Sleep Changes in Parents of Children with Type 1 Diabetes (T1D) During the COVID-19 Pandemic

Samantha A. Carreon, KellyAnn Rooney, Christine H. Wang, Carrie Tully, Jasmine Jones, Katherine Gallagher, Maureen Monaghan, Randi Streisand, Iman Al-Gadi, & Marisa E. Hilliard

INTRO

- Parents of children with T1D are at risk for sleep disturbances, poor sleep quality, and short sleep duration.
- Sleep difficulties may have been further impacted by the COVID-19 pandemic.
- We compared parental sleep across 3 time-points (1 prior to and 2 during the pandemic).

METHODS

- Participants: 123 parents of youth with T1D who completed a behavioral RCT ≥ 6 months earlier.
- Surveys were completed at RCT completion (pre-pandemic), June/July 2020 (early pandemic), and February/March 2021 (late pandemic).
- Measures: Pittsburgh Sleep Quality Index (PSQI) adapted to include T1D-related sleep questions and 2 sleep items from a COVID-19 survey.
- Compared pre-pandemic to 2020 and 2021 data using χ^2 tests.

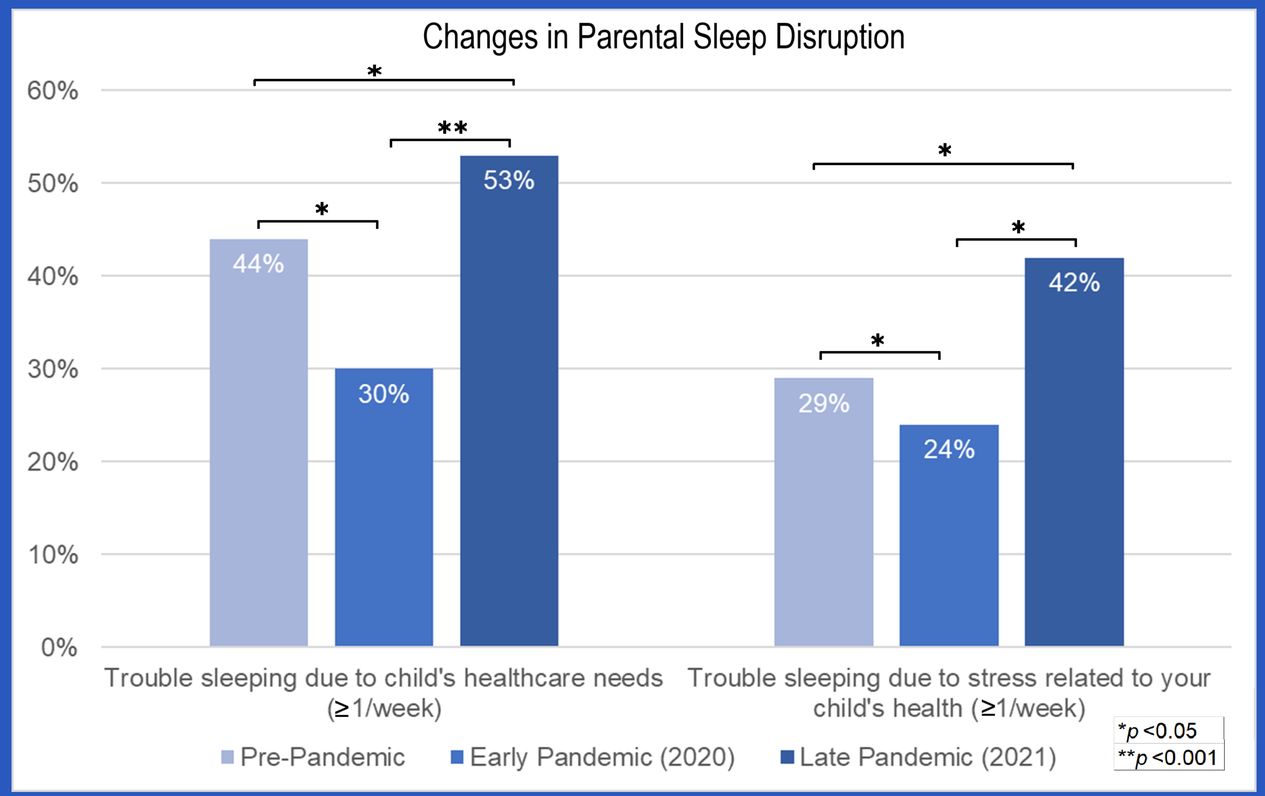
RESULTS

- Many parents endorsed clinically significant poor sleep (PSQI Global Score >5) in 2021 compared to pre-pandemic or early in the pandemic in 2020. (Figure 1)
- Self-reported sleep difficulty due to child's diabetes-specific healthcare needs or related stress initially decreased or improved in the early pandemic then significantly increased later in the pandemic.
