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Cross-Domain Correlates of Cannabis Use Disorder Severity Among Young Adults

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Abstract

Background: Correlates of cannabis use and dependence among young adults have been widely studied. However, it is not known which factors are most strongly associated with severity of cannabis use dependence (CUD) severity. Identification of the salient correlates of CUD severity will be of increasing clinical significance as use becomes more socially normative.

Methods: This study used a data-driven, hypothesis-free approach to examine the most robust correlates of CUD severity among a sample of 76 young adults (ages 18 to 25 years) who used cannabis at least weekly. Seventy-one candidate variables were examined for association with CUD severity. These included demographic variables, self-reported and psychodiagnostic assessments of mood and anxiety, self-reported measures of personality, cannabis and other substance use characteristics, and objective and subjective measures of cognition.

Results: Of the 71 candidate variables considered, 27 were associated with CUD severity on a univariate level at a p-value = 0.20. Correlates of CUD severity in the multivariable model using stepwise selection were: more frequent cannabis use in the past 90 days, greater expectancies that cannabis causes cognitive and behavioral impairment, greater self-reported metacognitive deficits, greater anxiety, and lower reaction time variability on a test of sustained attention. Internal validation tests support high prediction accuracy of all variables in the multivariable model, except for lower reaction time variability.

Conclusions: Cannabis use frequency, beliefs about use, perceived cognitive abilities, and anxiety are robustly associated with CUD severity in young adult, regular cannabis users, and may be important in guiding prevention and treatment efforts.

Keywords

cannabis; cannabis dependence; young adults

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1. INTRODUCTION

After alcohol, cannabis is the most commonly used substance among young adults in the United States, with 52% reporting ever use, and one in four using in the past month (SAMHSA, 2017). As most cannabis users are not functionally impaired by use (Hasin et al., 2015), it is critical to identify better targets for prevention and treatment efforts that can be tailored to the most vulnerable of users.

Correlates of lifetime cannabis exposure and problems from use in young adults have been extensively studied, and most commonly fall broadly across domains of demographics, mood, personality, cognition, and substance use. Older age during adolescence and young adulthood (Gaete and Araya, 2017), male sex (Coffey et al., 2003; Hayatbakhsh et al., 2009; Terry-McElrath et al., 2017), co-occurring psychopathology (Buckner et al., 2008; Farmer et al., 2016; Lopez-Quintero et al., 2011; Pingault et al., 2013), cognitive deficits (Crane et al., 2015; Scott et al., 2018), and personality traits including impulsivity (Day et al., 2013; Meil et al., 2016; Passarotti et al., 2015) and sensitivity to reward and punishment (Prince van Leeuwen et al., 2011) have all been implicated in lifetime cannabis use and dependence. Substance use characteristics have also been identified as correlates of lifetime and problematic use, and include earlier onset and more frequent use of cannabis (Coffey et al., 2003; Fergusson and Horwood, 1997), greater expectancies of and motives for cannabis use (Buckner, 2013; Foster et al., 2015; Fox et al., 2011; Lee et al., 2007), affiliation with cannabis using peers (Reboussin et al., 2007; von Sydow et al., 2002; Washburn and Capaldi, 2014) and concomitant and early use of alcohol and tobacco (Behrendt et al., 2009; Butterworth et al., 2014; Ehrenreich et al., 2015; Korhonen et al., 2010).

Few studies, to our knowledge, have examined correlates of cannabis use disorder (CUD) *severity* in young adults. Identification of correlates of CUD severity is more clinically meaningful than lifetime exposure given that ever use in this demographic is trending toward becoming socially normative and most users do not have problems from use. Additionally, despite the abundance of cannabis use correlates identified in the extant literature, substantial variance is likely shared across factors thereby inflating the type II error rate. Therefore, this study employed a data-driven, hypothesis-free approach to examine which previously identified psychosocial correlates of cannabis use were most robustly implicated in CUD severity among a sample of young adult, regular cannabis users.

2. METHODS

Participants were 76 weekly or more cannabis-using young adults between the ages 18 and 25 years (Race: 63.2% White, 15.8% Black, 11.8% More than one race, 9.2% Other; Education: $M=14.5$ years, $SD=1.4$). Participants came from the baseline assessment of a longitudinal parent project on cognition and cannabis use, and were recruited via flyers and advertisements in the Boston area. Participants provided written informed consent prior to beginning study procedures and were compensated for participation.

