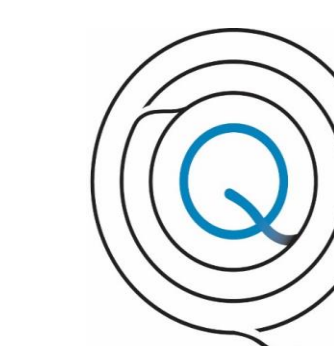


Diabetes and Sleep: Qualitative Perspectives from People with Type 1 Diabetes and Their Parents and Partners



DIABETES
QUALITY OF LIFE
STUDY



Baylor
College of
Medicine

INDIANA UNIVERSITY
SCHOOL OF MEDICINE

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INTRO

- Little is known about individual and family experiences related to how type 1 diabetes (T1D) impacts sleep.
- Study aim: describe perspectives of people with diabetes (PWD) and their parents and partners about sleep and diabetes.

METHODS

- Participants: youth and adults with T1D (ages 9-69), their parents and partners. (Please see table for details.)
- Semi-structured qualitative interviews about T1D-related quality of life.
- Completed secondary analysis of sleep-related content.
- Coded interview transcripts using rigorous thematic analysis.

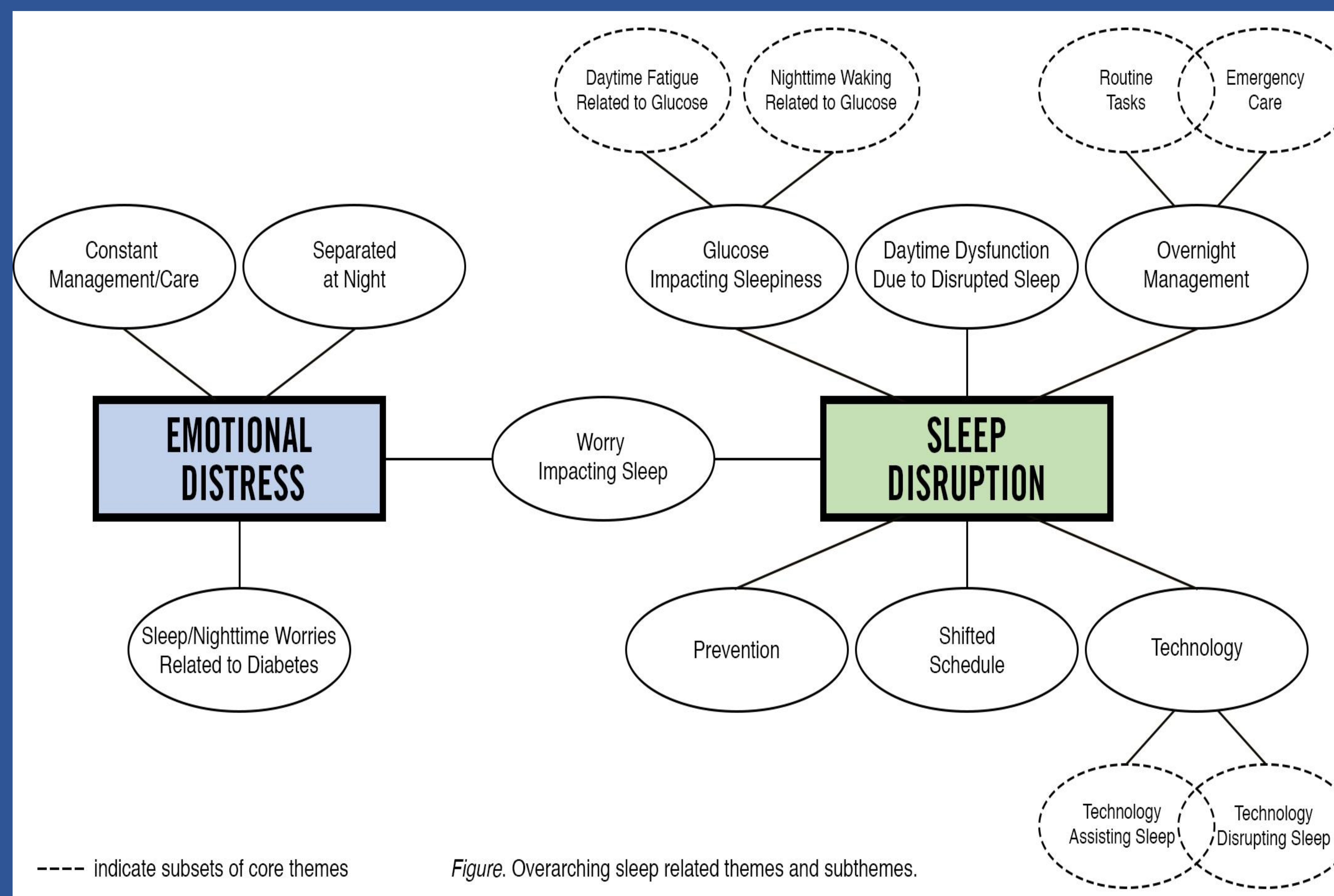
RESULTS

- The figure illustrates the major themes and subthemes we identified.
- All respondent types reported disrupted sleep and negative feelings about T1D-related sleep issues. (Quotes illustrate each theme.)

DISCUSSION

- Youth and adults with T1D and family members described emotional and behavioral aspects of T1D and sleep.
- More research on sleep disruption and the impact of technology on sleep may inform diabetes care.

Sleep disruption and emotional distress about sleep are common concerns among youth and adults with type 1 diabetes and their family members.



TABLES/FIGURES

Sample Demographics (M±SD or %)			
	PWD (n=44)	Parents (n=25)	Partners (n=14)
Age, Years	31.9 ± 19.3	-	-
Gender, Female	50%	96%	43%
Race/Ethnicity, Non-Hispanic White	71%	40%	93%
HbA1c	8.25 ± 2%	-	-
Pump Use	52%	-	-

Emotional Distress

Constant Management/Care

"What we have to go through, every day, from Monday through Friday, every month, every morning, night, and this is something we have to deal with every day." (Parent of 13 year old)

