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**Introduction:** Anorexia nervosa is a mental health disorder characterized by abnormal eating patterns, severe self-induced weight loss, intense fear of weight gain and a disturbed body perception. Reduced sleep quality and fragmented sleep might be a part of the complex presentation of behaviors and complications of anorexia nervosa. To our knowledge, this study is the first examining sleep patterns in patients with anorexia nervosa in their natural environment using accelerometers. As most patients with anorexia nervosa receive outpatient treatment, knowledge about sleep patterns in their home environment is of importance, as behaviors in in-patient treatment to a larger degree might depend on department routines. The aim of this study was to compare sleep habits in patients with anorexia nervosa to healthy controls, and to assess associations between sleep habits in patients with anorexia nervosa and clinical symptoms.
**Materials and methods:** This study had a case-control design assessing patients prior to starting outpatient treatment. We included 20 female patients with anorexia nervosa (median: 19.5 years old and Body Mass Index (BMI) 16.7) and 23 age matched female healthy controls (median: 19 years old and BMI 22.9). Sleep patterns were measured objectively by accelerometer (Philips Actiwatch2) for seven consecutive days. Mean week results were used in non-parametric statistical analyses. The severity of eating disorder symptoms and psychosocial impairment associated with eating disorders were evaluated using the Eating Disorder Examination Questionnaire (EDE-Q) and the Clinical Impairment Assessment (CIA).
**Results:** There were no differences between patients and healthy controls (median( IQR)) regarding; sleep onset time (00:19 (2:07) vs 00:33 (1:38)), sleep offset time (07:59 (2:05) vs 08:16 (1:16)), mid-sleep time (04:04 (1:48) vs 04:23 (1:22)), sleep duration (409 (92) vs 452 (64) minutes per night) or number of wake up periods >5 minutes after sleep onset (0.93(1) vs 0.50(1) per night). However, patients with anorexia nervosa had a larger variability in sleep habits than healthy controls as shown by larger IQR, more wake-nights (in total 6 nights within 4 patients vs 0 nights in healthy controls) and longer wake-up periods after sleep onset (9 (32) vs 6 (1) minutes per wake-up lasting over 5 minutes, $p$=0.012). In patients with anorexia nervosa, EDE-Q global score was positively correlated with mean duration of wake periods >5 minutes after sleep onset (rho=0.484, $p$=0.036). CIA was positively correlated with sleep onset (rho=0.487, $p$=0.029), sleep offset (rho=0.448, $p$=0.048) and mid-sleep time (rho=0.524, $p$=0.018).
**Conclusion:** This study finds sleep duration and timing in patients with anorexia nervosa living at home and healthy controls to be similar. However, the patients show more variability in sleep patterns and longer wake periods during the night. The severity of eating disorder (symptoms and psychosocial impairment) is associated with later sleep onset and offset time and longer wake up periods after sleep onset. Due to a small sample size findings need to be interpreted with caution.
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## SLEEP IN PEOPLE WITH CURRENT AND PAST EATING DISORDERS DURING THE COVID-19 PANDEMIC

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**Introduction:** The COVID-19 pandemic and related containment measures impacted several domains of individuals' functioning – one of them was sleep patterns. While difficulties were present in the general population, individuals with current or past psychological disorders were particularly vulnerable. Individuals with eating disorders are prone to experiencing sleep disturbances; however, no studies have investigated how the pandemic affected their sleep. The objective of this study was to compare subjective sleep disturbances before and during the COVID-19 pandemic among three groups: current eating disorder, history of an eating disorder, and no history of psychiatric diagnoses.
**Materials and Methods:** Between April 3 and June 23, 2020, Canadians completed an online survey (subsample in present study: n = 1042, mean age = 42.34 ± 15.63, range: 17-81, 92% female). Two clinical groups were included: individuals reporting a current eating disorder (ED; n = 69) and individuals reporting a history of an ED (n=129). ED diagnoses included AN, BN and BED. A third (control) group comprised those without current or previous psychiatric diagnoses (n = 844). Participants completed the PSQI (sleep), GAD-7 (anxiety) and QIDS-SR16 (depression) for two time references: (1) retrospectively for the month before the pandemic started, and (2) during the pandemic. To assess changes in sleep disturbances (total PSQI score), a 2 (time: before and during the pandemic) X 3 (groups: current ED, history of ED, control) ANOVA was conducted. A second adjusted ANCOVA model was computed, with age, sex, anxiety, and depression symptoms as covariates.
**Results:** A significant interaction between time and group status $F(2, 1039 = 4.58$, $p = .010)$ was found in the unadjusted model. All three groups reported a worsening in sleep disturbances from before to during the pandemic, but this worsening was more pronounced in the current ED group, followed by those with a history of ED and those without any psychiatric history (+1.51, +1.02, +.58, respectively; all $p < .001$). A significant interaction was also found in the adjusted model ($F(2, 971 = 6.87$, $p = .011$) and a similar profile was observed. Again, all three groups reported a worsening of sleep disturbance from before to during the pandemic ($p < .001$). In the adjusted model, those with a current ED reported a higher relative change (+1.72) than those with a history of an ED (+1.20) and those with no ED (+52).
**Conclusions:** Whether individuals had a current ED, history of an ED, or no psychiatric history, subjective sleep patterns were negatively impacted by the onset of the pandemic. Even when controlling for anxiety and depression, individuals with a past ED reported a more notable worsening in sleep disturbance than those with no psychiatric history – suggesting that even after recovery, sleep patterns may not return to baseline. Whether these results can be explained by a specific sleep variable remains to be determined. Nonetheless, findings highlight the importance of identifying and treating sleep disturbances in contexts of potentially heightened stress for all individuals, but particularly for those with current or previous mental health disorders, such as EDs.

## SLEEP PROFILE AND CANNABIS USE IN WOMEN – AN ONLINE SURVEY

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**Introduction:** Women usually present more sleep complaints than men, which interfere with daily activities and decrease quality of life. A significant share of the female population routinely uses sleeping aids of different types (including over the counter, prescribed and illicit drugs) to overcome these problems. Recently, cannabis use has been proposed as an adjuvant therapy for sleep complaints, however recent literature is scarce and controversial. Some studies show a reduced sleep quality among cannabis users, while others demonstrate some sleep-inducing effects. Evaluating the effects of cannabis use on sleep could be important from a public health perspective. Thus, this project aimed to evaluate the association of cannabis use and sleep characteristics among women.
**Materials and Methods:** The initial sample comprised 2,055 women of reproductive age, from 18 to 40 years, who filled up an online questionnaire between 2016 and 2017, about sociodemographic data, drug use, and sleep characteristics. Insomnia symptoms were evaluated using the Insomnia Severity Index (ISI) and individuals were categorized according to symptoms severity (no, mild, moderate and severe). Excessive daytime sleepiness (EDS) was analyzed by the Epworth Sleepiness Scale (ESS). Sleep Efficiency (SE) was calculated based on self-reported bedtime, awakening time and total sleep time (TST). Cannabis use was considered according to the self-reported use pattern in the last 3 months and two groups were compared in this study: daily/almost daily use and no use. The effects of cannabis use on ISI and ESS score, TST and SE were compared