



# EFFECTS OF BEHAVIORAL INTERVENTIONS ON SLEEP AND HEALTH OUTCOMES IN PRESCHOOL CHILDREN WITH DEVELOPMENTAL DELAYS, DISABILITIES, OR DISORDERS: A SYSTEMATIC REVIEW

Christine W. St. Laurent<sup>1</sup>, Madeline Durant<sup>2</sup>, Eric Toole<sup>3</sup>, Melissa N. Horger<sup>4</sup>, Ashley C. Woodman<sup>4</sup>, Keagan Kiely<sup>5</sup>, Megan Fisher<sup>1</sup>, and Sarah Burkart<sup>5</sup>



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<sup>1</sup>Department of Kinesiology, University of Massachusetts Amherst, USA; <sup>2</sup>Neuroscience Program, Smith College, USA; <sup>3</sup>Science and Engineering Library, University of Massachusetts Amherst, USA; <sup>4</sup>Department of Psychological and Brain Sciences, University of Massachusetts Amherst, USA; <sup>5</sup>Department of Exercise Science, University of South Carolina, USA

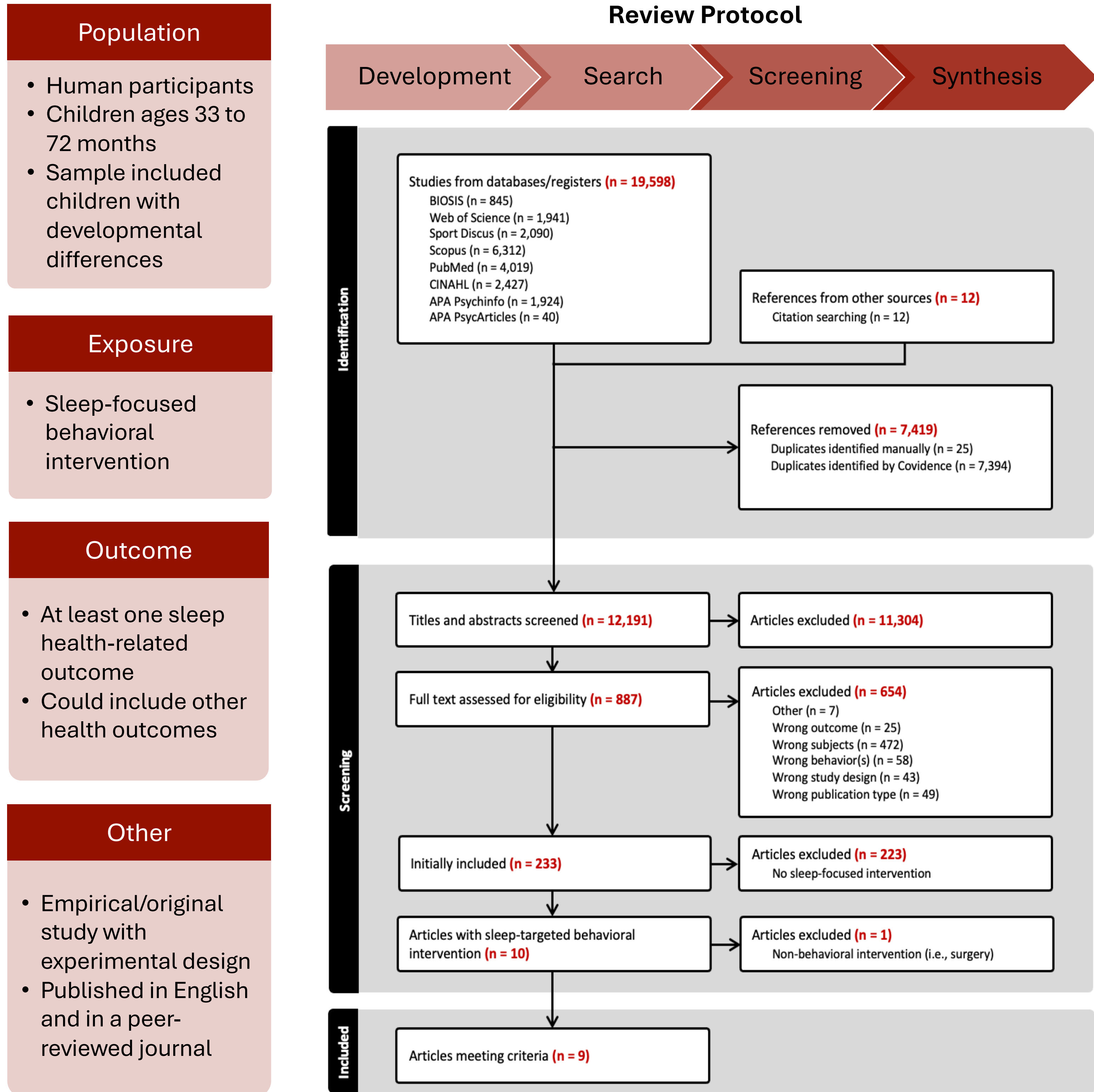
## INTRODUCTION

- Although systematic reviews of sleep interventions for school-age children provide modest improvements in sleep duration, less evidence has been synthesized in early childhood, where parent-led behavioral strategies have demonstrated meaningful benefits (1-5).
- Sleep disruptions are common in preschool children with developmental diagnoses, occurring more often than in typically developing peers (6-8).
- Importantly, most reviews focus on typically developing populations; children who have developmental differences are rarely represented.
- Findings from typically developing populations should not be assumed to generalize directly.

