

The Impact of Eczema on Sleep



present

LEADERS *in* ECZEMA

ONE-DAY FORUMS

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Conflict of Interest Disclosures

Grant/Research Support

- NIH
- NEA

Consultant

- Johnson and Johnson

Royalties

- Co-author, *Pediatric Sleep Problems: A Clinician's Guide to Behavioral Interventions*

What is Sleep?

- Sleep is a reversible behavioral state of perceptual disengagement from and relative insensitivity to the environment, usually characterized by typical behavioral concomitants
- *Sleep is not a passive state and is essential for health, daytime functioning, and well-being*

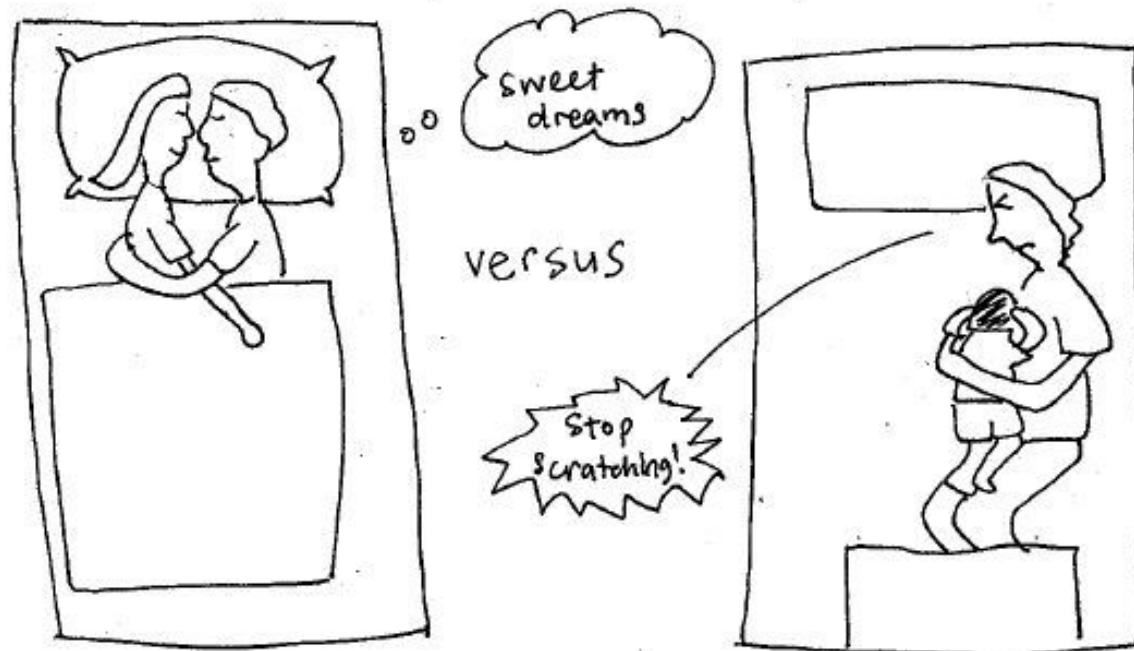
Sleep is NOT for slackers!



Who Needs Sleep?

- Everyone!
- By the age of 18 years, ~40% of time spent sleeping
- 25-40% of healthy children have sleep problem at some point in childhood
 - **Up to 83% of children with eczema have sleep issue**
- In most cases, when children don't sleep, parents don't sleep
 - **Parenting a child with eczema above and beyond typical parenting**

