

Regular article

Motivational and mindfulness intervention for young adult female marijuana users

Marcel A. de Dios, (Ph.D.)^{a, b, *}, Debra S. Herman, (Ph.D.)^{a, b}, Willoughby B. Britton, (Ph.D.)^a,
Claire E. Hagerty, (M.S.W.)^b, Bradley J. Anderson, (Ph.D.)^b, Michael D. Stein, (M.D.)^{b, c}

^aDepartment of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University, Providence, RI 02912, USA

^bButler Hospital, General Medicine Research Unit, Providence, RI 02906, USA

^cDepartments of Medicine and Community Health, Warren Alpert Medical School of Brown University, Providence, RI 02912, USA

Received 22 December 2010; received in revised form 29 July 2011; accepted 1 August 2011

Abstract

This pilot study tested the efficacy of a brief intervention using motivational interviewing (MI) plus mindfulness meditation (MM) to reduce marijuana use among young adult females. Thirty-four female marijuana users between the ages of 18 and 29 were randomized to either the intervention group ($n = 22$), consisting of two sessions of MI-MM, or an assessment-only control group ($n = 12$). The participants' marijuana use was assessed at baseline and at 1, 2, and 3 months posttreatment. Fixed-effects regression modeling was used to analyze treatment effects. Participants randomized to the intervention group were found to use marijuana on 6.15 ($z = -2.42, p = .015$), 7.81 ($z = -2.78, p = .005$), and 6.83 ($z = -2.23, p = .026$) fewer days at Months 1, 2, and 3, respectively, than controls. Findings from this pilot study provide preliminary evidence for the feasibility and effectiveness of a brief MI-MM for young adult female marijuana users.

© 2012 Elsevier Inc. All rights reserved.

Keywords: Marijuana; Females; Mindfulness; Motivational enhancement; Anxiety

1. Introduction

Marijuana is the most widely used illicit substance in the United States. In 2009, approximately 6.6% (16.7 million) of Americans older than 12 years reported using marijuana at least once in the past month (Substance Abuse and Mental Health Services Administration [SAMHSA], 2010). Regular marijuana use is associated with respiratory illnesses such as bronchitis, emphysema, and lung infections (Brook, Stimmel, Zhang, & Brook, 2008; Moore, Augustson, Moser, & Budney, 2005; Tashkin, 2005), as well as neurocognitive deficits (Brook et al., 2008; Solowij et al., 2002). The use of marijuana has also been linked with psychosocial problems including occupational absenteeism, work-related accidents (Lehman & Simpson, 1992; Zwerling, Ryan, & Orav, 1990), poor educational achievement (Brook et al., 2008; Fergusson,

Horwood, & Beauvais, 2003; Lynskey & Hall, 2000), and increased likelihood of mental health conditions, including anxiety, depression, and suicidal behavior (Brook et al., 2008; Fergusson, Horwood, & Swain-Campbell, 2002; King et al., 2001). Given these associations and the high prevalence of use, marijuana use represents a significant public health problem.

In 2009, young adults between the ages of 18 and 25 years had the highest rate of marijuana use, with approximately 18.1% reporting use at least once in the past month (SAMHSA, 2010). This rate is a significant increase from the previous 2 years (2007, 16.5%; 2008, 16.4%), indicating an upward trend in marijuana use among young adults. Not surprisingly, marijuana users of this age group have been the focus of research and clinical efforts aimed at understanding, reducing, and treating substance use. However, studies focusing on young adult marijuana users have struggled to recruit women (Fattore, Fadda, & Fratta, 2009). Knowledge regarding marijuana use in this group is important because use is highly prevalent in women between the ages of 18 and 25 years and may pose unique

* Corresponding author. Butler Hospital, Providence, RI 02906, USA.
Tel.: +1 401 455 6645; fax: +1 401 455 6618.

E-mail address: mdedios@butler.org (M.A. de Dios).

risks. In addition to the potential negative consequences of marijuana use noted above, marijuana use among females has also been linked to increased sexual activity, inconsistent condom use, and greater levels of sexual activity while under the influence (De Genna, Cornelius, & Cook, 2007; Poulin, & Graham, 2001). These types of sexually risky behaviors increase a woman's risk for unplanned pregnancies and the contraction of sexually transmitted diseases. Taken together, the risks associated with marijuana use represent a significant threat to the health and well-being of women in the early stages of adulthood.

