Understanding Families’ Sleep Health using a Social-Ecological Approach

Heidi S. Kane, Ph.D.
Danica C. Slavish, Ph.D.

The Center for Children and Families
Annual Spring Lecture Series
April 8, 2022
What is sleep health?

Physiological

Behavioral

Cultural

Social
What is sleep health?

Buysse, 2014
Sleep changes dramatically across the lifespan.

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Recommended Hours of Sleep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newborn</td>
<td>14-17 hours</td>
</tr>
<tr>
<td>Infant</td>
<td>12-15 hours</td>
</tr>
<tr>
<td>Toddler</td>
<td>11-14 hours</td>
</tr>
<tr>
<td>Preschool</td>
<td>10-13 hours</td>
</tr>
<tr>
<td>School-age</td>
<td>9-11 hours</td>
</tr>
<tr>
<td>Teen</td>
<td>8-10 hours</td>
</tr>
<tr>
<td>Young Adult</td>
<td>7-9 hours</td>
</tr>
<tr>
<td>Adult</td>
<td>7-9 hours</td>
</tr>
<tr>
<td>Older Adult</td>
<td>7-8 hours</td>
</tr>
</tbody>
</table>

Reference: MacLean, Fitzgerald, & Waters, 2015 Paediatric Respiratory Reviews

Sleep Foundation; March 2022
What is needed to promote optimal sleep?

- Sympathetic Arousal
- Repetitive Thoughts
- Vigilance

- Psychological Security
- Physical Safety
Why is sleep important?

- Physical health
- Social health
- Emotional health
- Individual development and performance
Social-Ecological Approach

Adapted from Grandner 2017
Individual Level

- Stress
- Personality
- SES
- Discrimination
- Work schedules

Sin et al. 2017, Slavish et al., 2018; 2021, Duggan & Krizan, 2019; Slopen, 2016; Gordon et al., 2020; Ong et al., 2017
Sleep is a Social Behavior

National Bedroom Poll, 2013
The sleep of family members are linked

- Individual factors can affect family sleep
- Shared family interpersonal experiences and interactions

Kane, Benediksen, et al., *in prep*; Kane, Ackerman, Slavish et al., *in prep*; Kouros & El-Sheikh, 2017; Meltzer & Montgomery-Downs, 2011
Family

Relationship interactions that promote sleep
  • Self-disclosure
  • Social support

Relationship interactions that hinder sleep
  • Conflict

Affects across different family members

Kane et al., 2014; Kane & Krizan, 2021; Sheikh et al., 2015; Jaremka, Kane, & Bell, in press; Kent de Grey et al., 2018; Selcuk et al., 2017; Kelly & Sheikh. 2013
Family

The sleep of family members are linked

- Individual factors can affect family sleep
- Shared family interpersonal experiences
- Shared family culture and routines
- Shared community and built (physical) environments
Community and Built Environment

**Built (Physical) Environment**
- Physical safety
- Light and Noise
- Sidewalks
- Greenspace

**Community**
- Neighborhood cohesion

DeSantis et al., 2013; Johnson et al., 2017; Hale et al., 2013; Simonelli et al., 2017; Pirrera et al., 2010; Win et al., 2018;
Community and Built Environment

Perceived Neighborhood Cohesion and Infrastructure → Psychological Distress → Adult Sleep Quality

Neighborhood Deprivation → Maternal Perceptions of Disorder and Safety → Infant Sleep Continuity

MacKinnon et al., 2021; De Santis et al., 2016
• Sleep is a critical biological, cultural, and social health behavior across the lifespan

• It is a behavior embedded within a social-ecological context

• Future work must examine the interplay predictors across the levels of this context to gain full picture of the predictors of sleep and specific interventions to address sleep
Ways to improve family sleep

• Get up at the same time each day
• Get early morning sunlight exposure
• Have a bedtime routine
• Stay physically active
• Only go to bed when you’re sleepy
• Wind down before bedtime
• Avoid caffeine and alcohol before bedtime
• Socialize and engage in enjoyable activities
Thank you!

The UT Dallas Close Relationships and Health Lab

The UNT Sleep and Health in Everyday Life Lab

Collaborators
May Yuan
Margaret Owen
Jackie Nelson
Rob Ackerman

Funding Sources
The Lewis Foundation
UTD SPIRe funding

Contact:
- Heidi.kane@utdallas.edu
- danica.slavish@unt.edu
Resources

• If you have had severe trouble falling asleep or staying asleep for 3+ nights/week for 3+ months, consider CBT-I.

• Finding a CBT-I provider: https://cbti.directory/

• Free CBT-I app: https://mobile.va.gov/app/insomnia-coach