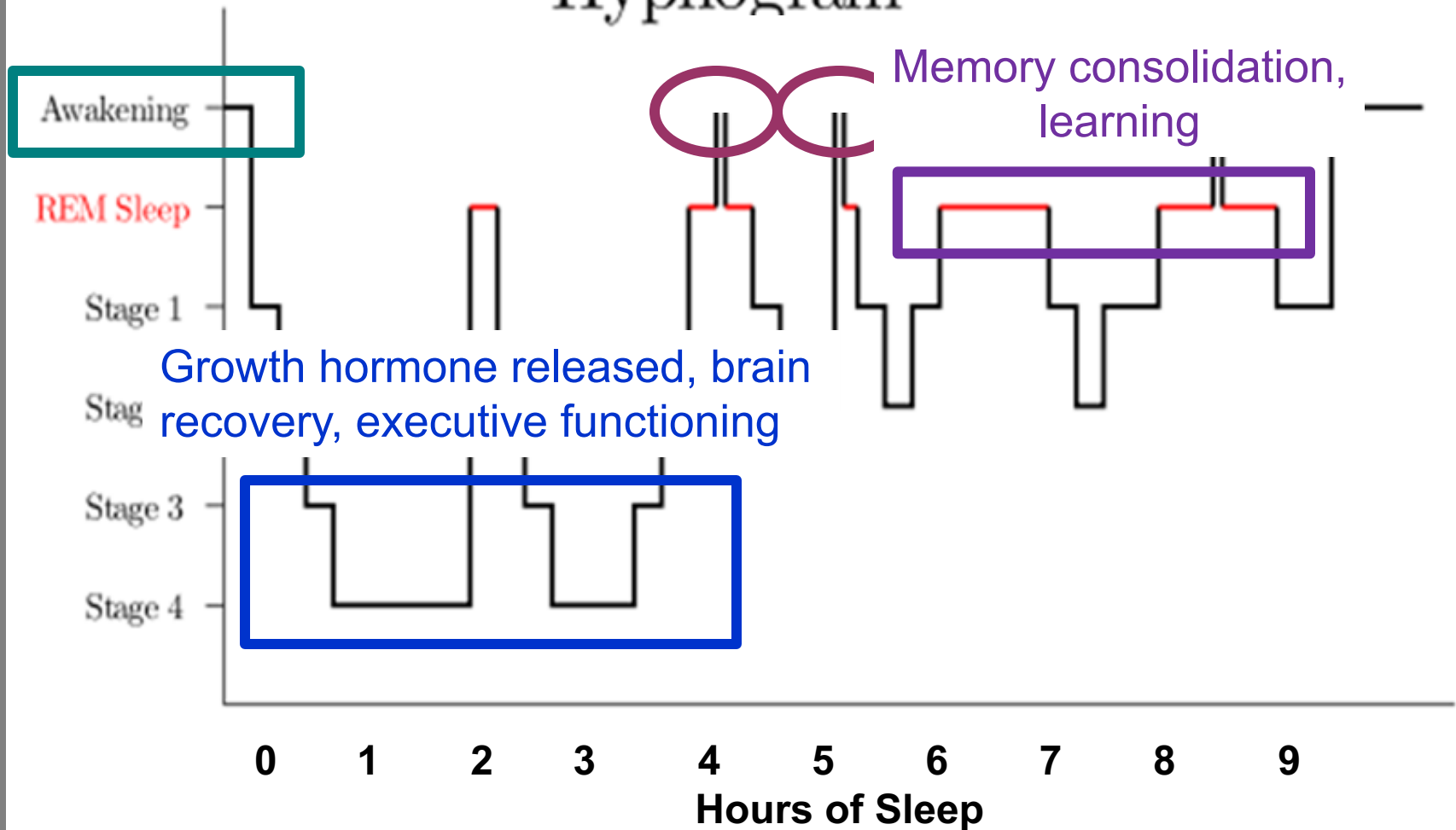
Sleep in Parents of Healthy Children vs. Sleep in Parents of Children w/Eczema



