

Conclusion: An unintended effect of the switch to online learning may have been affording adolescents the opportunity to obtain longer and more regular sleep. Understanding the impact of these changed sleep behaviors on daytime functioning, academic performance, and health outcomes is particularly urgent as schools plan for the remainder of the academic year and eventual return to in-person learning.

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COVID-19 INSTRUCTION STYLE (IN-PERSON, VIRTUAL, HYBRID), SCHOOL START TIMES, AND SLEEP IN A LARGE NATIONWIDE SAMPLE OF ADOLESCENTS

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Introduction: The COVID-19 pandemic significantly disrupted how and when adolescents attended school. This analysis used data from the Nationwide Education and Sleep in TEens During COVID (NESTED) study to examine the association of instructional format (in-person, virtual, hybrid), school start times, and sleep in a large diverse sample of adolescents from across the U.S.

Methods: In October/November 2020, 5346 nationally representative students (grades 6–12, 49.8% female, 30.6% non-White) completed online surveys. For each weekday, participants identified if they attended school in person (IP), online-scheduled synchronous classes (O/S), online-no scheduled classes (asynchronous, O/A), or no school. Students reported school start times for IP or O/S days, and bedtimes (BT) and wake times (WT) for each applicable school type and weekends/no school days (WE). Sleep opportunity (SlpOpp, total sleep time proxy) was calculated from BT and WT. Night-to-night sleep variability was calculated with mean square successive differences.

Results: Significant differences for teens' sleep across instructional formats were found for all three sleep variables. With scheduled instructional formats (IP and O/S), students reported earlier BT (IP=10:54pm, O/S=11:24pm, O/A=11:36pm, WE=12:30am), earlier WT (IP=6:18am, O/S=7:36am, O/A=8:48am, WE=9:36am), and shorter SlpOpp (IP=7.4h, O/S=8.2h, O/A=9.2h, WE=9.2h). Small differences in BT, but large differences in WT were found, based on school start times, with significantly later wake times associated with later start times. Students also reported later WT on O/S days vs. IP days, even with the same start times. Overall, more students reported obtaining sufficient SlpOpp (>8h) for O/S vs. IP format (IP=40.0%, O/S=58.8%); when school started at/after 8:30am, sufficient SlpOpp was even more common (IP=52.7%, O/S=72.7%). Greater night-to-night variability was found for WT and SlpOpp for students with hybrid schedules with >1 day IP and >1 day online vs virtual schedules (O/S and O/A only), with no differences in BT variability reported between groups.

Conclusion: This large study of diverse adolescents from across the U.S. found scheduled school start times were associated with early wake times and shorter sleep opportunity, with greatest variability for hybrid instruction. Study results may be useful for educators and policy makers who are considering what education will look like post-pandemic.

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AGE IS ONLY A NUMBER: TREATMENT MODALITY PREFERENCES IN A RANDOMIZED CONTROLLED TRIAL OF CBTI IN OLDER ADULTS

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Introduction: Use of telemedicine platforms for conducting CBTI has the potential to reach more patients than in person treatment alone. While CBTI has been shown to be effective in older adults, questions about proficiency with technology and preference for treatment modality have not been addressed.

Methods: Baseline data from participants in the RCT of the Effectiveness of Stepped-Care Sleep Therapy In General Practice (RESTING) study were used. Analyses compared CBTI treatment modality preference (in person, online [video platform], no preference) across the following variables: insomnia severity (Insomnia Severity Index; ISI), depression (Geriatric Depression Scale; GDS), cognitive functioning (telephone-based cognitive screen) and internet proficiency (IP; assessing comfort with and frequency of internet use). Data collected prior to the pandemic-shut down (March 2020) were utilized for the primary analysis of treatment preference; n=71, mean age = 62.5 (SD = 8.1); 64.8% female; treatment preferences: in person (33.8%), no preference (25.4%), online (40.8%). A secondary analysis compared IP data from participants with baseline data from pre-pandemic (Nov 2019-Feb 2020, n=71), early pandemic (March-June 2020, n=28), and late pandemic (the most recent four months of enrollment, July 2020-Nov 2020, n=40) periods.

Results: Pre-pandemic, age was not significantly associated with treatment modality preference, nor any baseline clinical characteristics or demographic variables (p's > .01). Only 'comfort' and 'comfort+frequency' scores from the internet proficiency measure differed significantly between treatment preference groups (p's < .002). Post-hoc analyses revealed the online group had significantly higher comfort and comfort+frequency scores than the in person group (p's < .003). Comparing data from pre-pandemic, early pandemic, and late pandemic, frequency of internet use and comfort+frequency with internet use differed across groups (p's < .004). Post-hoc comparisons revealed frequency of internet use scores were higher in the late pandemic compared to pre-pandemic (p=.003).

Conclusion: These findings suggest that comfort using technology, but not age or clinical characteristics, is associated with treatment modality preference for patients with insomnia who are enrolled in a technology-based clinical trial of CBTI. As proficiency in use of technology increases, for example, during and following the pandemic, one can expect that telemedicine will be an increasingly viable approach to providing CBTI among older adults.

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IMPACT OF REMOTE CONTINUOUS POSITIVE AIRWAY PRESSURE SET-UP ON TREATMENT USAGE AND EFFECTIVENESS

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Introduction: Initiating treatment with continuous positive airway pressure (CPAP) traditionally relies on in-person visits with trained