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Factors associated with having a medical marijuana card among Veterans with recent substance use in VA outpatient treatment

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HIGHLIGHTS

- Among Veterans with a medical marijuana card, most report using it for chronic pain
- PTSD, sleep problems, and pain level are associated with having a medical marijuana card
- Assessing medical marijuana use may be important among Veterans in SUD treatment

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ABSTRACT

Psychiatric symptoms, somatic problems, and co-occurring substance use have been associated with medical marijuana consumption among civilian patients with substance use disorders. It is possible that these factors may impact Veterans' ability to engage in or adhere to mental health and substance use disorder treatment. Therefore, we examined whether psychiatric functioning, substance use, and somatic problems were associated with medical marijuana use among Veterans receiving substance use disorder and/or mental health treatment. Participants (n = 841) completed screening measures for a randomized controlled trial and 67 (8%) reported that they had a current medical marijuana card. Most of these participants (78%) reported using marijuana to treat severe/chronic pain. Significant bivariate differences revealed that, compared to participants without a medical marijuana card, those with a card were more likely to be in a middle income bracket, unemployed, and they had a significantly higher number of recent days of marijuana use, synthetic marijuana use, and using sedatives prescribed to them. Additionally, a significantly higher proportion of participants with a medical marijuana card scored above the clinical cutoff for posttraumatic stress disorder (PTSD) symptoms, had significantly higher severity of sleep-related problems, and reported a higher level of pain. These findings highlight the co-occurrence of substance use, PTSD symptoms, sleep-related problems, and chronic pain among Veterans who use medical marijuana. Future research should investigate the inter-relationships among medical marijuana use and other clinical issues (e.g., PTSD symptoms, sleep, pain) over time, and potential implications of medical marijuana use on treatment engagement and response.

1. Introduction

The efficacy and use of medical marijuana remains controversial. However, emerging evidence supports the short-term benefits of marijuana on a wide range of symptoms including nausea and vomiting associated with cancer chemotherapy, appetite stimulation in wasting illnesses, chronic pain, neuropathic pain, and spasticity related to multiple sclerosis (Hill, 2015; Volkow, Baler, Compton, & Weiss, 2014). This evidence notwithstanding, many of the conditions for which medical marijuana is approved as a treatment in the United States (US), including Posttraumatic Stress Disorder (PTSD), anxiety, depression, Parkinson's disease, Crohn's disease, and Amyotrophic Lateral Sclerosis,

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have weak or no empirical support (Hill, 2015), and some adverse health effects of recreational marijuana use have been identified (Volkow et al., 2014). Additionally, there is no federal legislation regulating the use or recommendation of medical marijuana in the US, leaving states to decide for what conditions, and under what circumstances medical marijuana can be used or recommended in their jurisdictions (Bestrashniy & Winters, 2015).

The inconsistency between state and federal legislation presents a unique problem for US military Veterans receiving care at Veterans Affairs (VA) medical centers (which are governed by federal legislation). Specifically, those Veterans who live in one of the states (24 at present), or the District of Columbia, where comprehensive medical marijuana programs have been approved at the state level (Maii, 2013; National Conference on State Legislatures, 2016), may obtain certification from a non-VA provider either as a supplement to or in lieu of their VA care. There is also a high prevalence of psychiatric conditions (PTSD in particular) and co-occurring substance use-related problems among Veterans (Bonn-Miller, Bucossi, & Trafton, 2012; Seal et al., 2011; Stecker, Fortney, Owen, McGovern, & Williams, 2010), and evidence suggests that large proportions of Veterans with co-occurring substance use and PTSD drop out of treatment after only one or two sessions (Oliva, Bowe, Harris, & Trafton, 2013). Moreover, it is possible some Veterans using medical marijuana might be less likely to initiate specialty treatment all together at the VA because of perceptions that medical marijuana use will be forbidden.

Given the possibility that Veterans might present for substance use or mental health treatment while concomitantly using medical marijuana, combined with the potential complicating treatment initiation and retention factors noted above, it is crucial to understand the context of medical marijuana use in this population. To the best of our knowledge, there have been no studies evaluating medical marijuana consumption among Veterans receiving VA treatment for substance use or mental health problems. However, recent evaluations of community samples of individuals using marijuana medically or recreationally indicate that most people report consuming the substance to treat chronic pain (Bonn-Miller, Boden, Bucossi, & Babson, 2014; Ilgen et al., 2013; Osborn et al., 2015), and many also report using it as a treatment for PTSD, anxiety, and depression symptoms (Bonn-Miller et al., 2014; Osborn et al., 2015). Additionally, a recent investigation of a community sample of first-time medical marijuana patients revealed that 23% screened positive for PTSD (Bohnert et al., 2014), and another investigation (Ashrafioun, Bohnert, Jannausch, & Ilgen, 2015) found that patients receiving substance use disorder (SUD) treatment and using medical marijuana specifically for pain were significantly younger than patients who did not use medical marijuana. These findings highlight the importance of assessing for background, somatic, and psychiatric factors among medical marijuana patients. Thus, the present exploratory study sought to assess medical marijuana use among *Veterans*, and to evaluate whether medical marijuana use is associated with demographic characteristics, frequency of substance use, and psychiatric functioning among those who present for treatment in outpatient substance use disorder or mental health clinics.