Separated at Night

"Sometimes I worry when I'm spending the night at a friend's house, and if I'm like high or low in the middle of the night and I don't hear my Dex." (11 year old PWD)

Nighttime Worries

"What happens if I go too low in the middle of the night and have a seizure of something? Thank God there's someone there who can help me out." (Adult PWD)

Sleep Disruption

Overnight Management

"Lack of sleep. That is the hardest. That really is the hardest especially as they grow up and their insulin needs change." (Parent of 11 year old)

Technology

"Just the constant attention I think...All night I have my Dexcom on me, so if it buzzes, I'll have to wake up. So it might go high in the middle of the night for no reason." (23 year old PWD)

Prevention

"I try to keep a similar dinner pattern...if she eats later in the evening it's harder to manage and causes her discomfort and difficulty sleeping..." (Partner of 65 year old)

Funded by The Leona M. and Harry B. Helmsley Charitable Trust (2015PG-T1D084 (PIs: Hilliard & Anderson) & NIDDK 1K12DK097696 (PI: Anderson))

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Diabetes and Sleep: Qualitative Perspectives from People with Type 1 Diabetes and Their Parents and Partners

Introduction: There is growing interest in how type 1 diabetes (T1D) impacts sleep, yet little is known about patient and family experiences. This study characterized perspectives of people with diabetes (PWD) and their parents and partners about T1D-related sleep issues.

Methods: As part of a qualitative study on T1D-related quality of life, 44 PWD ages 9-69 ($M=31.9\pm19.29$ years; 50% female; $M_{A1c}=8.25\pm1.51\%$), 25 parents (96% female), and 14 partners (43% female) participated in semi-structured interviews. We coded transcripts using content analysis to derive sleep-related themes.

