



ELSEVIER

Contents lists available at ScienceDirect

Addictive Behaviors

journal homepage: www.elsevier.com/locate/addictbeh

Short Communication

Daily-level associations between PTSD and cannabis use among young sexual minority women



Emily R. Dworkin*, Debra Kaysen, Michele Bedard-Gilligan, Isaac C. Rhew, Christine M. Lee

University of Washington, 1100 NE 45th Street, Suite 300, UW Box 354944, Seattle, WA 98195, United States

HIGHLIGHTS

- Young trauma-exposed sexual minority women were assessed over two years.
- Daily data was collected regarding cannabis use and PTSD symptoms.
- Higher mean PTSD symptoms were associated with daily cannabis use.
- Daily fluctuations in PTSD symptoms were not associated with cannabis use.

ARTICLE INFO

Keywords:

Marijuana
Post-traumatic stress disorder
Substance use
Sexual orientation
Daily diary

ABSTRACT

Introduction: Sexual minority women have elevated trauma exposure and prevalence of posttraumatic stress disorder (PTSD) compared to heterosexual women and they are also more likely to use cannabis, although no research has examined relationships between PTSD and cannabis use in this population. Daily-level methodologies are necessary to examine proximal associations between PTSD and use.

Methods: This study included 90 trauma-exposed young adult women who identified as sexual minorities (34.4% identified as lesbian and 48.9% identified as bisexual) and evaluated daily-level associations between their PTSD symptoms and cannabis use. Participants were assessed at two measurement waves, one year apart, each consisting of 14 consecutive daily assessments.

Results: Cannabis use occurred on 22.8% of the days. Results from generalized linear mixed effects models showed that a person's mean level of PTSD symptom severity across days was strongly associated with same-day likelihood of cannabis use ($OR = 2.67$ for 1 SD increase in PTSD score; $p < 0.001$). However, daily deviation from one's average PTSD score was not associated with cannabis use on the same day.

Conclusions: Findings suggest that PTSD severity may confer general risk for cannabis use, rather than being a state-dependent risk factor.

1. Introduction

High rates of trauma exposure (Roberts, Austin, Corliss, Vander Morris, & Koenen, 2010; Rothman, Exner, & Baughman, 2011) and posttraumatic stress disorder (PTSD) symptoms (Heidt, Marx, & Gold, 2005; Hershberger & D'Augelli, 1995; Hughes, Johnson, Wilsnack, & Szalacha, 2007; Poteat, Aragon, Espelage, & Koenig, 2009) have been observed among sexual minority women (SMW; i.e., lesbians, bisexual women, and other women who partner with women). This is concerning given evidence that PTSD is associated with increased risk for substance use, including cannabis, in the general population (Cogle, Bonn-Miller, Vujanovic, Zvolensky, & Hawkins, 2011; Kevorkian et al., 2015) and in the transition from adolescence to

adulthood (Cornelius et al., 2010). Indeed, SMW also report high rates of cannabis use (Marshal et al., 2008; McCabe, Bostwick, Hughes, West, & Boyd, 2010; Trocki, Drabble, & Midanik, 2009).

In general population samples, associations between substance abuse and PTSD symptoms have been explained via self-medication theory, which asserts that psychological distress results in escalating substance use through a reciprocal pattern of negative reinforcement, wherein substance use alleviates distress temporarily but then results in future increased substance use (Allan, 1995; Kushner, Abrams, & Borchardt, 2000). Over time, these patterns lead to the development of a substance use disorder (Chilcoat & Breslau, 1998; Simpson, 2003; Stewart, Conrod, Pihl, & Dongier, 1999). Although this theory is widely accepted, it has been tested primarily in relation to

* Corresponding author.

E-mail address: edworkin@uw.edu (E.R. Dworkin).

alcohol, and thus fails to address diverse effects of different substances, like cannabis, on PTSD symptoms. To elucidate mechanism of co-occurrence, daily diary studies are needed to examine whether day-to-day symptom variability is associated with the decision to use cannabis at the event-level, as opposed to merely observing the association between greater symptoms and greater use. Further, given that the leading explanatory theory for minority health disparities proposes that stressors associated with minority status lead to negative physical and mental health outcomes (Meyer, 2003, 2013), it is important to conduct research within specific minority groups like SMW to understand the unique processes that could contribute to observed disparities. However, to date, no research has examined associations between PTSD and cannabis use in this population.

The current study addresses these gaps in the literature by using daily diary methodology from a national longitudinal web-based study of SMW's health (Kaysen et al., 2014; Litt, Lewis, Rhew, Hodge, & Kaysen, 2015) to evaluate whether within-person deviations in PTSD at the daily-level and overall between-person levels of PTSD, both collected at the daily-level, are associated with daily cannabis use among young SMW. We hypothesized that: 1) SMW would be more likely to use cannabis on days in which they experienced higher PTSD symptom severity relative to their typical level of symptoms and 2) SMW with higher overall PTSD symptom severity would be more likely to use cannabis on a given day.