- Parents endorsing moderate-to-extreme difficulty sleeping during the pandemic significantly increased from 29% in 2020 to 43% in 2021 (p=.012).

DISCUSSION

- Parents of children with T1D experienced negative changes in sleep as the pandemic progressed.
- Early stages of the pandemic may have paused out-of-home activities allowing for more oversight on diabetes. management. Sleep difficulties may have compounded with stressors as people adjusted or pandemic restrictions loosened.
- Parental sleep impacts psychosocial wellbeing and T1D management, warranting clinical attention especially in the context of stressors such as the COVID-19 pandemic.

Parents of children with T1D experienced changes in sleep during the pandemic: Some aspects appeared to improve initially, but <u>diabetes-specific sleep disruptions</u> <u>increased</u> as the pandemic progressed



Abstract & Poster Available at: bit.ly/XXXX | sxcarreo@texaschildrens.org | @DrSamCarreon

PARTICIPANT CHARACTERISTICS

Sample Demographics (2020) (M±SD or %)	Parents (n=123)	Child with T1D
Age, Years	36.6 ± 6.6	6.5 ± 1.7
Gender, Female	94%	58%
Insurance Type, Public	-	26%
Diabetes Duration, Years	-	2.7 ± 0.7
Insulin Pump Use	-	25%
HbA1c	-	8.3 ± 2.0

PARENT RACE/ETHNICITY

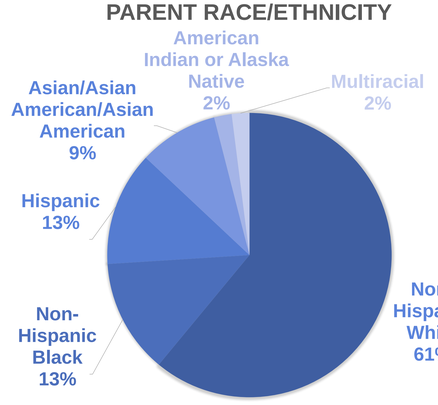
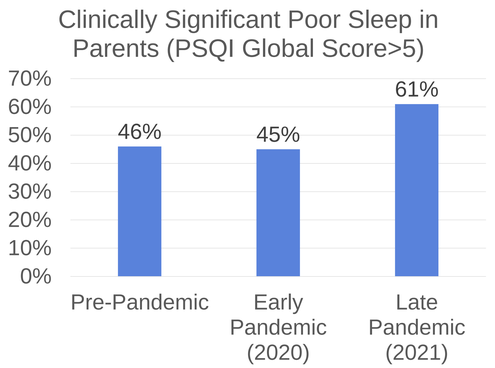


