

Sleep Hygiene Interventions for Hospitalized Pediatric Patients

COURTLAND KUNZ, BSN, RN; MARIAN MALONE, DNP, APRN, CPNP-AC/PC; DIANA JAMES, MSN, RN, NE-BC

BACKGROUND

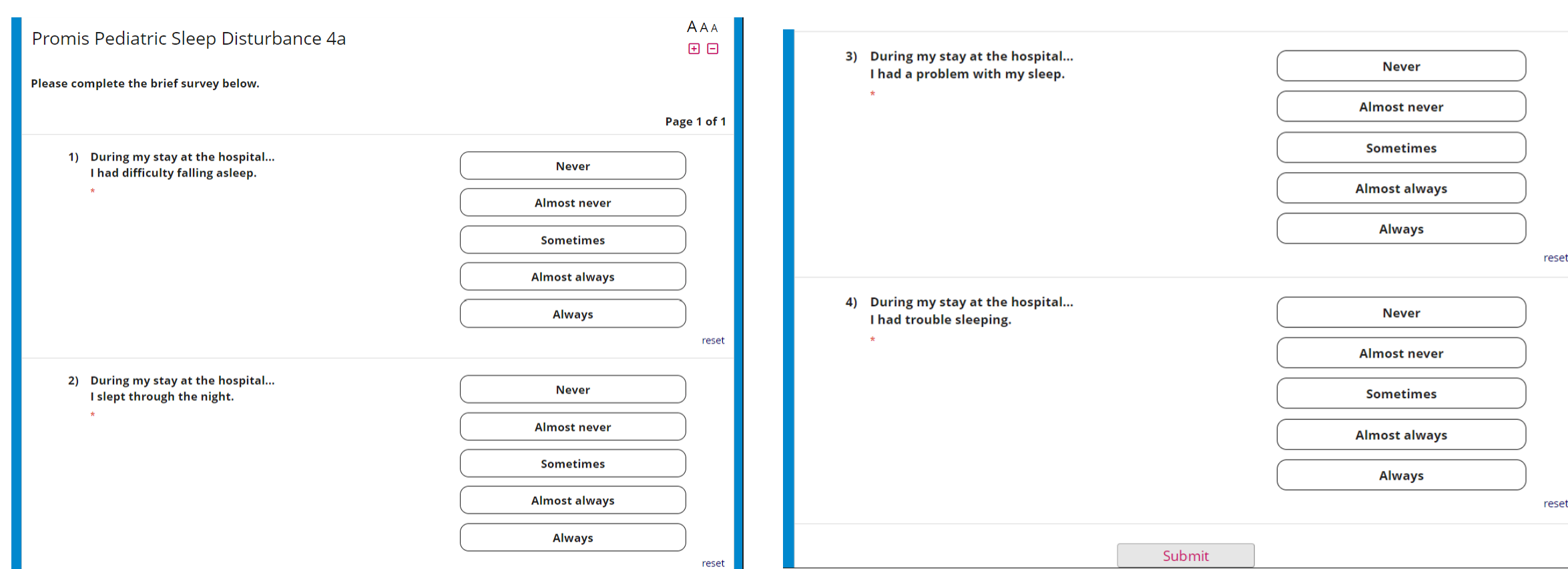
- Adequate sleep improves overall physical and mental health ⁹
- Hospitalized children receive significantly less sleep than what is recommended by the National Sleep Foundation^{11, 13}
- On average, each night hospitalized children ²¹...
 - Lose an average of 83 minutes of sleep
 - Wake up an average of 44 minutes earlier
 - Wake up 3.3 times

