual bed and in impoverished homes. Dr. Williamson was nominated and accepted to the Society for Pediatric Research in 2020. She is also currently an Associate Editor for *Sleep Health*, the official journal of the National Sleep Foundation.

Dr. Williamson's research leverages pediatric sleep as a modifiable factor that can promote positive development and prevent child physical and behavioral health problems. Specifically, her research focuses on understanding socio-ecological determinants of pediatric sleep health disparities and behavioral approaches to promote pediatric sleep health and treat sleep problems in primary care and in partnership with community organizations. She also collaborates with the Healthy Minds, Healthy Kids program at CHOP on research related to integrated primary care service delivery, treatment engagement and patient outcomes.

Dr. Williamson earned her doctorate in clinical psychology from the University of Delaware. She completed her predoctoral internship in integrated behavioral health at CHOP, and a T32 postdoctoral fellowship in behavioral sleep medicine at the CHOP Sleep Center and the Center for Sleep and Circadian Neurobiology at the University of Pennsylvania Perelman School of Medicine. She is a two-time NIH loan repayment award recipient and was awarded a Sleep Research Society Foundation Career Development Award in 2018. Dr. Williamson's research is currently funded by the National Institute of Child Health and Human

Development, the National Heart, Lung and Blood Institute, and by an American Academy of Sleep Medicine Foundation Community Sleep Health Award.



Ariel A. Williamson

PhD, DBSM

Email: WILLIAMSOA@chop.edu

Team

Alexander Fiks MD, MSCE

Faculty Member

Alex Fiks is a faculty member at PolicyLab at Children's Hospital of Philadelphia (CHOP), an urban primary care pediatrician at CHOP, director of Clinical Futures at CHOP and an associate professor of pediatrics at the Perelman School of Medicine at the University of Pennsylvania. He is also the director of the American Academy of Pediatrics (AAP) Pediatric Research in Office Settings (PROS), a national research network, medical director for the Pediatric Research Consortium (PeRC), CHOP's practice-based research network and co-director of the Possibilities Project, an initiative to innovate primary care delivery. Additionally, Dr. Fiks is a founding member of the hospital's Department of Biomedical and Health Informatics.

Board certified in clinical informatics, Dr. Fiks' research is aimed at improving outcomes for ambulatory pediatric patients through practice-based research with a focus on improving health and health care decision-making through health information technology. To achieve these goals, much of Dr. Fiks' research is focused on fostering shared decision making between clinicians and families, especially in the setting of behavioral health conditions. He is also especially interested in how electronic health record data may best be used to improve primary care, medication use and child health more broadly. As Director of AAP PROS, Dr. Fiks has been involved in building the Collaborative Electronic Reporting for Comparative Effectiveness Research (CER²), an electronic health record database designed to support pharmacoepidemiologic and other comparative effectiveness studies that currently includes >2 million U.S. children from across multiple health systems.

Dr. Fiks received his medical degree from Harvard University, and received a Master's of Science in Clinical Epidemiology (MSCE) degree from the University of Pennsylvania. He has received additional training in clinical informatics.



Alexander Fiks
MD, MSCE
Email: Fiks@chop.edu

Brizhay Davis

Clinical Research Assistant

Brizhay Davis (she/her) is a clinical research assistant at PolicyLab at Children's Hospital of Philadelphia (CHOP) and the Department of Child and Adolescent Psychiatry & Behavioral Sciences at CHOP. Ms. Davis supports Dr. Ariel Williamson's research, which focuses on sleep in pediatric populations as a modifiable factor to promote healthy development and prevent adverse physical and behavioral health outcomes. She is currently assisting on Dr. Williamson's Sleep in Preschoolers Study (SIPS), which examines the social and environmental determinants of sleep health disparities within early childhood.

Ms. Davis graduated from the University of Virginia in May 2024 with a Bachelor of Arts in Psychology. During her undergraduate career, she worked as a research assistant in the Adolescence Research Group on the Vida Project, which was a longitudinal study examining how family and peer relationships during adolescence influence psychosocial development and long-term health outcomes. In the future, she plans to pursue a PhD in Clinical Psychology.



Brizhay Davis
Email: Davisb12@chop.edu

Jodi A. Mindell, PhD

Thomas J. Power, PhD, ABPP

Rinad Beidas, PhD

Frances Barg, PhD

Katharine Rendle, PhD

Justine Shults, PhD

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Project Contact

Ariel Williamson

williamsoa@chop.edu

Related Tools & Publications

- [What Sleep Health Means for Kids in 200 Words
Blog Post](#)
Mar 15, 2021
- [Benefits of a Bedtime Routine in Young Children: Sleep, Development and Beyond
Article](#)
Aug 2018
- [Sleep Well!: A Pilot Study of an Education Campaign to Improve Sleep of Socioeconomically Disadvantaged Children.
Article](#)
Dec 2016
- [Behavioral Health: A Snapshot of a PolicyLab Research Portfolio
Tools and Memos](#)
Aug 2025
- [Sleep Problem Trajectories and Cumulative Socio-ecological Risks: Birth to School-age
Article](#)
Sep 2019
- [Cumulative Socio-demographic Risk Factors and Sleep Outcomes in Early Childhood
Article](#)
Sep 2019

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[Early Childhood Sleep Intervention in Urban Primary Care: Caregiver and Clinician Perspectives](#)
[Article](#)

May 2020

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[Identifying Modifiable Factors Linking Parenting and Sleep in Racial/Ethnic Minority Children](#)
[Article](#)

May 2020

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[Changes in Sleep Duration and Timing During the Middle-to-High School Transition](#)
[Article](#)

Jun 2020

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[Longitudinal Sleep Problem Trajectories are Associated with Multiple Impairments in Child Well-being](#)
[Article](#)

Jul 2020

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[Socioeconomic Disadvantage and Sleep in Early Childhood: Real-world Data from a Mobile Health](#)
[Application](#)

[Article](#)

Mar 2021