Sleep-Related Cannabis Expectancies Questionnaire (SR-CEQ): Replication and Psychometric Validation among College Students using Cannabis for Sleep Aid

Aubriana A. Schwarz, Patricia A. Goodhines, Amelia V. Wedel, Lisa R. LaRowe, Aesoon Park
Department of Psychology, Syracuse University

BACKGROUND

- Cannabis is commonly used to aid sleep among college students
- Although cannabis outcome expectancies have been associated with the progression of cannabis use, sleep-related expectancies have not been included in widely-used cannabis expectancy measures
- This gap was remedied by the Sleep-Related Cannabis Expectancies Questionnaire (SR-CEQ; Goodhines et al., 2020)
- The SR-CEQ was developed and initial evidence for its 2-factor structure was obtained in a general college sample (including non-cannabis users)
- However, the SR-CEQ’s associations with sleep and cannabis use behaviors among cannabis sleep aid users remains unknown

STUDY AIMS

- Among college students using cannabis for sleep aid:
  - Replicate the previous 2-factor structure
  - Test construct and concurrent validity of the SR-CEQ

METHOD

- Participants & Procedure: N = 89 college students (M_age = 19.92 [SD = 1.19; range = 18-22]; 66% female; 72% White, 12% Multiracial, 7% Asian, 5% Black or African-American, 1% self-reported Other, and 3% did not disclose; 14% Hispanic/Latinx)
- Online cross-sectional survey of sleep and substance use behaviors

- Measures
  - Sleep-Related Cannabis Expectancy Questionnaire (SR-CEQ): 12 items assessed cannabis-related sleep expectancies for same-night sleep (i.e., quality, duration, onset latency, and nocturnal wakings) and associated diurnal functional impairment (i.e., sleepiness and difficulties with concentration and carrying out tasks); positive and negative subscale scores used for analysis (Goodhines et al., 2020)
  - Sleep: 7-item Insomnia Severity Index (B凱tten, Venero, & Morris,2012); 16-item Dysfunctional Beliefs About Sleep Scale (Morin et al., 1993); 10-item Pittsburgh Sleep Quality Index (B凱yse et al., 1989)

- Data Analytic Strategies
  - Descriptive statistics were completed using SPSS Ver. 23 (IBM Corp. 2016) and factor analyses were completed using MPlus Ver. 8 (Muthen and Muthen 2012).
  - The confirmatory factor analysis (CFA) replicated the 2-factor structure (Positive and Negative Sleep-Related Cannabis Expectancies)
  - Bivariate correlations tested associations with related constructs (sleep and cannabis use behaviors/beliefs), and independent-samples t-tests further explicad relevant group differences

KEY FINDINGS

- After dropping item 5 (κ<.40), 2-factor model replication showed good fit to the data

  - POSITIVE sleep-related cannabis expectancies:
    - were associated with dysfunctional beliefs about sleep but not insomnia symptoms, poor sleep quality, or frequencies of cannabis use
    - were greater among students who used cannabis more frequently in general
  - NEGATIVE sleep-related cannabis expectancies:
    - were not associated with any cannabis or sleep variables assessed
    - were marginally lower among students with greater frequency of general cannabis use and cannabis use for sleep aid
    - were greater among male (versus female) students

DISCUSSION

- Results suggest that college students using cannabis for sleep aid may have less negative sleep-related expectancies about sleep
- Positive sleep-related cannabis expectancies were associated with dysfunctional beliefs about sleep, but not sleep behaviors or cannabis use
- Current novel findings extend existing knowledge of general non-sleep related cannabis expectancies among cannabis users in terms of cannabis use correlates
- Findings can help identify at-risk students and modifiable risk factors that can be targeted to minimize harm with cannabis sleep aid use

This research was supported by NIH grants R01DA027677 awarded to Aesoon Park and F31 DA050435 awarded to Patricia A. Goodhines. Correspondence regarding this research may be directed to Patricia A. Goodhines at pagodhi@syr.edu.