Self-Determination Theory Correlates of Cannabis-Related Outcomes among a Large, Multi-Site Sample of College Students

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INTRODUCTION

- Self-determination theory (SDT; Ryan & Deci, 2000) is a general theory of motivation that has been applied to understand why people engage in healthy behaviors.
- More self-determined reasons for engaging in healthy behaviors is associated with an increased likelihood of initiation and persistence (Ryan et al., 2007).
- Greater autonomous functioning and satisfaction of the psychological needs for autonomy, competence, and relatedness increases self-determined motivation.
- Research supports an SDT framework for understanding alcohol-related behaviors (Richards et al., 2020).
- This framework may be equally useful for cannabis with the potential to inform intervention efforts.

Present Study

- We examined autonomous functioning and the psychological needs as correlates of cannabis-related outcomes among a large, multi-site sample of college students who used cannabis in the past month.

RESULTS

Figure 1. Histograms, scatterplots, and bivariate correlations for (protective) self-determination theory constructs with cannabis-related outcomes

Table 1. Bivariate correlations between (risk) self-determination constructs and cannabis-related outcomes

<table>
<thead>
<tr>
<th>PBS</th>
<th>CUDIT</th>
<th>MACQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy Frustration</td>
<td>-.127**</td>
<td>.199**</td>
</tr>
<tr>
<td>Relatedness Frustration</td>
<td>-.144**</td>
<td>.216**</td>
</tr>
<tr>
<td>Competence Frustration</td>
<td>-.121**</td>
<td>.229**</td>
</tr>
</tbody>
</table>

Note. CUDIT = Cannabis Use Disorder Identification Test; MACQ = Marijuana Consequences Questionnaire. **p < .01

DISCUSSION

- The present study was an initial application of SDT to understanding cannabis-related behaviors.
- Replicating prior work on alcohol, greater autonomous functioning and psychological need satisfaction were protective factors for cannabis: related to more frequent use of harm reduction behaviors, less consumption, and fewer negative consequences.
- In contrast, greater psychological need frustration was a risk factor for cannabis.
- These findings support SDT as related to cannabis.
- SDT provides a rich framework for understanding why college students may engage in healthy cannabis-related behaviors as well as the conditions that foster that engagement, making it an ideal theory to inform cannabis interventions.
- The present findings warrant replication but suggest promise for SDT as a framework for understanding cannabis-related outcomes that future research should investigate further.

METHOD

Participants

- 5497 students recruited from Psychology Department participant pools at 10 universities in 8 states across the U.S.: AK, CA, CO, ID NM, TX, VA, and WA.
- We restricted analyses to those who reported consuming cannabis at least once in the past month (n=1398, ~25%).
- The analytic sample was 20.25 years of age on average (SD=3.88) and mostly female (68.9%) and non-Hispanic white (59.4%).

Procedures

- Participants completed an online survey for partial course credit that included the following measures:
  1. Index of Autonomous Functioning (IAF) 
     - 15 items; α = .846 -.924
  2. Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS) 
     - 24 items; α = .743 -.894
  3. Protective Behavioral Strategies for Marijuana (PBSM) 
     - 17 items; α = .902
  4. Revised version of the Cannabis Use Disorder Identification Test (CUDIT) 
     - 8 items; α = .854
  5. Brief version of the Marijuana Consequences Questionnaire (MACQ) 
     - 21 items; α = .879

Note. CUDIT = Cannabis Use Disorder Identification Test; MACQ = Marijuana Consequences Questionnaire.

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