LOCAL PROBLEM

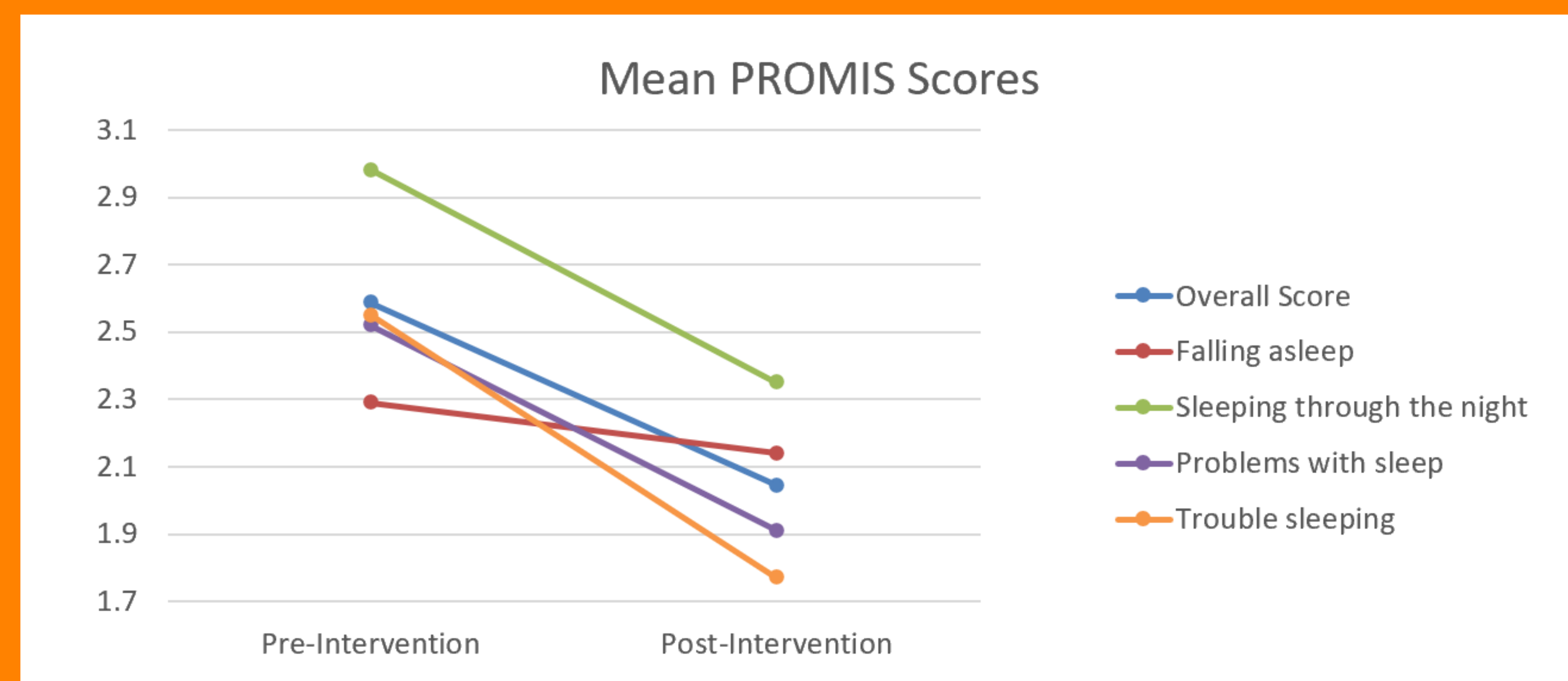
- Personal interviews with the medical director for pediatric hospitalists, the site based medical director, and the manager of the project site revealed inadequate sleep reported by pediatric patients and families.
- HCAHPS score for “patients who reported that the areas around their room was always quiet at night” is 59% ⁵
- Objective:** To improve both the quantity and quality of sleep for pediatric patients during hospital admission

METHODS

- Project Framework: The Johns Hopkins Evidence Based Practice Model for Nurses and Healthcare Providers (JHEBP) Model ^{8, 14}
- A literature review and critical appraisal demonstrated **good** and **consistent** evidence to support implementing sleep hygiene interventions to improve hospitalized pediatric patients’ perceptions of sleep ^{2, 3, 6, 8, 15, 17, 18, 20}
- Patients who met inclusion and exclusion criteria were approached for participation and asked to complete the PROMIS Sleep Disturbance 4a questionnaire
- PROMIS questionnaire data was collected for 3 weeks pre-intervention and 3 weeks post-intervention implementation ¹²