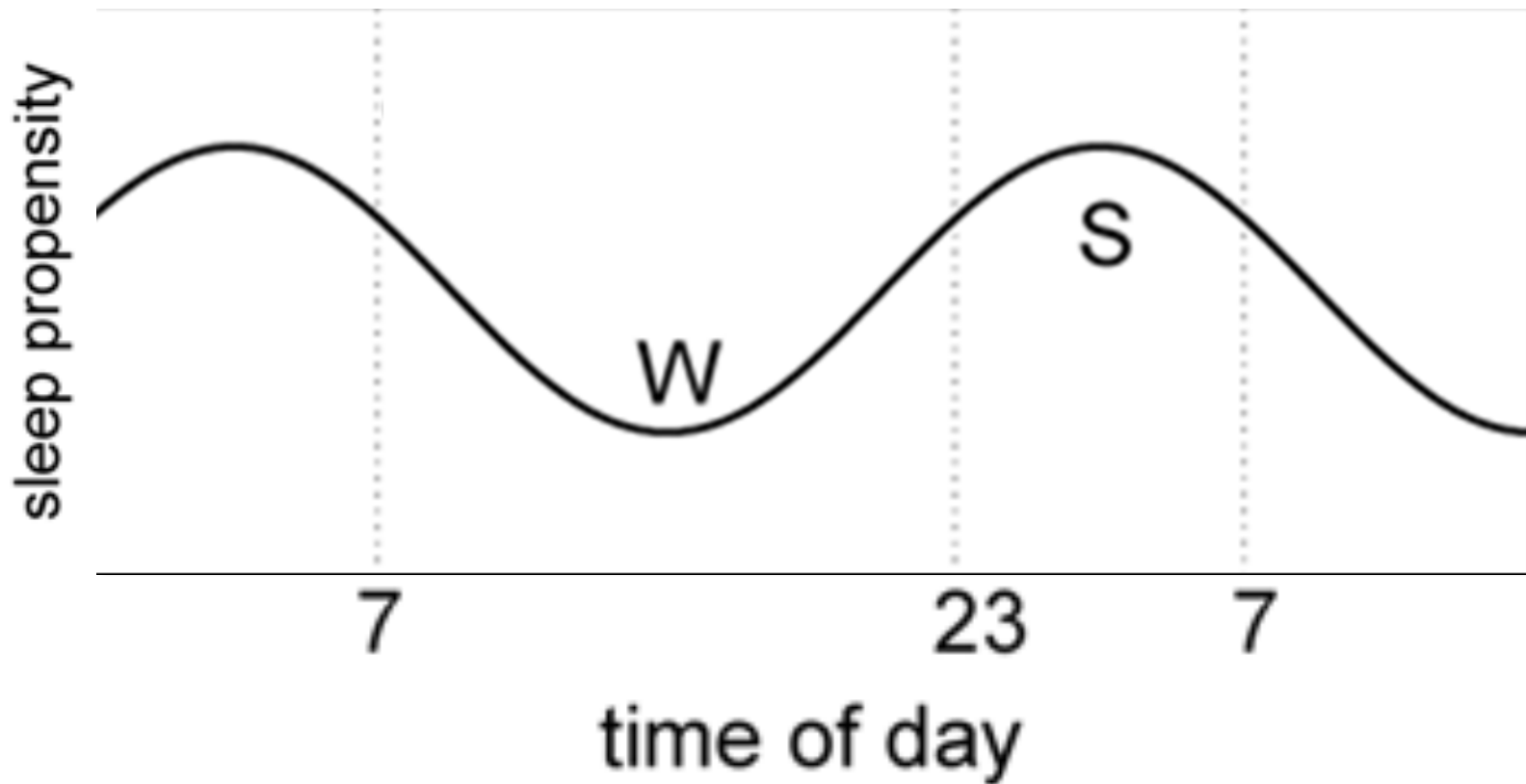
itchylittleworld.com

“Itching in Their Sleep Every Hour”