2. Method

2.1. Recruitment & procedure

This study reports on a secondary analysis from screening data collected as part of a randomized controlled trial (RCT) for a substance use and violence prevention intervention conducted in a single VA hospital in the Midwest (screening is complete, but follow-up assessments are ongoing). Veterans who were initiating or receiving treatment (for the first time or after a break in care) at VA outpatient SUD and mental health treatment clinics were screened for the RCT. In order to be eligible for screening, participants had to have recent substance use and be in outpatient SUD or mental health treatment. Patients in treatment were approached and informed of the study and, if interested, provided written informed consent and completed RCT eligibility screening surveys. Exclusion criteria for screening included: an inability to read/speak English, current suicidal ideation, active psychosis, cognitive problems limiting ability to consent, having a legal guardian, insufficient cognitive orientation due to acute substance use, active participation in another intervention study, or residing outside of the study catchment area. The screening survey was designed to be completed in approximately 45–60 min by patient self-report, although research assistants were available to assist participants with reading or vision difficulties. Participants were remunerated $10 in gift cards for completing the screening survey. The present sample included the 841 participants who completed screening surveys for the RCT. All procedures were approved by the local VA's institutional review board.

2.2. Measures

2.2.1. Medical marijuana use

We used two items from Ilgen et al.'s (2013) questionnaire to examine medical marijuana use: 1) "Have you been issued a medical marijuana card?", 2) "If you have been issued a medical marijuana card, which of the following health conditions were you diagnosed with?". We then provided the following list of conditions, from which they could check all that applied to them: severe and chronic pain, severe nausea, severe and persistent muscle spasms, cancer, glaucoma, seizures, Crohn's disease, agitation of Alzheimer's disease, amyotrophic lateral sclerosis, Hepatitis-C, HIV/AIDS, nail patella, cachexia or wasting syndromes, other. This list of conditions was designed to match the conditions for which medical marijuana was approved in the state at the start of study recruitment (June, 2012).

2.2.2. Posttraumatic Stress Disorder Checklist – Civilian (PCL-C)

This 17-item self-report measure assesses PTSD symptoms (e.g., "Repeated, disturbing memories, thoughts, or images of a stressful experience from the past," "Avoid activities or situations because they remind you of a stressful experience from the past"; Gerrity, Corson, & Dobscha, 2007; Weathers, 1996) based on criteria set forth in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV-TR, American Psychiatric Association, 2000). Participants were asked to rate how much these symptoms had bothered them during the past 30 days on a scale from "1 = Not at all" to "5 = Extremely." The recommended cutoff suggesting a PTSD diagnosis is 45 to 50 among Veterans presenting in VA specialty mental health clinics (National Center for PTSD, 2014). We chose to use the conservative cutoff of 50 for the present study. Due to an error in the survey, item 17 (i.e., "Feeling jumpy or easily startled") was not included. Scores were adjusted using mean substitution to account for error. Cronbach's alpha in our sample was 0.95.

2.2.3. Patient Health Questionnaire – 9 (PHQ-9)

This 9-item measure was used to assess symptoms of major depression (e.g., "Little interest or pleasure in doing things," "Feeling down, depressed or hopeless"). Participants were asked to rate how often these symptoms had occurred during the past two weeks on a scale from "0 = Not at all" to "3 = Nearly every day." The PHQ-9 yields a severity score ranging from 0 to 27, with a cutoff score of 10 indicating clinically significant depression (Kroenke, Spitzer, & Williams, 2001). The PHQ-9 has been reported to have good construct validity and reliability as a measure of depressive symptoms in the general population (Martin, Rief, Klaiberg, & Braehler, 2006). Cronbach's alpha in our sample was 0.90.

2.2.4. Generalized Anxiety Disorder – 7 (GAD-7)

This questionnaire measures anxiety symptoms (e.g., "Feeling nervous, anxious, or on edge," "Not being able to stop or control worrying") consistent with the diagnostic criteria in the DSM-IV (Spitzer, Kroenke,