Results: Two major themes emerged (Figure). Emotional Distress: all groups expressed worries about hypoglycemia while asleep, and parents described distress about the constant demands of T1D and nighttime management burdens. Sleep Disruption: blood glucose excursions and overnight management interrupted sleep. Technology both disrupted sleep (e.g., alarms) and improved sleep (e.g., trust device to inform about urgent problems).

Conclusions: PWDs and family members described emotional and behavioral aspects of T1D impacting sleep. Emotional distress, overnight management, and glucose variability disrupted sleep. Taking steps to minimize overnight glucose excursions may reduce distress and improve sleep. More research on sleep disruption and the impact of technology on sleep may inform diabetes care.

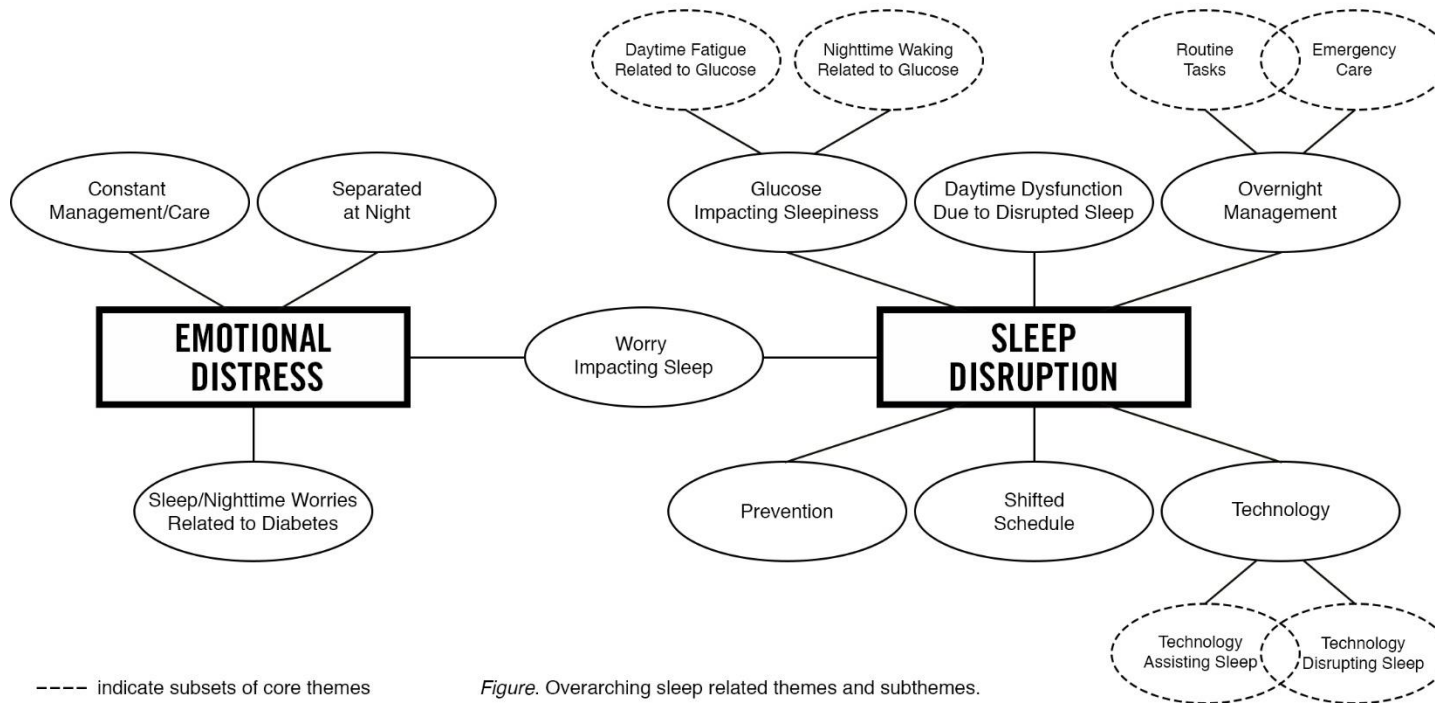


Figure. Overarching sleep related themes and subthemes.