Hypnogram



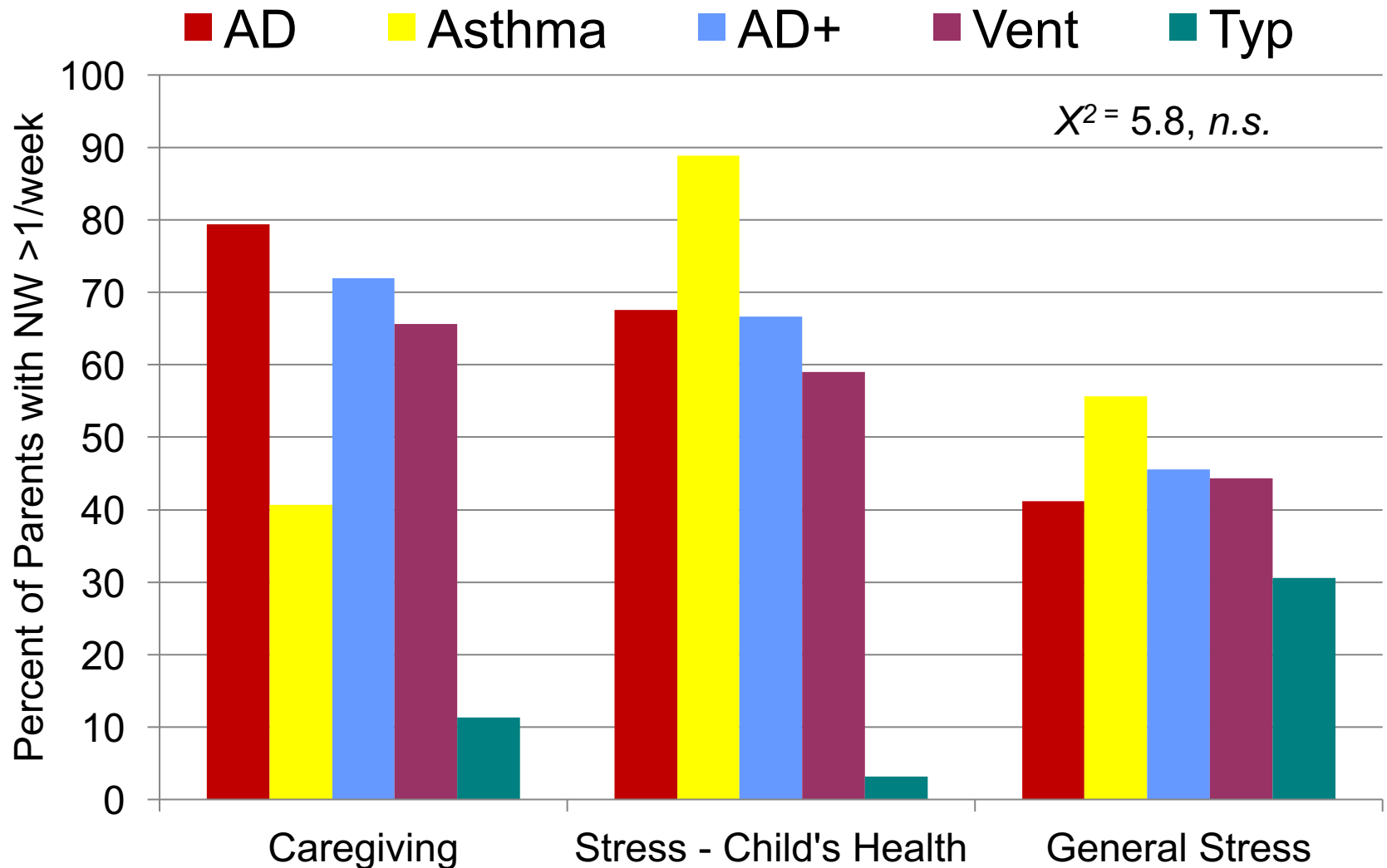
“Itching Worst at Bedtime”



