

## **Preliminary Psychometric Testing of the Treatment Self-Regulation Questionnaire for Assessing Motivations for Responsible Cannabis Use: An Application of Self-Determination Theory**

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Cannabis use protective behavioral strategies (PBS) are cognitive-behavioral strategies used before, during, and/or after cannabis use to reduce cannabis use and related problems. Self-determination theory (SDT) provides a potentially useful framework to understand motivations for responsible cannabis use, which is operationalized in the present study as PBS use. In the present study, we examined the relation of motivations for responsible cannabis use, as assessed by the 15-item Treatment Self-Regulation Questionnaire (TSRQ), with cannabis PBS use and other cannabis-related outcomes. A sample of 408 past month cannabis users were recruited from a multisite study of college students ( $n=1856$ ). Consistent with SDT and previous studies of the TSRQ for drinking responsibly, we found support for a 4-factor structure of the TSRQ via Exploratory Structural Equation Modeling ( $CFI=.974$ ,  $RMSEA=.047$ ): autonomous motivation (important conscious valuing; “Because I personally believe it is the best thing for my health”), introjected regulation (internal rewards/punishments; “Because I would feel guilty or ashamed of myself if I did not use cannabis responsibly”), external regulation (external rewards/punishments; “Because others would be upset with me if I did not”), and amotivation (lacking intent; “I really don't think about it”). Consistent with SDT, introjected regulation was positively associated with cannabis PBS use ( $\beta=.373$ ,  $p<.001$ ) and external regulation was negatively associated with cannabis use ( $\beta=-.258$ ,  $p<.001$ ). Unexpectedly, autonomous motivation ( $\beta=.142$ ,  $p=.092$ ) and amotivation ( $\beta=-.012$ ,  $p=.842$ ) was not significantly related to cannabis PBS use. Our overall model (motivation→PBS use→cannabis use→consequences/symptoms) accounted for a substantial portion of the variance in cannabis-related outcomes including frequency of cannabis use ( $R\text{-square}=.301$ ), negative cannabis-related consequences ( $R\text{-square}=.189$ ), and cannabis use disorder symptoms ( $R\text{-square}=.441$ ). Overall, our results partially support the predictions of SDT, suggesting the need for further development and refinement of the TRSQ for assessing responsible cannabis use.