

cardiometabolic intervention efforts should target adolescents who may be living within risky childhood environments.

Support (If Any): None.

0062

RACE/ETHNICITY, SLEEP DURATION, AND ALL-CAUSE MORTALITY RISK IN THE UNITED STATES

Justin Denney¹, Anna Zamora-Kapoor¹, Devon Hansen¹, Paul Whitney¹

Washington State University¹

Introduction: Health experts recommend that adults should sleep between 7 to 9 hours in a 24-hour period, with data indicating higher mortality risks both above and below these thresholds. However, no study to date has examined the association between sleep duration and mortality risk across racial/ethnic groups.

Methods: Data from the linked mortality files of the 2004-2015 National Health Interview Survey (NHIS) were used to examine the association between sleep duration and all-cause mortality among U.S. adults. Of 278,103 adults aged 25+, 22,347 individuals died over the follow-up period. Sleep duration was coded as: <7 hours, 7 to 9 hours, and >9 hours. Race/ethnicity was categorized as: non-Hispanic (NH) White, NH Black, NH American Indian/Alaska Native, NH Asian, NH multiple races, and Hispanic. Cox Proportional Hazard models were used to estimate associations between sleep duration, race/ethnicity, and mortality. All results are reported as relative risk ratios (RRR).

Results: Across the sample, we replicated previous research, finding increased mortality risk for those sleeping <7 hours or >9 hours in a 24-hour period. Relative to NH Whites, after adjustments for sociodemographic and socioeconomic variables, mortality risk for NH Blacks and NH multiracial individuals was statistically indistinguishable while NH Asians (RRR= 0.79; $p < 0.001$) and Hispanics (RRR= 0.80; $p < 0.001$) had lower risk. Interactions between sleep duration and race/ethnicity showed that NH White adults sleeping >9 hours experienced 1.82 times higher ($p < 0.001$) risk than those sleeping 7 to 9 hours. This risk was greater than NH Blacks (RRR= 1.42; $p < 0.001$), NH Asians (RRR= 1.00; $p < .05$), and Hispanics (RRR= 1.15; $p < 0.01$). Further, stratified regression analyses showed heightened mortality risks only for NH Whites sleeping <7 hours (RRR= 1.06; $p < 0.05$).

Conclusion: The association between sleep duration and all-cause mortality risk varies by race/ethnicity. While sleeping <7 hours in a 24-hour period is thought to increase mortality risk, we found this is specific to NH Whites. Sleeping >9 hours is associated with a higher mortality risk, but more so for NH Whites than other groups. More research on sleep duration and mortality that takes race/ethnic specific risk factors into account is needed to identify causal mechanisms.

Support (If Any): Health Equity Research Center (HERC) at Washington State University

0063

BIOPSYCHOSOCIAL PREDICTORS OF SLEEP HEALTH IN BLACK, ASIAN, AND HISPANIC/LATINX SAMPLES

Spencer Nielson¹, Natalie Dautovich¹, Joseph Dzierzewski¹

Virginia Commonwealth University¹

Introduction: Sleep health is an important aspect of sleep and is associated with biopsychosocial factors such as physical health, mental health, and social functioning. Disparities in sleep health are widely prevalent in individuals who identify as Black, Asian, and Hispanic/Latinx. Investigating unique associations between

general sleep health and biopsychosocial factors may elucidate underlying associations and lead to innovative approaches to promote sleep health in these historically marginalized populations.

Methods: 3,284 adults participated in an online study investigating sleep longitudinally across normal development (ISLAND). These analyses were conducted in the samples of individuals who self-identified as Black ($n = 263$, Mage = 40.6 years, 52.1% female), Asian ($n = 208$, Mage = 34.8 years, 39.9% female), and Hispanic/Latinx ($n = 216$, Mage = 35.8 years, 44.4% female). Participants were stratified across the lifespan, with equal numbers of men and women recruited. Participants completed several questionnaires including demographics, the RU-SATED, Patient Health Questionnaire-15 (PHQ-15), Patient Health Questionnaire-2 (PHQ-2), Generalized Anxiety Disorder-2 (GAD-2), and the De Jong Gierveld Loneliness Scale. Multiple regression analyses were conducted within each group to determine whether biological (PHQ-15 without the sleep item), psychological (composite score of PHQ-2 and GAD-2), and social (social loneliness factor of the De Jon Gierveld Loneliness Scale) predictors of sleep health while controlling for demographic variables (i.e., age, sex, education).