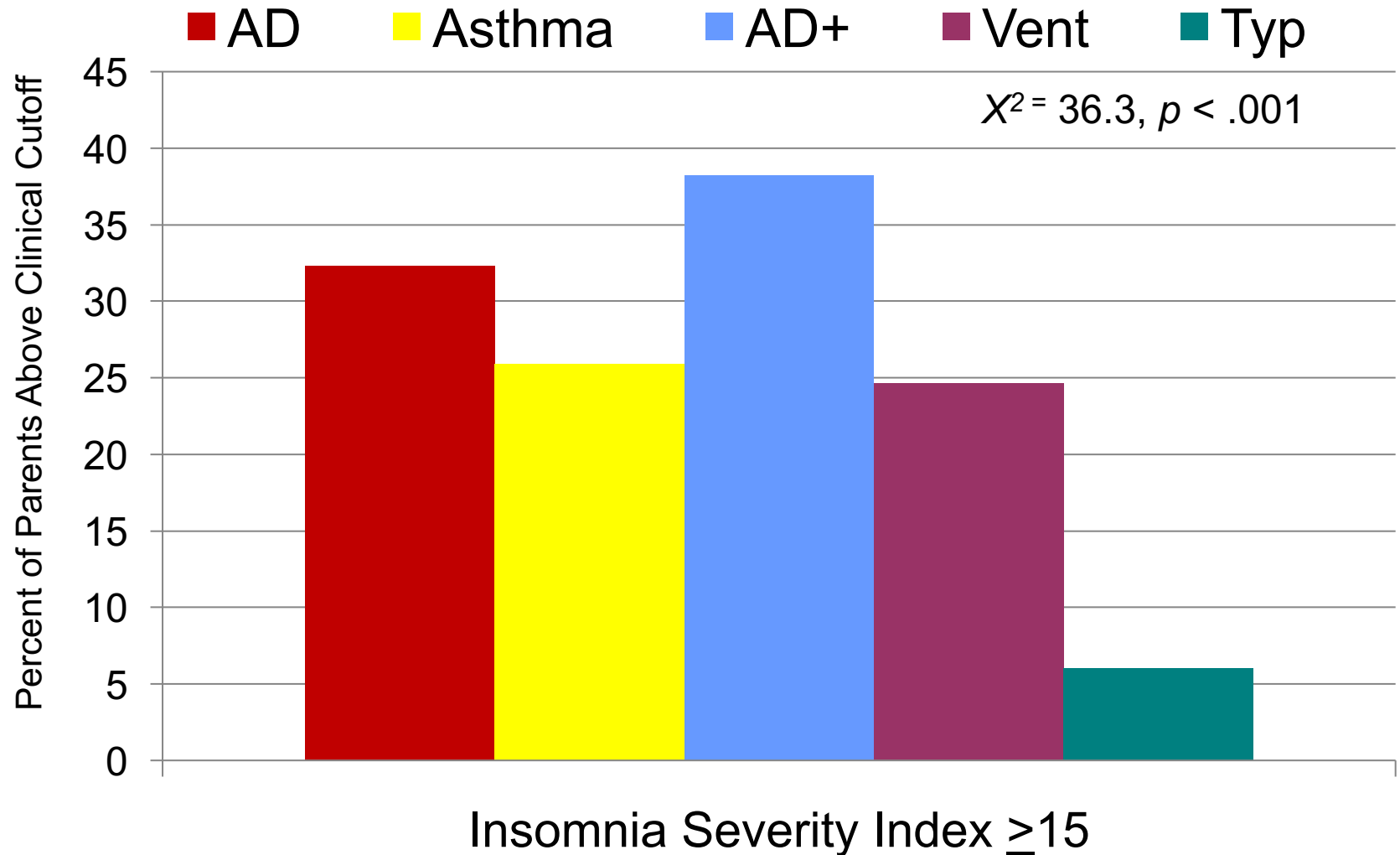
Parent and Child Sleep (AD)

- Sleep disruption most disruptive aspect of disease for families across studies
 - Previous studies used single item to assess parent sleep disturbance
 - Limited comparison with other populations
- 243 parents of children ages 1-19 years
 - 120 patients in NJH day hospital program
 - 61 ventilator assisted children (Vent)
 - 63 healthy, typically developing children (Typ)

