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COGNITIVE-BEHAVIORAL THERAPY FOR INSOMNIA ALLEVIATES AND PREVENTS SUICIDAL IDEATION.

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Introduction: Patients with insomnia disorder are at increased risk for suicidal thoughts and behaviors. Early evidence suggests that insomnia therapeutics may reduce suicidal ideation (SI). However, the role of digital insomnia therapeutics in both the alleviation and prevention of SI remains unclear.

Methods: A total of 658 community adults with DSM-5 insomnia disorder enrolled into a single-site RCT evaluating the efficacy of digital cognitive behavioral therapy for insomnia (CBTI) relative to attention control. Before treatment, 126 patients endorsed SI, whereas 532 patients denied SI. First, we tested whether CBTI can reduce SI in patients with baseline SI. Second, we tested whether CBTI reduces risk for SI development in those without baseline SI.

Results: Among those with baseline SI, just 30.0% of CBTI patients reported SI after treatment, which was lower than the 54.5% of controls with posttreatment SI (OR=2.81, $p=.006$). Among those without baseline SI, CBTI did not reduce risk for developing SI after treatment ($p=.681$). However, a multivariate logit model regression odds for SI onto condition ($p=.140$) and posttreatment remission status (OR=5.68, $p=.007$) indicated that patients who remitted from insomnia exhibited a reduction in SI risk. Importantly, CBTI was associated with a 6.29 odds increase of insomnia remission relative to control. PRODClin estimation of the indirect effect indicated that CBTI prevents SI, but that the effect is fully mediated by the extent to which CBTI produces insomnia remission ($\alpha\beta=-3.13=5$, 95% CI=-5.28, -0.96).

Conclusion: Digital CBTI reduces risk for SI development in insomnia patients without pretreatment SI. These data support a role for digital insomnia therapeutics in SI prevention in this high-risk patient population. Moreover, digital CBTI reduces SI in insomnia patients with SI. These data indicate that digital CBTI can alleviate SI, but it possible that adjunct treatment directly targeting SI may enhance suicide risk reduction.

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SMOKING AND PERCEIVED STRESS: EXAMINING ASSOCIATIONS WITH SUBJECTIVE SYMPTOMS OF OBSTRUCTIVE SLEEP APNEA THROUGH PARALLEL MEDIATION ANALYSES

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Introduction: Cigarette smoking is known to have a negative effect on individuals' sleep quality. Specifically, evidence shows that smoking can exacerbate sleep disorders such as obstructive sleep apnea (OSA) by increasing irritation and inflammation of the upper respiratory conducts. Furthermore, previous research highlights a complex bidirectional positive association between cigarette smoking and perceived stress. Sleep quality may be an important aspect intervening in the association between smoking and perceived stress, given that individuals who report high stress also

report more sleeping issues and increased risk for OSA. Further research is needed to elucidate the impact of smoking and OSA on perceived stress.

Methods: The present cross-sectional survey of N=459 (75.8% female; 60.3% non-Hispanic White) current smokers and non-smokers investigated the associations between smoking status and perceived stress through the indirect effects of subjective OSA symptoms. A parallel mediation analysis using PROCESS Macro Model 4 was conducted with three mediators: risk for OSA based on subjective symptoms (assessed using the STOP portion of the STOP-BANG questionnaire), average sleep propensity (evaluated using the Epworth Sleepiness Scale), and overall subjective sleep quality (assessed with the Pittsburgh Sleep Quality Index). Race, sex, employment, and income were added to the model as covariates.

Results: Analyses supported a significant indirect effect of risk for OSA based on subjective symptoms (B = -0.55, 95% CI [-1.07, -0.09]) and overall subjective sleep quality (B = -1.39, 95% CI [-2.16, -0.74]) on the relationship between smoking status and perceived stress. However, average sleep propensity was not found to mediate this association (B = -0.09, 95% CI [-0.45, 0.21]). The direct effect of smoking status on perceived stress was also not statistically significant (B = 0.06, $t = 0.09$, $p = 0.93$).

Conclusion: Findings illustrate that smokers tend to be at greater risk for OSA and overall report worse sleep quality, which in turn increases their reported levels of perceived stress. Further research is necessary to understand possible demographics-based differences behind these findings as well as potential clinical implications.

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IMPROVING PSYCHOLOGICAL DISTRESS FOR BETTER SLEEP DURING THE COVID-19 PANDEMIC: ANALYSES OF DATA FROM A PILOT RANDOMIZED CONTROLLED TRIAL

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Introduction: Psychological distress has been associated with sleep problems. Emerging evidence suggests positive psychological well-being is associated with better sleep. However, most of these studies are cross-sectional and do not provide information on the effect that changes in psychological outcomes have on sleep. The aim of this secondary analysis was to test whether changes in distress and well-being following a 7-week intervention to improve sleep and mental health were associated with changes in sleep among adults reporting poor sleep quality (Pittsburgh Sleep Quality Index [PSQI]>5) and moderate distress (Perceived Stress Scale [PSS]≥14) during the COVID-19 pandemic.

Methods: Thirty individuals (age 40.7±12.9y, 80% female, 50% racial/ethnic minority) completed a pilot study testing a well-being and sleep hygiene intervention vs. sleep hygiene alone. Questionnaires were administered at baseline and post-intervention to assess distress (PSS and the Symptom Questionnaire), well-being (Psychological Well-Being scales), and sleep (PSQI and Insomnia Severity Index). A sleep diary was administered to collect information on total sleep time (TST), variability in TST, sleep onset latency, wake time after sleep onset, bedtime, and variability in bedtime. Change scores were calculated for each variable as the difference between post-intervention and baseline. Separate linear regression models were estimated with psychological variables as predictors and sleep variables as outcomes. Analyses were adjusted for intervention group, baseline scores of predictors and outcomes, age, and sex.