## PURPOSE

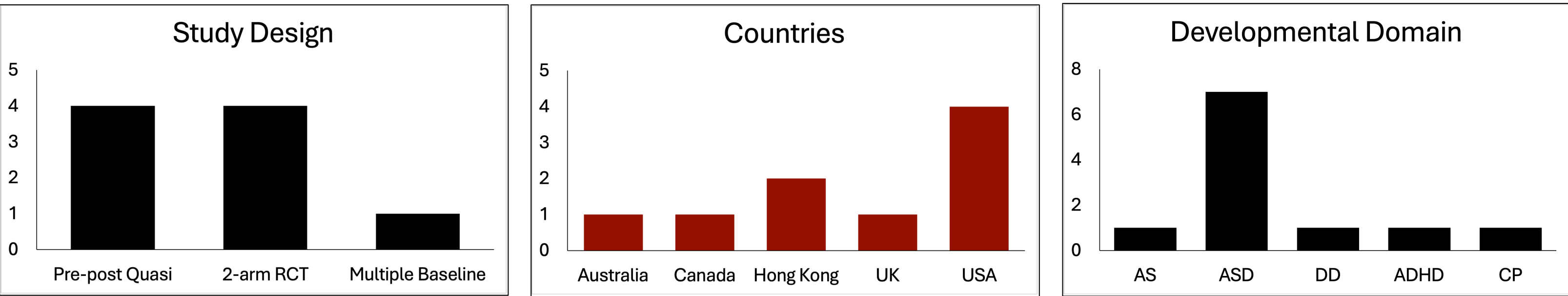
This systematic review aimed to determine the effects of behavioral interventions on sleep and health outcomes in preschool-aged children with developmental differences.