FIGURE 1



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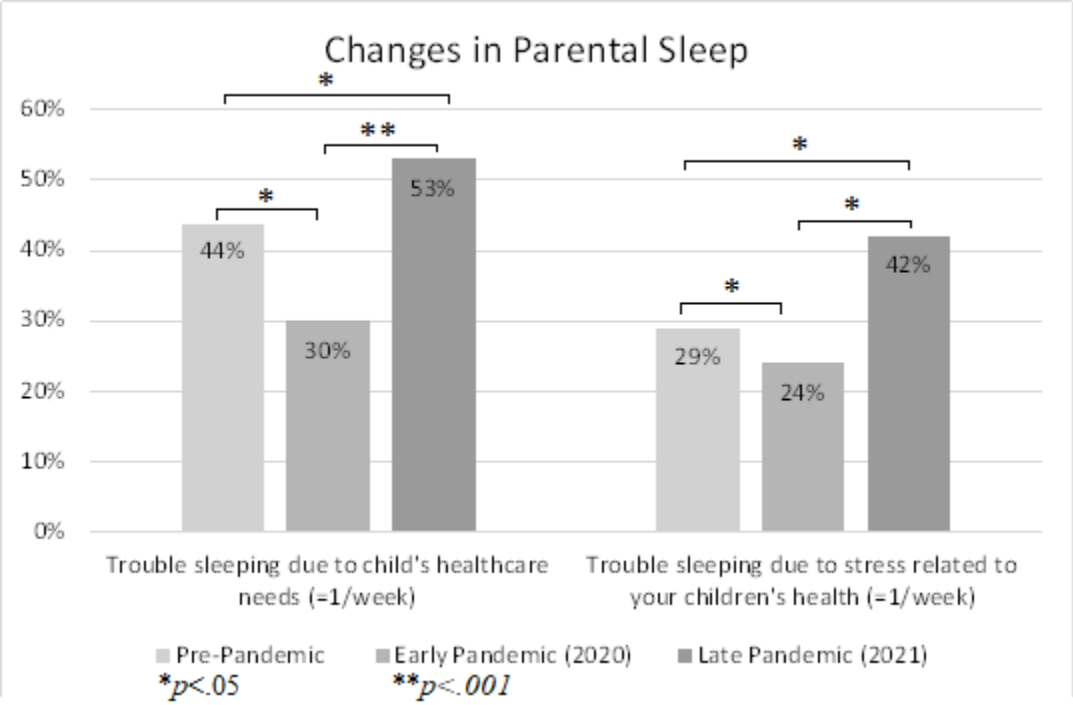
Sleep Changes in Parents with Children with Type 1 Diabetes (T1D) During the COVID-19 Pandemic

Introduction: Parents of children with T1D experience sleep difficulties. During the COVID-19 pandemic, families experienced new stressors and routines which may have further impacted sleep and T1D management. We compared parental sleep across three time-points (1 prior to and 2 during the pandemic).

Methods: Parents (n=123, 93% mothers) of youth with T1D (M_{age}=6.5±1.7 yrs, $M_{duration}$=2.7±.7 yrs) in a behavioral RCT completed surveys at: RCT completion, June/July 2020, and February/March 2021. Parents completed the Pittsburgh Sleep Quality Index (PSQI) with T1D-related sleep questions and 2 sleep items from a COVID-19 experiences survey. We compared sleep difficulties pre-pandemic to 2020 and 2021 data using χ^2 tests.

Results: Many parents (61%) endorsed clinically significant poor sleep in 2021 compared to pre-pandemic (46%) or earlier in the pandemic in 2020 (45%). Similarly, diabetes-specific sleep disruptions (i.e., difficulty sleeping due to child's healthcare needs, stress related to child's health) initially decreased in the early pandemic then significantly increased later in the pandemic (Figure). Parents endorsing moderate-to-extreme difficulty sleeping also significantly increased throughout the pandemic from 29% in 2020 to 43% in 2021, p=.012.

Conclusions: Parents of children with T1D experienced changes in sleep during the pandemic. While some aspects of sleep appeared to improve initially, diabetes-specific sleep disruptions have increased as the pandemic has progressed. Sleep difficulties in parents of children with T1D may have been delayed or may have compounded as people adjusted or as pandemic restrictions loosened. As parental sleep impacts psychosocial wellbeing and T1D management, it warrants clinical attention especially in the context of stressors such as the COVID-19 pandemic.


Changes in Parental Sleep
60%
50%
40%
30%
20%
10%
0%
*
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*
*
*
*
44%
30%
53%
29%
24%
42%
Trouble sleeping due to child's healthcare needs (=1/week)
Trouble sleeping due to stress related to your children's health (=1/week)
Pre-Pandemic
Early Pandemic (2020)
Late Pandemic (2021)
*p<.05
**p<.001