2.1 Outcome Measure

The Cannabis Use Disorder Identification Test-Revised (CUDIT-R; Adamson et al., 2010) is a self-report screening measure that assesses severity of cannabis use across the domains of consumption, cannabis problems, dependence, and psychological features (Cronbach's $\alpha = 0.91$). Scores of 8 indicate hazardous use and scores 12 indicate a possible CUD. For the current study, CUDIT-R scores were considered continuously (range: 0-32), with higher scores suggestive of greater severity of problems from use.

2.2 Candidate Correlates

Descriptions of included measures are available in supplementary material.

2.2.1. Demographics, psychiatric characteristics, and personality.—Current and lifetime psychiatric characteristics were assessed with the Mood and Anxiety Symptom Questionnaire (MASQ; Watson and Clark, 1991), the lifetime major depressive disorder module of the Structured Clinical Interview for DSM-5 (SCID-5; First et al., 2015), and a childhood Attention-Deficit/Hyperactivity Disorder symptom checklist based off of DSM-5 diagnostic criteria. The Behavioral Inhibition System/Behavioral Activation System Scales (Carver and White, 1994) assessed sensitivity to reward and punishment. The Ten Item Personality Inventory (Gosling et al., 2003) evaluated extroversion, agreeableness, conscientiousness, emotional stability, and openness. Impulsivity was examined with the Urgency, Premeditation (lack of), Perseverance (lack of), Sensation Seeking, Positive Urgency, Impulsive Behavior Scale (Lynam et al., 2006).

2.2.2. Substance use.—Frequency of cannabis and alcohol use in the past 90 days (i.e., number of days used), age of cannabis and alcohol initiation, and average self-reported cannabis “high” were assessed in a modified Timeline Followback interview (Robinson et al., 2014). Perceived harm from cannabis use was assessed with a single question from the National Survey on Drug Use and Health. The Marijuana Effect Expectancy Questionnaire (Schafer and Brown, 1991) measured cannabis expectancies. The Marijuana Motives Measure (Simons et al., 1998) assessed motivating factors for cannabis use. Perceived peer approval and peer use of cannabis were assessed with single items from the 2015 Monitoring the Future survey. Biochemical assays of cannabis use were conducted from urine, using creatinine-adjusted 11-nor-9-carboxy- Δ^9 -tetrahydrocannabinol metabolite levels. Alcohol dependence symptoms were measured with the Alcohol Use Disorders Identification Test (Saunders et al., 1993).

2.2.3. Cognition.—Full-scale premorbid IQ was estimated via the Wechsler Test of Adult Reading (Wechsler, 2001), which was administered by study staff trained in standard administration and interpretation by a licensed neuropsychologist. Self-reported current executive deficits were assessed with T-scores of the Metacognition and Behavioral Regulation scales of the Behavior Rating Inventory of Executive Function-Self Report Version (Guy et al., 2004). The Monetary Choice Questionnaire (Kirby et al., 1999) quantified delayed discounting. Objective measures of attention, memory, and executive function were assessed with the Cambridge Neuropsychological Test Automated Battery (CANTAB; Sharma, 2013).

2.3. Statistical Approach

A univariate correlation screen was conducted between 71 candidate correlates and CUD severity using the total score from the CUDIT-R. Candidate univariate correlates associated with CUD severity at $p = 0.20$ were analyzed using a multivariable linear regression model with stepwise selection. Mean imputation was conducted for missing data to avoid case-wise deletion, with a maximum of 6% random missingness for any given variable. A p -value of 0.1 was used for model entry and variables with a p -value of 0.2 were retained. An alpha of 0.05 was used to determine which variables included in the final model were treated as significant. The final model's coefficient of determination, R^2 , was used to assess predictive ability. Internal validation was examined by performing a (1) 4-fold cross validation of the R^2 to evaluate predictive accuracy (Alexander et al., 2015), (2) permutation test (Winkler et al., 2014) on the R^2 in which a p -value < 0.05 indicated that the model's test statistic was not random, and (3) false discovery rate (FDR; Strimmer, 2008). Analyses were performed using SAS 9.4.

3. RESULTS

Sample demographics and univariate associations with CUD severity are delineated in Table 1. Twenty-seven variables were associated with CUD severity on univariate screen at $p = 0.20$, and were included in model selection.

Significant multivariable correlates of CUD severity were more frequent cannabis use, greater expectancies that cannabis causes cognitive and behavioral impairment, greater self-reported metacognitive deficits, greater anxiety, and less reaction time variability on a computerized sustained attention task (Table 2). There was a trend for less extraversion to be associated with higher CUD severity. The model explained 52% of the variance in CUD severity, with frequency of use explaining 20% of the variance. All internal validation tests supported high prediction accuracy of the multivariable model. The R^2 was 0.52 and 0.41 after cross-validation on an independent dataset. For the permutation test, 800 randomized samples were run and the proportion of R^2 greater than 0.52 was 0.01, suggesting that the R^2 obtained from the final model was not due to chance. Finally, the probability that each significant variable in the final model was falsely considered to be an important correlate among all possible significant correlates was less than 3%, except reaction time variability which had a FDR of 26%.

4. DISCUSSION

Frequent cannabis use, particularly when initiated earlier in life, is associated with greater risk for development of a CUD; however, most regular users are not dependent. It is imperative to understand which cannabis users are most likely to experience problems from use. While prior studies have evaluated cross-domain correlates of dependence (e.g., van der Pol et al., 2013), this report is among the first to focus on young adults and to consider CUD severity as a continuous outcome, improving the chance for detection of associations across the full spectrum of cannabis-related problems. Additionally, our stepwise multivariable approach accounts for the expected high collinearity between correlates, improving our ability to identify the most robust correlates of CUD severity.

Using cannabis on more days in the past three months was associated with higher levels of CUD severity in this young adult sample. This is consistent with studies that implicate cannabis use frequency, more so than cannabis use quantity, as a correlate of cannabis dependence (Chen et al., 1997; Coffey et al., 2003), and extend this literature by showing that the extent of cannabis involvement is associated with *severity* of dependence. Frequency of use may be a particularly salient correlate of CUD severity in younger users (Chen et al., 1997) due to ongoing brain maturation that may result in lower drug tolerance, increased sensitivity to the reinforcing effects of cannabis, and/or increased vulnerability to the social, physiological and psychological consequences of cannabis exposure.

Greater expectation of cognitive and behavioral impairments from cannabis use was positively associated with severity of CUD. Although others have found negative cannabis outcome expectancies to be *protective* against heavy cannabis use (Aarons et al., 2001; Simons and Arens, 2007), we are not the first to show negative cannabis outcome expectancies to be positively associated with cannabis-related problems (Buckner and Schmidt, 2008, 2009). Baseline negative expectancies may predispose someone to have greater CUD severity, possibly because cognitive and/or behavioral alterations may be perceived to be a desired effect of cannabis intoxication. It is also plausible that this association may represent an accurate appraisal of experiences with cannabis among those who have problems from use.

Current anxiety was also associated with greater CUD severity. This is consistent with the high prevalence of psychiatric comorbidities among heavy and/or dependent users (Kedzior and Laeber, 2014; Roberts et al., 2007), likely attributable to bidirectional relationships between cannabis use and psychiatric symptoms. Prior studies have similarly shown internalizing psychopathology to predict cannabis use (Stapinski et al., 2016; Washburn and Capaldi, 2014) and dependence (Farmer et al., 2016). Our findings also indicate that current anxiety may have stronger associations with CUD severity than depression, aligning with work by Stapinski and colleagues (2016) who found that generalized anxiety, but not depression, was associated with a two to four-fold increase in cannabis use. Surprisingly, motivational factors did not emerge as significant correlates of CUD severity. Coping motives (i.e., use for internal reward and/or negative reinforcement) have been robustly linked with higher rates of and greater impairment from cannabis (Buckner, 2013; Bujarski et al., 2012; Hides et al., 2008; Johnson et al., 2010; Simons et al., 1998; Skalsky et al., 2019) as well as other substances including alcohol (Blevins et al., 2016; Merrill et al., 2014). While greater endorsement of cannabis use for the alleviation of negative affect was significant in the current study at a univariate level, it was not associated with greater CUD severity in the multivariable model. This is likely due to a high degree of shared variance with other considered factors (e.g., current symptoms of low mood and anxiety). Future studies should consider whether coping motives independently predict subsequent cannabis problems, or whether this association is better explained by current psychiatric symptoms.

Finally, self-reported metacognitive deficits that interfere with daily functioning were associated with CUD severity, as has been found with other substances (Aharonovich et al., 2017; Riggs et al., 2012). Data from the National Epidemiologic Survey on Alcohol and Related Conditions–III (NESARC-III) found poorer self-reported attention and executive

functioning to be associated with more frequent past-year binge drinking and drug use, with every unit decrease in executive functioning associated with two times increased odds of substance use (Aharonovich et al., 2017). Surprisingly, the current study did not find an association between performance-based cognitive deficits and CUD severity, as demonstrated previously (Crane et al., 2013; Hanson et al., 2010; Lisdahl et al., 2014; Meier et al., 2012). This study counterintuitively found less reaction time variability to be associated with greater CUD severity. However, confidence in the replicability of this finding is low because the false discovery rate for reaction time variability was 26% compared to a maximum of 2.7% for the other significant multivariable correlates. The overall lack of association between objective assessments of cognition and CUD severity may be due to measurement sensitivity, ceiling effects, and/or sample characteristics (e.g., less severe cannabis use than included in prior studies). Further, objective measures of cognition may predict CUD severity only among certain vulnerable subgroups, including younger users and/or those with longer lifetime duration of use; however, our modest sample size precluded exploring such moderators.

Limitations should be noted. First, this was a cross-sectional study and therefore it cannot be determined whether the candidate correlates preceded CUD severity. Bidirectional effects are likely. Second, this study investigated a relatively high functioning sample of young adults in terms of education and co-morbidities, and therefore results may only generalize to young adult cannabis users with similar characteristics. Similarly, given the sample's average IQ, we suspect that this sample was also high functioning in terms of cognition; however, the lack of available normative data for the performance-based cognitive measures limit our ability to determine this definitively. Additionally, stepwise regression should be considered an exploratory technique. Emergent significant correlates should be considered as likely predictors to be tested in future confirmatory studies. Finally, although the investigated candidate correlates were selected given their strong associations in the extant literature, candidate correlates were limited to those included in the parent project. Negative life events, childhood adversity, family history and stress were not considered.

As rates of cannabis use rise among young adults, it is increasingly important to characterize cannabis users most likely to experience problems from use. Among young adult regular cannabis users, several factors related to cannabis use, beliefs about use, anxiety and cognitive abilities were strongly associated with CUD severity. Future studies are warranted to determine the efficacy of intervening on these targets to mitigate problems from use and/or prevent the onset of dependence altogether.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Highlights

- This study identified multivariable correlates of cannabis use disorder severity among regular, cannabis using young adults.
- As expected, frequent cannabis, impairment expectancies, anxiety, and self-reported cognitive deficits were associated with cannabis use disorder severity among regular users.
- Other factors previously identified in the literature, including gender, alcohol use, and impulsivity were not significant correlates of cannabis use disorder severity.

Table 1.

Descriptives of Candidate Correlates and Univariate Associations with Cannabis Use Disorder Severity

Factor		Descriptives	r	p-value
Demographics	Age	21.79 (1.74)	-0.09	0.43
	Sex (n, % male)	42, 55.26%	-0.06	0.58
Psychiatric Symptoms	Current Anxious Symptoms (MASQ)	19.95 (6.69)	0.29	0.01 [†]
	Current Anxious Arousal (MASQ)	24.30 (6.62)	0.41	0.0002 [†]
	Current Depressive Symptoms (MASQ)	23.50 (9.22)	0.38	0.0008 [†]
	Current Anhedonic Depression (MASQ)	55.87 (12.74)	0.38	0.0006 [†]
	Childhood Inattention (ADHD Symptom Checklist)	3.01 (2.82)	0.25	0.03 [†]
	Childhood Hyperactivity (ADHD Symptom Checklist)	3.79 (2.85)	0.17	0.15 [†]
	Lifetime MDD (n, %; SCID-5)	31, 41.33%	0.14	0.24
Personality and Trait-Level Characteristics	BAS Drive (BIS/BAS)	8.75 (2.19)	0.01	0.91
	BAS Fun Seeking (BIS/BAS)	7.38 (1.76)	-0.12	0.29
	BAS Reward Responsiveness (BIS/BAS)	8.36 (1.85)	0.05	0.64
	BIS (BIS/BAS)	15.61 (2.15)	-0.15	0.20 [†]
	Personality (TIPI)			
	Extraversion (TIPI)	9.30 (2.86)	-0.25	0.03 [†]
	Agreeableness (TIPI)	9.71 (2.28)	-0.01	0.92
	Conscientiousness (TIPI)	10.30 (2.72)	-0.21	0.07 [†]
	Emotional Stability (TIPI)	9.32 (2.70)	-0.19	0.10 [†]
	Openness (TIPI)	11.72 (2.06)	0.09	0.45
	Urgency (UPPS-P)	2.34 (0.63)	0.25	0.03 [†]
	Premeditation (UPPS-P)	1.96 (0.50)	0.05	0.66
	Perseverance (UPPS-P)	1.98 (0.51)	0.11	0.35
	Sensation Seeking (UPPS-P)	3.05 (0.52)	0.10	0.39
	Positive Urgency (UPPS-P)	1.88 (0.70)	0.17	0.13 [†]
Cannabis Characteristics	Frequency of Cannabis Use in Past 90 Days (Days; TLFB)	53.88 (24.34)	0.46	<0.0001 [†]
	Age of Cannabis Initiation	16.19 (2.07)	-0.19	0.11 [†]
	Average "High" on Smoking Occasions	5.71 (1.45)	0.11	0.36
	Creatinine-Adjusted Urine THCCOOH Level (Mdn, IQR)	85.60 [29.40, 231.90]	0.30	0.01 [†]
	Perceived Harm of Weekly or More Cannabis Use (n, %)		0.09	0.43
	No Risk	40, 53.33%		
	Slight Risk	31, 41.33%		

Factor		Descriptives	r	p-value
	Moderate Risk	4, 5.33%		
	Great Risk	0, 0%		
	Cognitive and Behavioral Impairment Expectancies (MEEQ)	31.64 (6.92)	0.33	0.004 [†]
	Relaxation and Tension Reduction Expectancies (MEEQ)	29.63 (5.81)	0.10	0.39
	Social and Sexual Facilitation Expectancies (MEEQ)	27.96 (5.73)	0.07	0.54
	Perceptual and Cognitive Enhancement Expectancies (MEEQ)	27.76 (4.70)	0.21	0.07 [†]
	Global Negative Effects Expectancies (MEEQ)	15.99 (5.54)	0.21	0.07 [†]
	Craving and Physical Effects Expectancies (MEEQ)	24.47 (3.79)	0.13	0.25
	Coping Motives (MMM)	2.20 (0.91)	0.41	0.0003 [†]
	Conformity Motives (MMM)	1.24 (0.39)	0.22	0.07 [†]
	Social Motives (MMM)	2.38 (1.09)	0.16	0.17 [†]
	Enhancement Motives (MMM)	3.85 (0.76)	0.05	0.65
	Expansion Motives (MMM)	2.59 (1.19)	0.29	0.01 [†]
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Peer Characteristics	Perceived Peer Approval of Regular Cannabis Use (n, %)		0.07	0.57
	Not Disapprove	67, 88.16%		
	Disapprove	9, 11.84%		
	Strongly Disapprove	0, 0%		
	Number of Close Friends Who Use Cannabis (n, %)		-0.10	0.38
	None	0, 0%		
	A Few	2, 2.63%		
	Some	14, 18.42%		
	Most	53, 69.74%		
	All	7, 9.21%		
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Alcohol Characteristics	Frequency of Alcohol Use in Past 90 Days (Days; TLFB)	25.29 (15.11)	0.04	0.75
	Age of Alcohol Initiation	15.47 (2.07)	-0.28	0.02 [†]
	Alcohol Dependence Symptoms (AUDIT)	8.45 (5.78)	0.05	0.70
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Subjective Measures of Cognition	Self-Reported Metacognitive Deficits (T Score; BRIEF)	53.74 (10.62)	0.33	0.004 [†]
	Self-Reported Behavioral Regulation Deficits (T Score; BRIEF)	51.18 (10.57)	0.32	0.006 [†]
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Objective Measures of Cognition	Estimated IQ (WTAR)	107.04 (9.44)	0.13	0.25
	Delay Discounting: Geometric Mean (Mdn, IQR)	0.01 [0.005, 0.02]	-0.08	0.49
	Sustained Attention (RVP; CANTAB)			
	A Prime	0.93 (0.05)	0.14	0.24

Factor	Descriptives	r	p-value
Response Latency	404.49 (96.67)	-0.10	0.38
Response Latency Standard Deviation	164.72 (101.70)	-0.16	0.16 [‡]
Visuospatial Span (SSP; CANTAB)			
Span Length	7.07 (1.33)	-0.17	0.13 [‡]
Time to Last Response	7928.77 (1790.75)	-0.02	0.88
Time to Last Response Standard Deviation	4474.70 (2181.05)	0.003	0.98
Verbal Memory (VRM; CANTAB)			
Total Correct, Trial 1	8.67 (2.19)	-0.08	0.49
Total Correct, Trial 2	12.34 (2.89)	-0.01	0.92
Total Correct, Delay	10.57 (2.99)	-0.08	0.49
Short-Term Visual Recognition Memory (DMS; CANTAB)			
Percent Correct (Mdn, IQR)	91.67 [81.25, 95.83]	-0.08	0.49
Response Latency at 12000ms delay	3733.58 (1225.27)	0.04	0.73
Set Shifting (AST; CANTAB)			
Response Latency, Congruent Trials	489.12 (109.32)	0.02	0.87
Response Latency, Incongruent Trials	538.02 (126.97)	-0.002	0.99
Congruency Cost (Mdn, IQR)	34.25 [15.75, 74.25]	-0.09	0.46
Switching Cost (Mdn, IQR)	150.25 [102.50, 221.00]	0.05	0.64
Spatial Working Memory (SWM; CANTAB)			
Between Errors	78.17 (47.05)	0.05	0.70
Strategy	50.32 (15.46)	-0.05	0.69
Planning (OTS; CANTAB)			
Problems Solved of First Choice (All Levels)	11.41 (2.09)	0.01	0.96
Problems Solved on First Choice (Hardest Level)	1.36 (0.93)	0.02	0.86
Choices to Correct (All Levels; Mdn, IQR)	1.27 [1.20, 1.47]	0.04	0.72
Choices to Correct (Hardest Level; Mdn, IQR)	1.67 [1.33, 2.17]	0.10	0.37
Response Time to Correct (All Levels)	21803.48 (8207.65)	0.13	0.28
Response Time to Correct (Hardest Level)	4748.29 (24847.66)	0.18	0.11 [‡]

Note.

[‡] indicates predictors considered for the multivariable model (p < 0.20).

Descriptives are presented as means (standard deviations) unless otherwise noted. ADHD, Attention-Deficit/Hyperactivity Disorder; AST, Attention Switching Task; AUDIT, Alcohol Use Disorder Identification Test; BIS/BAS, Behavioral Inhibition System/Behavioral Activation System Scale; BRIEF, Behavior Rating Inventory of Executive Functions; CANTAB, Cambridge Neuropsychological Test Automated Battery; CUDIT-R, Cannabis Use Disorder Identification Test, Revised; DMS, Delayed Matching to Sample; MASQ, Mood and Anxiety Symptom Questionnaire; MDD, Major Depressive Disorder; MEEQ, Marijuana Expectancies Questionnaire; MMM, Marijuana Motives Questionnaire; OTS, One Touch Stockings of Cambridge; RVP, Rapid Visual Information Processing; SCID-5, Structured Clinical Interview for DSM-5; SSP, Spatial Span; SWM, Spatial Working Memory; TIPI, Ten Item Personality Inventory; THCCOOH, 11-Nor-9-carboxy- Δ^9 -tetrahydrocannabinol; TLFB, Timeline Follow-Back; UPPS-P, Urgency, Premeditation (lack of), Perseverance (lack of), Sensation Seeking, Positive Urgency, Impulsive Behavior Scale; VRM, Verbal Recognition Memory; WTAR, Wechsler Test of Adult Reading.

Table 2.

Final Stepwise Multivariable Model Parameters

Step	Factor Entered	Factor Removed	Partial R ²	Model R ²	Coefficient	SE	P-Value
1	Frequency of Cannabis Use in Past 90 Days (Days)		0.20	0.20	0.08	0.02	0.0003
2	Cognitive and Behavioral Impairment Expectancies		0.11	0.31	0.21	0.07	0.004
3	General Distress Depressive Symptoms		0.08	0.39	--	--	--
4	RVP Reaction Time Standard Deviation		0.04	0.44	-0.01	0.005	0.04
5	Self-Reported Metacognitive Deficits		0.03	0.47	0.12	0.05	0.01
6	Anxious Arousal		0.03	0.49	0.26	0.08	0.002
7	General Distress Depressive Symptoms		0.003	0.49	--	--	--
8	Extraversion		0.03	0.52	-0.36	-0.36	0.06