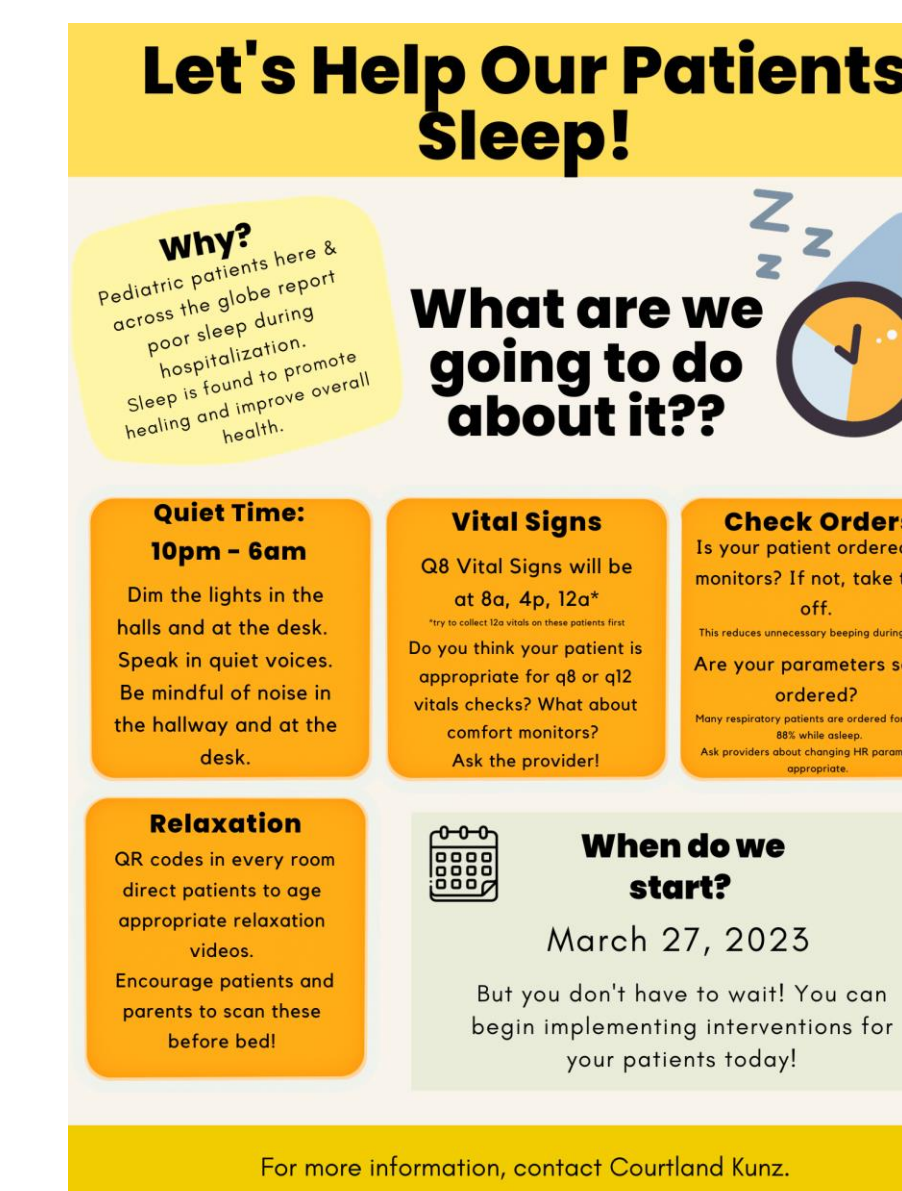
Sleep for hospitalized children is *significantly improved* after implementation of sleep hygiene interventions.



Scan me for references and for more information!

INTERVENTIONS

- Decreased overnight sleep disruptions:
 - Quiet Time from 10pm-6am
 - Asking providers to consider reducing vital sign frequency
 - Reviewing other orders that could decrease hospital noise
- Age-appropriate relaxation videos were posted in each patient room
- 2 PDSA cycles were complete— an alarm was added to remind staff to begin quiet time ¹⁴



RESULTS

Statistically significant improvements in sleep:

- Overall PROMIS Score (p-value 0.03)
- During my stay at the hospital...
 - I slept through the night (p-value 0.014)
 - I had problems with my sleep (p-value 0.011)
 - I had trouble sleeping (p-value < 0.001)
- No significant difference between child completed and parent-proxy completed questionnaires (p-value 0.795)
- No significant difference between age groups (p-value 0.721)
- No participants reported using relaxation videos during their stay

CONCLUSIONS

- Decreasing overnight sleep disruptions alone significantly improves the hospitalized pediatric patients’ perception of sleep.
- Interventions are perceived as effective by both the child and parent-proxy.
- Interventions are effective for children of all ages.
- No-cost, easy-to-implement interventions should be implemented hospital-wide