## METHODS



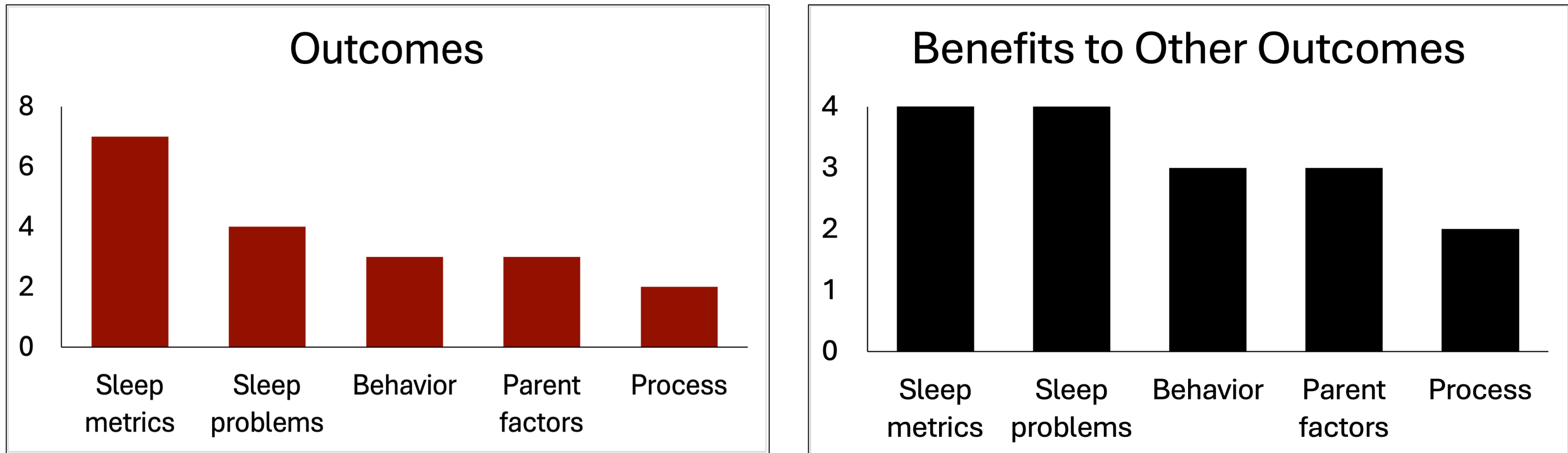
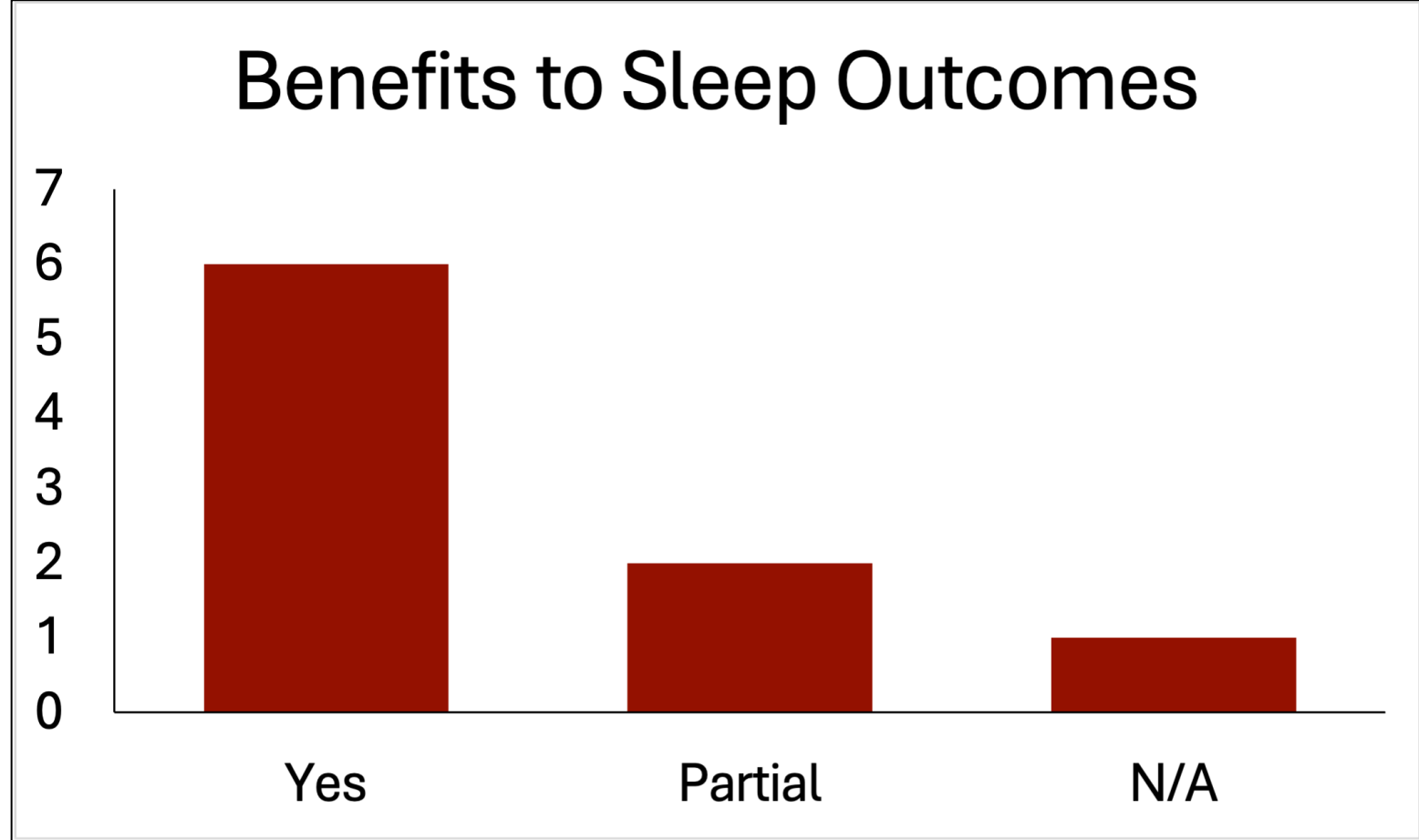
## RESULTS

- Nine reports (8 unique studies, sample sizes ranging from 5 to 77, published between 2013 and 2024) were identified that all examined parent interventions but varied in geographical location, design, and developmental domain of study.



**KEY:** ADHD = attention-deficit hyperactivity disorder; AS = Angelman syndrome; ASD = autism spectrum disorder; CP = cerebral palsy; DD = general developmental delay; RCT = randomized controlled trial

- Sleep outcomes included actigraphy metrics (e.g., duration and awakenings), sleep quality, and sleep disturbances (scores and types).
- Studies reported generally consistent benefits (as defined by authors) to most sleep measures, as well as broader outcomes.



## CONCLUSION

- Findings suggest behavioral interventions targeted to parents generally improve sleep behaviors and problems in preschool children with developmental differences, with some positive impacts on parent-related factors as well.
- However, there is limited research on direct child sleep measures, diverse populations, other intervention approaches and targets, and long-term effects.
- Future studies should address these gaps, explore broader diagnostic groups, and evaluate the sustained outcomes of interventions.

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## ACKNOWLEDGEMENTS

SEARCH STRATEGY: Sarah Vitelli and Rachel Caldwell from the University of Massachusetts Amherst Libraries; PRESS REVIEWER: Amy Riegelman, University of Minnesota; SCREENING REVIEWERS: Serena Cacciola, Marie Fandy, Sarah Freedman, Erin Johnson, Liz Rosas, and Gianna Salvati of the University of Massachusetts Amherst