

## NURSING

SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATE students

FOR APPLICATION YEAR: 2025

PROJECT TITLE: Defining Relationships of Early Mediators and Moderators of Sleep (DREAMS)

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**Project Description**

Area. Funded by the National Institutes of Health, National Heart Lung and Blood Institute, this research will define disparities in young children's sleep health.

Major causes of sleep deficiency affect around 40% of children at some point and 11% through adulthood. If untreated, early sleep deficiency can contribute to health, behavior, and learning disparities at kindergarten entry that may persist into adulthood. Yet, early causes of sleep deficiency are grossly underdiagnosed in primary care, and few receive evidence-based treatment. Evidence also suggests that sleep deficiency and downstream outcomes are significantly worse for children with family risk factors such as low income, education, and parental mental health. Because these risk factors are unjustly borne by children who are Black or living in poverty, whose families may have few resources to seek help outside of primary care, these sleep health disparities reflect a critical early health inequity. Yet, limited research defines inequities in early childhood sleep health. Our objective in this proposal is to empirically test the sleep health socioecological framework to define how comprehensive multi-level socioecological factors predict inequities in early childhood sleep health. We are testing this objective in a micro-longitudinal study of 550 racially and economically diverse families of young children (20-48 months of age, when sleep health disparities likely develop).

Tasks. The student will be helping with primary data collection and data processing. The research assistant will collect data from young children during home visits. This data includes a parent-child observation, electronic survey data, sleep data, and sampling of hair and saliva. Immediately after the home visit, the student will transport these data materials back to labs at the University of Cincinnati for processing. Other duties supporting the study may be assigned.

Training. The student will receive training on primary data collection and processing. Data collection training includes parent-child observations with standardized instruments and how to sample hair from young children. Data processing will consist of transporting saliva samples to laboratories for freezing, downloading and organizing sleep data from wearable devices, and storage of hair samples.

Requirements. This position is participant-facing and involves primary data collection from families with young children. As such, the student must have a reliable and predictable personal vehicle and schedule to conduct scheduled home visits with research participants. Based on participant preferences, some of these visits may occur outside of regular business hours (e.g., evenings and weekends).