

UNDERGRADUATES PURSUING RESEARCH IN SCIENCE AND ENGINEERING (UPRISE)

NURSING

FOR APPLICATION YEAR: 2026

PROJECT TITLE: <u>Defining Relationships of Early Mediators and Moderators of Sleep</u>
(<u>DREAMS</u>) Research Study

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Project Description

Background

This multi-site research study aims to define multi-level influences on young children's sleep health (1.5-4 years old, n = 550 racially and economically diverse families). Sleep deficiency affects approximately 40% of children at some point and 11% into adulthood. If left untreated, early sleep problems can contribute to health, behavioral, and learning differences at kindergarten entry that may persist throughout life. Early causes of sleep deficiency are grossly underdiagnosed in primary care, few have access to or receive evidence-based treatment, and little is known about the extent to which structural factors influence early sleep health. The study is funded by the National Institutes of Health (NIH), National Heart, Lung, and Blood Institute (NHLBI) (\$3.4 million; IRB approval #2024-0202) and is conducted with The Ohio State University, Yale University, and numerous community organizations and health clinics.

Tasks

- Data collection: driving to and conducting home visits with young children, observing parent-child interaction with a standardized tool, collecting child's hair sample
- Data management: on REDCap, sleep actigraphy and software, physical hair and saliva samples in wet lab, other approved software (e.g., Microsoft, Google)
- Data cleaning: with secure software including REDCap, SPSS or R/RStudio, Microsoft products, sleep actigraphy

Immediately after driving to and from a home visit, the student will drive and transport materials to two UC labs for processing and storage (Procter Hall, Kettering). Data cleaning may be completed in a hybrid format using a secure UC-issued laptop. Additional duties may be assigned.



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Training

Dedicated onboarding, refreshers, assessment checks, and check-ins will be provided using a variety of materials and techniques including hands-on practice. Ongoing mentorship will be provided by principal investigator Bates and other multi-site team experts as applicable.

Requirements

The greatest need for this project is participant-facing work, involving direct data collection from families with young children. Therefore, the student must have:

- reliable personal vehicle (mileage reimbursed from the project)
- current, unrestricted driver's license
- reliable smart phone
- excellent communication, organization, emotional intelligence, attention to detail skills
- Ability to pass a background check and adhere to all applicable or related study protocols, policies, regulations, etc.
- Flexibility to occasionally work evening and weekend hours to fit participants' schedules

Skills and/or Experiences Gained:

- Data collection
- Data management
- Data cleaning
- Large, multi-site health research management with children and adults
- Opportunity to participate in scientific dissemination (e.g., research publications)