Drug and Alcohol Dependence 170 (2017) 142–146

Contents lists available at ScienceDirect

Drug and Alcohol Dependence

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

Short communication

Treatment seeking in cannabis dependence: The role of social cognition

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ARTICLE INFO

Article history:
Received 24 August 2016
Received in revised form 4 November 2016
Accepted 4 November 2016
Available online 14 November 2016

Keywords:
Cannabis
Cannabis dependence
Self-efficacy
Expectancies
Treatment initiation
Treatment seeking

ABSTRACT

Background and aims: Relatively few cannabis dependent individuals seek treatment and little is known about the determinants of treatment seeking. Social Cognitive Theory (SCT) provides a useful framework for examining human behaviour and motivation which may be helpful in explaining treatment seeking. This study examined the differences in cannabis outcome expectancies and cannabis refusal self-efficacy between treatment seekers and non-treatment seekers with cannabis dependence.
Design: Non-treatment seekers were referred to an illicit drug diversion program. Treatment seekers commenced an outpatient cannabis treatment program and completed a comprehensive assessment that included measures of cannabis outcome expectancies and refusal self-efficacy.
Setting: A public hospital alcohol and drug outpatient clinic.
Participants: 269 non-treatment seekers and 195 individuals commencing cannabis dependence treatment.
Measurements: The Cannabis Expectancy Questionnaire (CEQ), Cannabis Refusal Self-Efficacy Questionnaire (CRSEQ), Severity of Dependence Scale – Cannabis (SDS-C), General Health Questionnaire (GHQ-28) and Readiness to Change Questionnaire (RTC) were completed.
Findings: Treatment seekers had significantly higher levels of negative cannabis outcome expectancies and significantly lower levels of emotional relief refusal self-efficacy (belief in ability to resist using cannabis when experiencing negative affect) ($ps < 0.001$). Treatment seekers had significantly higher levels of psychological distress and self-perceived cannabis dependence compared to non-treatment seekers ($ps < 0.001$).
Conclusions: High negative cannabis outcome expectancies and low emotional relief refusal self-efficacy may play a key role in motivation to seek treatment.

1. Introduction

Cannabis is the most widely used illicit drug worldwide, with an estimated 2.8–4.5% of the global population using it (Degenhardt and Hall, 2012). Australia is one of the highest cannabis-using nations, with 10.7% of Australians using in the past year. Despite many individuals meeting the criteria for cannabis dependence, few seek formal treatment (Vendetii et al., 2002). A nationally representative study ($N = 49{,}093$) found that only 13% of cannabis-dependent individuals sought formal treatment over the course of their lifetime (Khan et al., 2013). In comparison, approximately 13% of alcohol dependent individuals entered treatment in a given year (Teesson et al., 2006).

In order to better understand why cannabis-dependent individuals present for treatment, it is useful to compare the characteristics and attitudes of treatment-seeking and non-treatment seeking individuals with cannabis dependence. These studies have found several characteristics that differ between these groups. Treatment seekers are more likely to have comorbid mental health problems, experience greater impairment as a result of their cannabis use, and encounter more problems (e.g., withdrawal symptoms) when

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http://dx.doi.org/10.1016/j.drugalcdep.2016.11.005
0376-8716/

attempting to quit cannabis (Agosti and Levin, 2009; Pacek and Vandrey, 2014; van der Pol et al., 2013). They also differ in motivation. Those who do not seek formal treatment are more likely to be concerned about the stigma associated with seeking treatment, and are more likely to believe that treatment is not required in order to reduce their cannabis use (Gates et al., 2012; van der Pol et al., 2013). Vendetii et al., (2002) found that self-perceived cannabis dependence was a more important predictor of treatment initiation than actual level of cannabis-related problems, which were similar between treatment seekers and non-seekers. Subjective factors may play a prominent role in determining who seeks treatment.

Social Cognitive Theory (SCT) provides a useful theoretical framework for understanding the initiation, maintenance and treatment of substance use disorders (Bandura, 1986, 1997, 1999). It highlights the importance of two determinants of behaviour and motivation: outcome expectancies and self-efficacy. Cannabis outcome expectancies refer to an individual's beliefs about the positive or negative effects of using cannabis. Individuals with low levels of negative expectancies are predicted to have lower levels of perceived cannabis dependence and lower motivation to quit or seek formal treatment. On the other hand, individuals with high levels of negative expectancies are predicted to experience more substantial problems with their cannabis use, have greater perceived cannabis dependence and be more motivated to seek formal treatment (Caviness et al., 2013; Connor et al., 2014). High levels of positive cannabis expectancies may also be associated with lower likelihood of treatment seeking, due to a lack of desire to cease use (Bandura, 1999).