Results: Within the Black sample, lower mental health functioning was associated with poorer sleep health ($p = 0.008$). Within the Asian sample lower physical functioning and lower mental health functioning were significantly associated with poorer sleep health (p 's < .001). Within the Hispanic/Latinx sample, lower physical functioning was significantly associated with poorer sleep health ($p < .001$).

Conclusion: Sleep health was observed to be associated with biopsychosocial factors within Black, Asian, and Hispanic/Latinx samples. Unique patterns of associations were observed within each sample. Future research would benefit from employing longitudinal designs or using more objective measurements to further elucidate these associations.

Support (If Any): National Institute on Aging of the National Institutes of Health under Award Number K23AG049955 (PI: Dzierzewski).

0064

YOUTH SLEEP-WAKE EXPERIENCE IN JUVENILE JUSTICE FACILITIES: A DESCRIPTIVE ANALYSIS

Kelsey Woodard¹, Julianna Adornetti¹, Josefina Munoz Nogales¹, Mea Foster¹, Lauren Leask¹, Ryann McGee¹, Marianna Carlucci¹, Stephanie Crowley², Amy Wolfson³

Dept. of Psychology, Loyola University Maryland¹ Biological Rhythms Research Laboratory, Dept. of Psychiatry & Behavioral Sciences, Rush University Medical Center² Loyola University Maryland³

Introduction: Adolescents are susceptible to sleep loss due to biological and environmental factors such as delayed circadian timing and schedule demands. Few studies have examined sleep-wake patterns for adolescents residing in juvenile justice facilities. The current study assessed youth's self-reported sleep-wake schedules, sleep environment perceptions, and sleep quality.

Methods: Participants were recruited from 11 juvenile services detention and treatment facilities in Maryland. For seven consecutive mornings, youth completed a sleep-wake diary reporting their bed/wake times, sleep onset, and type of (nocturnal) light exposure. Youth wore digital wristwatches to accurately depict their sleep-wake schedules. Sleep quality and wake difficulty were rated on a scale from 1-10 (1=very poor/easy to 10=very good/hard, respectively).

Results: Participants (N= 64) were 13-19 years old (M= 16.7, SD= 1.3 years) and 85.9% male. Racial backgrounds: 61% Black, 18% White, 8% Multiracial, and 13% Other. Youth-reported bedtimes (M= 21:04, SD= :50) were about 50 minutes earlier than their sleep onset times (M= 21:52, SD= 1:02) while wake times (M= 6:41, SD= :46) were about 20 minutes earlier than the time youth reported leaving their bed (M= 7:00, SD= :44). Youth disclosed waking up throughout the night (M= 1.7, SD= 9) for an average 16.8 minutes (SD= 14.9). Multiple diary-responses (58%) noted “partial or overhead” lights were on in youth’s sleeping areas; 23.4% wrote in “other” types of light sources, most of which were blue lights (63%). Average sleep quality (M= 5.7, SD= 2.1) and difficulty waking up ratings (M= 5.4, SD= 2.2) indicate mediocre sleep.

Conclusion: Findings summarize youth’s sleep-wake experience while residing in a juvenile justice facility. Reported bedtimes are earlier than sleep onset times which increases the likelihood for conditioned insomnia. Circadian dysregulation of sleep behavior can develop from frequent night awakenings and light exposure, particularly, blue light. Ultimately, these findings will help develop facility-wide interventions, improving the youth’s sleep-wake schedules and other environmental influences.

Support (If Any): This research is made possible by the American Academy of Sleep Medicine (AASM) Foundation Award #22-CS-19 and Department of Juvenile Services’ supportive collaboration.

0065

GEOGRAPHIC ASSOCIATION BETWEEN NEIGHBORHOOD SLEEP HEALTH AND CHILD OPPORTUNITY INDEX: DATA AT THE CENSUS TRACT LEVEL

Sydney Phan¹, Suzanne Gorovoy¹, Tommy Begay¹, Dora Valencia¹, Lauren Hale², Rebecca Robbins³, William Killgore¹, Chloe Wills¹, Michael Grandner¹

University of Arizona ¹ Stony Brook University ² Harvard University ³

Introduction: Sleep health impacts the community in many ways. Regional sleep health may reflect other important indicators of health and well-being. Few studies have examined sleep health at the regional level, though.

