awake, and their interaction, and determined the local effect size for interaction. A 0.03rad (1.7°) threshold yielded the greatest effect size, f^2=0.031 (small). For this threshold, we repeated the analysis using the data from both studies, controlling for study. The interaction was significant ($F[3,1428]=13.23$, $p<0.001$), showing low driving impairment across time awake during day shifts but increasing impairment across time awake during night shifts.

Conclusion: The prevalence of steering wheel excursions beyond a 1.7° angle threshold yielded sensitivity to fatigue-related driving performance impairment during simulated night shifts. Further research will extend our results to driving through curves and with greater fatigue levels.

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THE ASSOCIATION BETWEEN SLEEP REGULARITY INDEX AND SELF-REPORTED BEHAVIORAL AND EMOTIONAL SYMPTOMS IN ADOLESCENTS

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Introduction: Among adolescents, sleep health has been associated with emotional and mood regulation, cognitive functioning, and behavior. Few studies, however, have examined the Sleep Regularity Index (SRI, Phillips et. al, 2017) and its associations with mental health and well-being in this age group. For this study, we examined whether SRI in 15-16-year-old adolescents would predict internalizing and externalizing symptoms as measured by Youth Self-Report (YSR) scores two years later. We hypothesized that a higher baseline sleep regularity would predict lower internalizing and externalizing YSR scores at the 2-year follow-up.

Methods: The sample included 32 adolescents (14 male) ages 15-16yr (mean = 15.6) at baseline and 2 years later (mean age = 17.7). Actigraphy data and YSR scores were collected at baseline, and YSR was examined at follow-up. Participant's SRIs were calculated using 24-hour actigraphy data scored for sleep and wake. YSR T-scores of 60 or above indicate borderline clinical internalizing (n = 2) and externalizing (n = 4) symptoms at follow-up. We used linear regression modeling to determine whether baseline SRI predicted YSR scores 2 years later. Covariates included sleep start time, sleep duration, sex, and baseline YSR scores.

Results: At baseline, average SRI and YSR scores were not significantly correlated (internalizing: r = 0.10; externalizing: r = 0.24, p's > 0.1). SRI score at baseline (mean = 80.5 ± 7.4) significantly predicted YSR internalizing scores (mean = 42 ± 9) at the 2-year follow up ($t(26) = 2.57$, $p = 0.016$) but not externalizing scores (mean = 44.8 ± 10.3, $t(26) = .78$, $p = 0.44$).

Conclusion: We observed that sleep regularity was associated with internalizing symptoms two years later; however, the association was not in the expected direction: higher SRI was correlated with increased YSR internalizing scores at the 2-year follow-up. As most participants were in a healthy range for YSR scores at both assessments, a possible explanation for this finding is that those with higher SRIs have greater self-awareness in assessing their internal feelings. Future work will examine SRI values and YSR in this sample across 6 assessments acquired at 6-month intervals.

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SUBJECTIVE SLEEP QUALITY IS ASSOCIATED WITH THE REGULATION OF POSITIVE EMOTIONS

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Introduction: Sleep disturbances have been associated with emotion regulation difficulties, which in turn predicts the onset and maintenance of mental health disorders. However, research has primarily focused on the regulation of negative emotions. Associations between sleep and positive emotion regulation strategies are unknown. The current research examined relationships between subjective sleep disturbances (Study 1 and Study 2), objective sleep (Study 2), and positive emotion regulation strategies, including strategies that enhance or maintain positive emotions (i.e., savoring) and strategies that reduce positive emotion (i.e., dampening).

Methods: In Study 1, participants (N = 388, ages 18–64 years, 65% female) completed the Pittsburgh Sleep Quality Index and the Responses to Positive Affect questionnaire to assess their positive emotion regulation strategy use, which consists of three subscales (emotion-focused savoring, self-focused savoring, and dampening). Participants in Study 2 (N = 59, ages 18–30 years, 84% female) completed the Pittsburgh Sleep Quality Index, the Responses to Positive Affect questionnaire, and wore an actigraph for one week.

Results: In Study 1, greater subjective sleep disturbances were associated with increased dampening ($\beta = .45$, $B = .45$, $SE = .05$, 95% C.I. = .35, .55, $p < .001$), less emotion-focused savoring ($\beta = -.16$, $B = -.10$, $SE = .03$, 95% C.I. = -.16, -.04, $p < .005$) and less self-focused savoring ($\beta = -.16$, $B = -.08$, $SE = .03$, 95% C.I. = -.13, -.03, $p < .05$). In Study 2, subjective sleep disturbances were associated with greater dampening ($\beta = .31$, $B = .70$, $SE = .32$, 95% C.I. = .07, 1.34, $p < .05$), and marginally less self-focused savoring ($\beta = -.28$, $B = -.82$, $SE = .42$, 95% C.I. = -1.67, .02, $p = .05$). Actigraphy-measured sleep was unrelated to positive emotion regulation. All models adjusted for adjusted for age and gender.

Conclusion: Subjective sleep disturbances are associated with positive emotion regulation strategies, particularly strategies that dampen positive emotional experiences. These findings complement prior associations among sleep and the dysregulation of negative emotions, and suggest that sleep-related positive emotion dysregulation may be one mechanism by which sleep can lead to the development of emotional disorders.

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EFFECTS OF METAMERIC DISPLAY-LIGHT ON ALERTNESS, VIGILANCE AND MELATONIN

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Introduction: Light emitted from visual displays can acutely increase alertness, improve cognitive performance and suppress melatonin in the evening. Here we tested the influence of different melanopic irradiance levels emitted by a metameric display setting on alertness, vigilance and salivary melatonin levels.