Cannabis refusal self-efficacy is an individual's belief in their ability to abstain from using cannabis in a variety of situations. In SCT, self-efficacy influences initiation of coping behaviors in aversive situations and determines how much effort is exerted to achieve a goal (Bandura, 1986, 1997, 1999). Therefore, individuals with high levels of self-efficacy may be more confident in their ability to quit cannabis on their own, and hence not see treatment as necessary. SCT also states that self-efficacy for a given behaviour is diminished when repeated attempts have failed (Bandura, 1986, 1997, 1999).

No studies have compared outcome expectancies and self-efficacy in cannabis dependent persons who are seeking treatment and those who are not. Given the hypothesized importance of motivation for behaviour change, a better understanding of the nature of expectancy in treatment seeking could improve outreach efforts. It is hypothesized that treatment-seekers will have greater negative cannabis outcome expectancies, lower positive expectancies, and lower cannabis refusal-self efficacy than non-treatment seekers. Consistent with past research, we predict that treatment seekers will have higher self-perceived cannabis dependence (Vendetii et al., 2002), greater readiness to change, and more impaired psychological functioning (van der Pol et al., 2013).

2. Method

2.1. Participants and procedures

Data for the treatment-seeking group were obtained from 217 cannabis users who voluntarily attended an outpatient alcohol and drug clinic at a large Australian metropolitan teaching hospital. Treatment involved one-on-one Cognitive-Behavioral Therapy (CBT), comprising five 1-h sessions delivered over six weeks. The treatment goal was abstinence. Treatment was delivered by Masters- or Doctoral-qualified clinical psychologists. Questionnaires were administered at the first session.

Data for the non-treatment seeking group were collected from 680 cannabis users referred for assessment as part of the Queensland Illicit Drug Diversion Initiative (QIDDI). This program is for individuals charged with cannabis-related offences (e.g., possession) and consisted of a two-hour assessment of substance use, psychosocial functioning, and included a motivational interviewing component. Participants attend as an alternative to criminal prosecution. The current study includes only new cases that have not been previously analyzed (Connor et al., 2014, 2011; Young et al., 2012). Human research ethics approval was obtained. Only participants exceeding the Severity of Dependence Scale-Cannabis (Gossop et al., 1995) cut-off for dependence were included (see 2.2.3). The final sample comprised 464 participants – 269 non-treatment seekers and 195 treatment seekers. Demographic characteristics are reported in Table 1. On average, treatment seekers were older than non-treatment seekers ($p < 0.001$) and less likely to have completed high school ($p < 0.001$). Similar differences have been observed in other studies (Agosti and Levin, 2009; Pacek and Vandrey, 2014). The mean Alcohol Use Disorders Identification Test score for non-treatment seekers was 8.32 ($SD = 6.75$), with 17% exceeding the cut-off for likely alcohol dependence (men = 15+, women = 13+; Babor et al., 2001). Treatment seekers had a mean score of 3.41 ($SD = 7.70$), with 10% exceeding the cut-off.

2.2. Measures

2.2.1. Cannabis expectancy questionnaire (CEQ; Connor et al., 2011). The 45-item CEQ was assessed positive and negative cannabis outcome expectancies. The two subscales have excellent internal consistency ($\alpha \geq 0.90$) and the CEQ's two-factor structure and criterion validity have been confirmed in clinical samples (Connor et al., 2011).

2.2.2. Cannabis refusal self-efficacy questionnaire (CRSEQ; Young et al., 2012). The 14-item CRSEQ assessed cannabis refusal self-efficacy. It comprises three subscales: Emotional Relief (six items, e.g., 'When I feel sad'), Opportunistic (five items, e.g., 'When someone offers me a smoke') and Social Facilitation (three items, e.g., 'When I want to feel more accepted by friends'). Internal consistency of the CRSEQ is good-to-excellent ($\alpha = 0.84–0.97$) and the three-factor structure and criterion validity has been established in clinical samples (Young et al., 2012).

2.2.3. Severity of dependence scale – cannabis (SDS-C; Gossop et al., 1995). The SDS-C is a five-item questionnaire that assesses the degree of cannabis dependence. It is sensitive to severity of cannabis dependence (Swift et al., 2000). The cannabis dependence cut-off is 3 (possible range: 0–15; Swift et al., 1998).

2.2.4. Readiness to change questionnaire (RTC; Heather and Rollnick, 1993). The 12-item RTC assessed motivation to reduce cannabis use. Individuals were classified as pre-contemplation, contemplation or action stage. The internal consistency of the RTC is good ($\alpha = 0.73–0.85$) and concurrent and predictive validity has been established (Heather and Rollnick, 1993).

2.2.5. General health questionnaire – 28 (GHQ-28; Goldberg and Williams, 1998). The 28-item version of the GHQ was used to assess recent changes in psychological functioning. It comprises four sub-scales: Somatic Symptoms, Anxiety, Social Dysfunction and Depression. The GHQ is a widely used measure of psychological health and has strong psychometric properties (Goldberg et al., 1997; Wernecke et al., 2000).

3. Results

Forty-two participants had missing data >50% of variables, and were excluded from the analyses, leaving 464 cases. There was