Methods: Data on neighborhood sleep health values were obtained from the “500 Cities” data collected by the CDC that includes census tract and proportion of the population in that region that report values associated with health, as assessed with the Behavioral Risk Factor Surveillance System. Data include the population of each census tract as well as census-estimated proportion of the population in each census tract that report obtaining at least 7 hours of sleep. Additional variables included as covariates in analyses included the proportion with healthcare access, that were obese, had high blood pressure, had diabetes, and were smokers. The Child Opportunity Index (COI) is a publicly-available index (DiversityDataKids.org) reported at the census tract level. It provides indices for “Education,” “Health & Environment,” and “Social & Economic” domains, as well as a global score. The present analysis merged the 500 Cities data with the COI data, using census tract as the matching variable. Linear regression analyses examined COI global and subscale scores as outcome variable and proportion of the population obtaining 7 hours of sleep as the

independent variable, unadjusted and adjusted for covariates. When data were merged, 27,130 census tracts were included.

Results: Sleep sufficiency was associated with global COI, such that for each additional percent of the population that obtains ≥ 7 hours of sleep, COI increases by 3.6 points (95%CI[3.57,3.64]; $p < 0.0001$); this was attenuated in adjusted analyses (B=1.58; 95%CI[1.53,1.63]; $p < 0.0001$). Each component of COI was related to sleep sufficiency, including education (B=3.06; 95%CI[1.19,1.33]; < 0.0001), health & environment (B=3.61; 95%CI[3.57,3.64]; $p < 0.0001$), and social & economic (B=2.23; 95%CI[2.19,2.28]; $p < 0.0001$). All associations were attenuated but significant in adjusted analyses.

Conclusion: Regional prevalence of insufficient sleep was linearly associated with Child Opportunity Index, which itself is an important predictor of a wide range of health and economic outcomes. Community sleep health interventions may have wide-ranging benefits.

Support (If Any):

0066

A MEXICAN SPANISH VERSION OF THE ASSESSMENT OF SLEEP ENVIRONMENT

Dora Valencia¹, Tommy Begay¹, Karla Granados¹, Marcos Delgadillo¹, Sadia Ghani¹, Patricia Molina², Pamela Alfonso-Miller³, Chloe Wills¹, Michael Grandner¹
University of Arizona ¹ Mariposa Community Health Center ²
Northumbria University Newcastle ³

Introduction: Sleep research that has been previously completed with individuals of Mexican descent generally do not use instruments that have been translated in accordance with the language norms of the target community. In this study, the Assessment of Sleep Environment (ASE) was translated by a bilingual research study team. The ASE was then completed by English and Spanish speaking participants, in their preferred language.

Methods: Data were collected from a sample of N=100 individuals of Mexican descent in Nogales, Arizona, located at the US-Mexico border. The ASE is a 13-item scale that quantifies the degree to which an individual perceives that their physical environment interferes with their sleep quality. It includes items about heat, cold, noise, quiet, light, dark, smell, humidity, comfort of sleeping surface and bedding, and safety. To translate the measure into Spanish, the following procedure was followed: (1) a bilingual study team member performed an initial translation; (2) a bilingual community member edited the translation; (3) a certified medical translator edited the revision; (4) a focus group of N=5 bilingual community members made contextual edits; (5) a back-translation was performed; (6) an additional bilingual focus group examined the final version for compatibility; and (7) the medical translator certified the accuracy of the final version. T-tests examined differences between those who completed the measure in Spanish vs English.

Results: Of the N=100 survey respondents, N=42 completed the ASE in Spanish. No significant differences were seen in overall scores between those who completed the measure in English or Spanish ($p=0.17$). In addition, no differences were seen for individual items assessing light ($p=0.19$), dark ($p=0.21$), noise ($p=0.73$), quiet ($p=0.15$), heat ($p=0.08$), cold ($p=0.96$), pillows ($p=0.93$), firmness ($p=0.98$), other sleeping surface issues ($p=0.08$), or safety ($p=0.28$), but mean differences were seen for humid (0.04), smell (0.04), and softness ($p=0.02$), with respondents to the Spanish version reporting a lower degree of disturbance due to these factors.