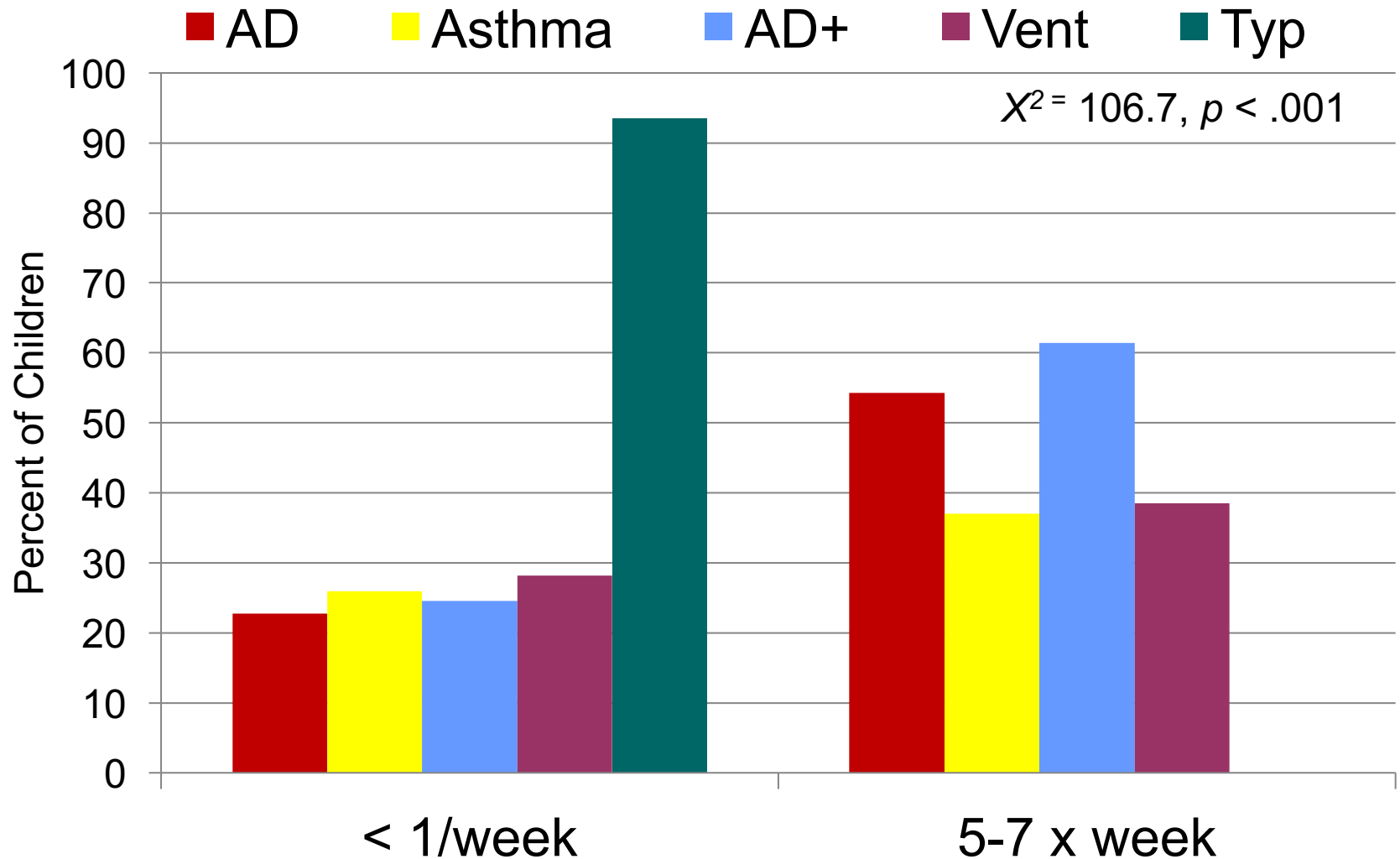
Reasons for Night Wakings



Moderate to Severe Insomnia



Child Night Wakings



Objective Data: Actigraphy

- Ambulatory device that measures movement with an accelerometer
 - *Movements are frequent and large while awake, but absent or small during sleep*
- Worn on wrist (or ankle) for multiple 24-hour periods in the natural environment
- Activity counts translated into epochs
- Algorithm used to determine if each epoch is “sleep” or “wake”

Objective Data

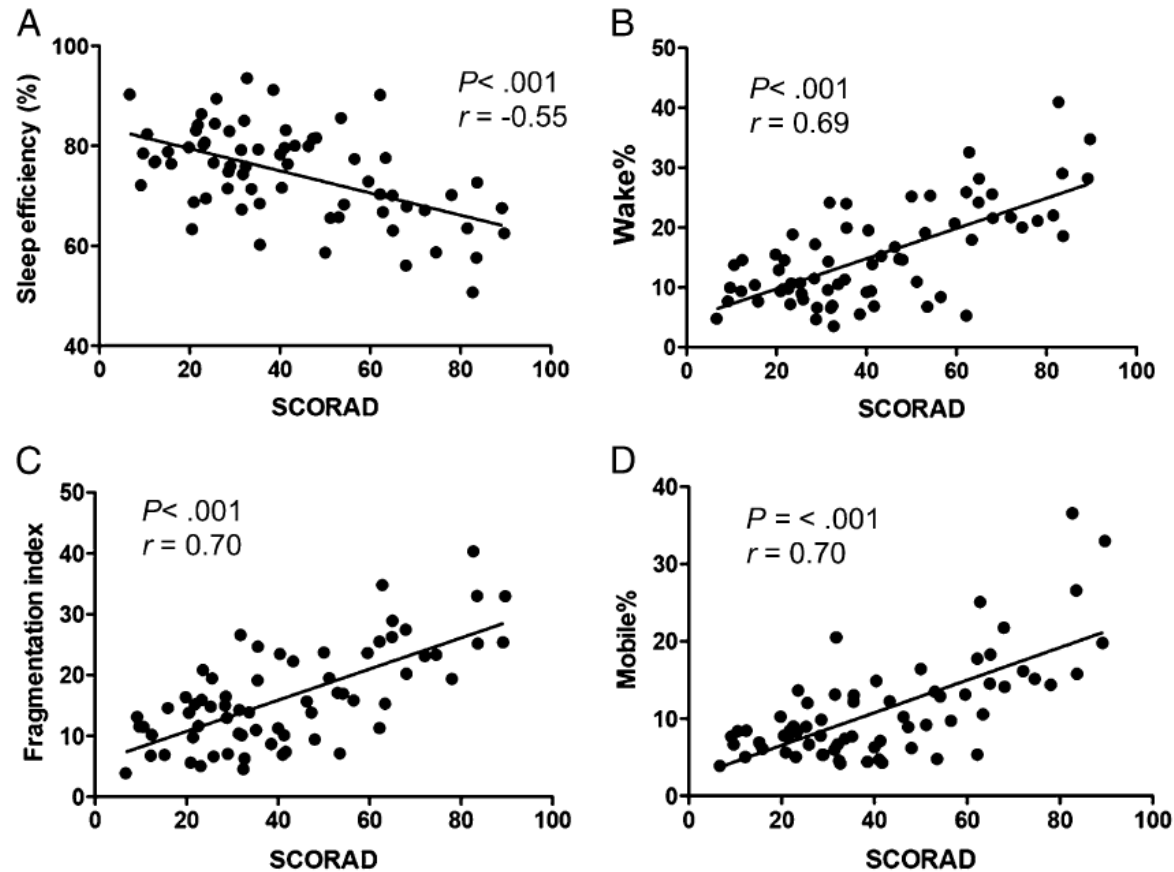


FIGURE 1

Correlation of AD disease severity with sleep parameters. A higher SCORAD index is significantly associated with lower sleep efficiency (A), larger percentage of time awake in the sleep period (B), more sleep fragmentation (C), and more movement in sleep (D).



HEIST: Healing Eczema and Improving Sleep Trial



- To examine impact of treatment for moderate to severe AD on sleep duration and sleep quality for children and their parents
- To examine whether sleep mediates the relationship between AD severity and functional outcomes in children and parents



HEIST: Healing Eczema and Improving Sleep Trial



- Up to 60 families who are treated at NJH
 - Children 6 months to 17 years and parents
- Actigraphy one week prior to admission
- Questionnaires at admission and discharge
 - Mood, QOL, child behavior, cognitive abilities
- Actigraphy/questionnaires one month after discharge
- Questionnaires three months after discharge



HEIST: Healing Eczema and Improving Sleep Trial



- 2 year old boy, pre-treatment



HEIST: Healing Eczema and Improving Sleep Trial



- 2 year old boy, one-month post-treatment





HEIST: Healing Eczema and Improving Sleep Trial



- Mother of 2 year old boy, pre-treatment

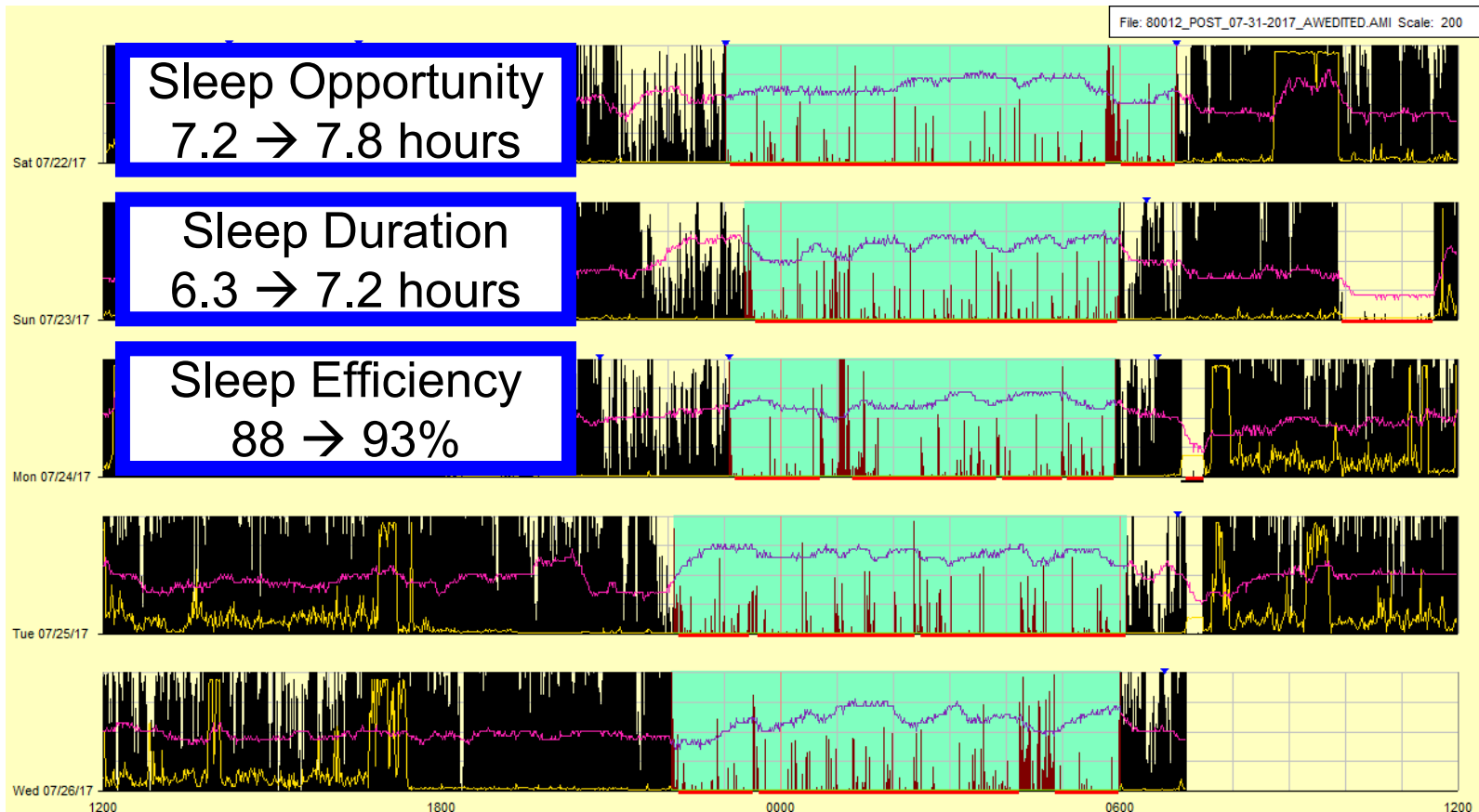




HEIST: Healing Eczema and Improving Sleep Trial



- Mother of 2 year old boy, post-treatment



Summary

- Sleep essential for health, development and well-being
- Both child and parent sleep disrupted by eczema
- Treatment of eczema results in improved sleep for the family



Thank You!



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