

**Results:** In the training dataset, the algorithm had a sensitivity=75%; specificity=91%, positive predictive value (PPV)=90%, and a negative predictive value (NPV)=87%. The area under the receiver operating characteristics (AUC) curve in the training set was 0.84. When the algorithm was evaluated in the testing dataset, we found a sensitivity=53%, specificity=91%, PPV=78%, and NPV=77%. The AUC in the testing dataset was 0.78.

**Conclusion:** A simple pattern matching algorithm designed to identify sleep complaints in primary care progress notes showed good performance in the training set and acceptable performance in the testing set. Further refinement of this algorithm with potential incorporation of natural language processing might offer a feasible approach to screen patients for underdiagnosed sleep disorders using primary care clinical notes.

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## 0611

### INTRAINDIVIDUAL VARIABILITY IN SUBJECTIVE SLEEP AND AVERAGE FATIGUE IN PARENTS OF CHILDREN ON THE AUTISM SPECTRUM

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**Introduction:** Fatigue is related to various adverse health outcomes. Mean levels of some common sleep variables, such as total sleep time (TST), sleep onset latency (SOL), and wake after sleep onset (WASO), have been associated with fatigue. However, intraindividual variability (IIV) of sleep parameters might play an independent role in sleep's relationship with fatigue. Understanding fatigue is particularly important for parents of children with autism spectrum disorder (ASD) given fatigue's negative associations with positive parenting and implementation of child interventions. This preliminary study examined linear associations between subjective sleep IIV and mean fatigue levels in parents of children on the autism spectrum.

**Methods:** The sample included 66 parents who expressed interest in a behavioral treatment sleep study for their school-aged children diagnosed with ASD (6-12 years old; NCT04545606). All parents (Mage=37.03, SD=6.53; 91% female) completed daily electronic diaries over a two-week baseline period. Daily fatigue rating was collected using a visual analog scale (0-100) and averaged within individuals. Within-individual standard deviations of subjective TST, SOL, and WASO were calculated to estimate IIV. Data were analyzed in R (v4.1.2) using multiple linear regression models controlling for participant age, gender, and individual sleep parameter means.

**Results:** Bivariate correlations between sleep variable IIV and average fatigue indicated a positive association between TST variability and average fatigue,  $r(64)=0.33$ ,  $p<0.01$ . Multiple regression analyses showed that greater IIV of TST was associated with higher average fatigue ( $\beta=0.14$ , 95%CI [0.01, 0.27],  $sr^2=0.06$ ,  $p=0.041$ ). No significant associations were found between average fatigue level and IIV of WASO or SOL.

**Conclusion:** Results suggest that greater TST variability may be one factor independently contributing to higher fatigue levels in parents of children on the autism spectrum, which warrants further examination of sleep variability in this population. Future research could explore IIV of additional sleep parameters, fatigue IIV as an outcome, alternative methods of sleep measurement, and study designs that address

causation. Increased insight into these connections might inform the importance of considering sleep interventions for both children and parents, and potential subsequent treatment benefits.

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## 0612

### DOES COPING STRATEGY PROTECT SLEEP QUALITY DURING COVID-19? AN EXAMINATION OF RACIAL, ETHNIC, CULTURAL DIFFERENCES

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**Introduction:** Little has been done to examine within/between group predictors and mediators of race/ethnic differences in sleep health outcomes, due to COVID-19 exposure. We evaluated the effect of COVID-19 exposure on sleep quality in a multiracial/ethnic sample of New York residents.

**Methods:** We conducted a cross-sectional study among adults exposed to COVID-19 across New York State from September to November of 2020. Comparisons of participant characteristics e.g., mean scores by race/ethnicity status were made using one-way ANOVA for continuous variables, and chi-square tests for categorical variables. Associations between social determinants of health (employment, location), Trauma Coping Self-Efficacy (CES-T), and sleep quality (Pittsburgh Sleep Quality Index-PSQI) were examined using multilinear regression analysis stratified by race/ethnicity.

**Results:** Of the 541 participants, 373 (68.9%) were female; mean age was 40.9 years (SD=15), 198 (36.6%) identified as Whites, 111 (20.5%) as Black, 97 (17.9%) as Hispanics, and 135(25%) identified as either Asians, Native-Americans, Pacific-Islanders. Sex was the strongest predictor [ $\beta = 1.335$ ;  $p < .05$ ] of sleep quality, but only among Whites. Trauma Coping Self-Efficacy was negatively associated with sleep quality among Asian, Native-American, or Pacific-Islander participants [ $\beta = -.114$ ;  $p < .05$ ]; Black [ $\beta = -.099$ ;  $p < .05$ ] and White participants [ $\beta = -.079$ ;  $p < .05$ ] but not among Latinos/as [ $\beta = -.058$ ;  $p = 0.71$ ].

**Conclusion:** Coping Self-Efficacy moderated the effect of COVID-19 on sleep quality among some, but not all, racial/ethnic groups. While CSE-T scores during the first wave of COVID-19 acted as a protective factor for sleep quality among Asians, Native-Americans, and Pacific-Islanders, White and Black participants, this was not the case for Latinos/as/Hispanics residing in New York. Clinical interventions that are tailored for racial/ethnic, community and cultural needs may help to mitigate sleep problems associated with COVID-19 exposure.

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