2. Method

2.1. Procedures and participants

Participants for this analysis included 90 women who had been assigned female sex at birth. At baseline, the sample ranged in age from 18 to 25 ($M = 21.7$, $SD = 2.1$). Most participants were White (76.1%), with others identifying their race as African American (12.5%), Asian American (3.4%), or some other race (8.0%); 10.2% identified their ethnicity as Latinx. Participants described their sexual identity as lesbian (34.4%), gay (1.1%), bisexual (48.9%), queer (7.8%), two-spirit (1.1%), questioning (3.3%), or some other sexual orientation (3.3%).

All procedures were approved by the University of Washington Institutional Review Board and a Federal Certificate of Confidentiality was obtained. Advertisements for a study on women's health were placed nationally on Craigslist and Facebook. Facebook advertisements were shown to women within the target age range (18–25) who indicated in their Facebook profile that they were interested in same-sex relationships. Women who agreed to participate were directed to a screening assessment to determine eligibility including: 1) U.S. residency, 2) valid e-mail address, 3) age 18–25, and 4) current self-identification as lesbian/bisexual. Eligible participants were sent an email invitation to participate and a link to the online informed consent statement. Participants were directed to the baseline assessment upon provision of informed consent. The broader study included a baseline assessment and three annual web-based surveys. Daily diary monitoring data used in the current analyses were collected from a random subsample of 114 participants who reported consuming at least 2 drinks during a single drinking occasion at least 7 times in the past 30 days. This component of the study involved 5–10 min twice-daily surveys for 14 consecutive days annually; the morning surveys assessed cannabis use and PTSD symptoms and were thus used for the current study. Data from the 24-month and 36-month waves of daily assessments (i.e., waves 3 and 4), which were the years in which cannabis use and PTSD symptoms were assessed, were used for the present study. Participants in daily diary component were paid \$5 for each daily assessment completed; they received a \$10 bonus if they completed all 14 assessments per wave. Ninety participants provided data on study variables for (at least) the 24-month wave and were thus included in this analysis.

2.2. Measures

2.2.1. Demographics

Standard items were used to assess socio-demographic information (e.g., age, income, race). To assess sexual orientation, participants were asked, "Understanding that sexual identity can be complex, which ONE category best describes your SEXUAL IDENTITY now?" Response options were lesbian, gay, bisexual, queer, two-spirit, straight/heterosexual, questioning, other, or prefer not to answer.

2.2.2. Cannabis use

Each morning, participants were asked, "Yesterday, did you use marijuana?" Dichotomous (yes or no) response options were used.

2.2.3. Trauma exposure

The Traumatic Life Experiences Questionnaire (TLEQ; Kubany et al., 2000) was used to assess the number of lifetime traumatic events (of 22 possible) that participants experienced. The measure was re-administered annually.

2.2.4. PTSD symptoms

Each day, a 20-item version of the PTSD Checklist (PCL; Weathers, Huska, & Keane, 1991) was administered. The scale was adapted for this study to parallel the DSM-5 diagnostic criteria for PTSD and to assess how the participant felt since yesterday, as opposed to in the last month. Items were assessed in relation to "the stressful life experience" using a 5-point Likert scale from 1 = Not at All to 5 = Extremely (e.g., "Since yesterday, how bothered were you by repeated, disturbing dreams of the stressful life experience?").

2.3. Analytic plan

We used generalized linear mixed models to examine the association between PTSD symptoms and cannabis use. A logit form of the model was specified and odds ratios (ORs) were estimated for any cannabis use on a given day. We included two PTSD variables to disentangle between- and within-person effects of PTSD: 1) the time-fixed person-mean (i.e., the mean of a participant's daily PTSD scores for the 14 days of monitoring completed at each of the two waves used in this study), and 2) the time-varying daily deviation from one's time-fixed mean at each wave. Thus, each participant had up to two values (one for each wave) for person-mean PTSD and up to 28 values (one for each assessment day completed) representing a daily deviation from their wave mean. Measurement period (Year 3 vs. 4) was included as a covariate. Models were performed in R version 2.14 (R Development Core Team, 2008) using the lme4 package (Bates, Mächler, Bolker, & Walker, 2014).

3. Results

3.1. Sample characteristics

Ninety SMW completed 1345 daily observations for an average of 14.94 observations per participant (out of a possible 28 observations). Participants reported an average of 8.1 different traumatic events in their lifetime at wave 1. By wave 3, all participants reported lifetime trauma exposure and 21.59% met screening criteria for past-month PTSD (PCL score $M = 34.57$, $SD = 16.72$). Daily PTSD symptoms showed substantial variability within participants; the average standard deviation of scores for a given person from day to day was 13.2. Cannabis use occurred on 22.4% of daily monitoring days, for an average of 8.34 days over the days of observation.

Consistent with hypotheses, person-mean PTSD score across days was associated with daily likelihood of cannabis use (Table 1). That is, women with higher overall daily PTSD scores across time had a higher likelihood of using cannabis on any given day. Inconsistent with

Download English Version:

<https://daneshyari.com/en/article/5037713>

Download Persian Version:

<https://daneshyari.com/article/5037713>

[Daneshyari.com](https://daneshyari.com)