1.1. Motivational enhancement

Motivational interventions (MIs), with their limited contact time, cost-effectiveness, and client-centered approach, are a promising treatment for marijuana users (Miller & Rollnick, 2002). Moreover, MI has been shown to be particularly effective at reducing marijuana use among adolescents and young adults. In a study of weekly marijuana users between the ages of 16 and 20 years, McCambridge and Strang (2004) demonstrated that a single motivational session significantly reduced marijuana use at 3-month follow-up. In another study testing a brief Marijuana Check-Up, Walker et al. (2006) also found MI decreased marijuana use among 97 adolescents at 3-month follow-up. In a larger trial ($N = 188$) targeting young adult marijuana users with a brief MI, Stephens et al. (2007) found that MI participants had fewer marijuana use days at 12 months (effect size of .45) compared with either a delayed feedback or an educational control condition.

Findings from these studies served as the basis for our recently completed randomized clinical trial of a brief MI for young adult female marijuana users with varying levels of quitting desire (Project MAPLE). In this study, 332 women between the ages of 18 and 24 years were randomized to either a two-session motivationally focused intervention or an assessment-only (AO) condition. Our findings showed that the intervention's effect on marijuana use was not statistically significant at 1 month (odds ratio [OR] = 0.77, $p = .17$), significant at 3 months (OR = 0.53, $p = .01$), and no longer significant at 6 months (OR = .74; $p = .20$). However, among the 61% of participants endorsing any desire to quit using marijuana at baseline, the MI intervention was found to have a significantly greater reductive effect on the likelihood of marijuana use at 1 month (OR = 0.42, $p = .03$), 3 months (OR = 0.31, $p = .02$), and 6 months (OR = 0.35, $p = .03$), indicating that MI provided the greatest overall reduction and sustained reduction for women with a desire to quit (Stein, Hagerty, Herman, Phipps, & Anderson, In Press).

1.2. Anxiety and marijuana use

In a secondary analysis of Project MAPLE (de Dios, Hagerty, et al., 2010), we illustrated the connection between anxiety reduction and marijuana use. We found that 89% of

our sample endorsed at least one symptom of general anxiety disorder (GAD), and among those expressing any desire to quit, 93% reported that they used marijuana to help them relax, 84% to relieve anxiety, and 88% to help them be "calm." Furthermore, these tension reduction and relaxation motives were found to significantly mediate the relationship between GAD symptoms and marijuana use (de Dios, Hagerty, et al., 2010). These findings are consistent with previous studies that have established an association between anxiety disorders and marijuana use (Andrews, Hall, Teeson, & Henderson, 1999; Burns & Teesson, 2002; Grant et al., 2004; Teeson, Hall, Lynskey, & Degenhardt, 2000). Using data from the National Comorbidity Study, Agosti, Nunes, and Levin (2002) showed that individuals meeting criteria for cannabis dependence were twice as likely to also have a comorbid anxiety disorder diagnosis. Studies examining the relationship between marijuana use and anxiety-related symptoms and constructs have also yielded significant associations between marijuana use and agoraphobic cognitions (Bonn-Miller, Zvolensky, Bernstein, & Stickle, 2008), anxiety arousal (Bonn-Miller et al., 2008), affective lability (Simons et al., 2005), negative affect (Zvolensky et al., 2007), worry (Bonn-Miller, Zvolensky, & Bernstein, 2007), and anxiety sensitivity (Buckner et al., 2011). Such findings support the notion that individuals experiencing anxiety symptoms use marijuana as a method for coping (Bonn-Miller et al., 2007).

Given these associations and the results of Project MAPLE, we sought to develop and test an intervention that addressed the phenomenon of marijuana use as a way to relieve anxiety-related symptoms among young adult female marijuana users. Specifically, we blended our Project MAPLE intervention with mindfulness-based components with the aim of providing young women with an alternative for coping with distressing negative affective states.

1.3. Mindfulness-based meditation

Mindfulness-based meditation, which is derived from Buddhist meditation practices, made its first inroads into medical care in the form of mindfulness-based stress reduction (MBSR) in 1979 (Kabat-Zinn, 1990). Today, mindfulness-based approaches have proliferated and include mindfulness-based cognitive therapy (Segal, Williams, & Teasdale, 2002), acceptance and commitment therapy (Hayes, Strosahl, & Wilson, 2003), dialectical behavioral therapy (Linehan, 1993), mindfulness-based relapse prevention (Witkiewitz & Bowen, 2010; Witkiewitz, Marlatt, & Walker, 2005), and mindfulness-based therapeutic community treatment (Marcus & Zgierska, 2009). The basis for mindfulness-based approaches is the cultivation of a nonjudgmental awareness, curiosity, openness, and acceptance of internal and external experiences, with the intended goal of eliciting greater reflection and acceptance, especially with regard to negative affect (Praisman, 2008).

Mindfulness-based approaches have been applied to the treatment of a number of psychological problems including

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات