



# The Influence Of Cannabis Use Disorder and Co-Morbid Mental Health Problems On NSSI in College Students

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## Background

- College students engaging in non-suicidal self-injury (NSSI) are more likely think about and attempt suicide.<sup>1</sup>
- Cannabis use disorder (CUD) is strongly associated with mental health disorders,<sup>2</sup> and linked to increased rates of NSSI.<sup>3</sup>
- While CUD is indirectly associated with increased suicidal ideation in college students through worse mental health symptoms,<sup>4</sup> the indirect relationship of CUD and NSSI through mental health symptoms have not been examined.
- **Hypothesis:** High CUD symptoms would be associated with greater mental health symptom severity (i.e., AUD, PTSD, depression symptoms), which in turn would be associated with increased odds of engaging in current NSSI.

## Method

- College students (N = 363) participated in larger cross-sectional survey examining the role of cannabis on educational functioning.
- Measures included the CUDIT-R,<sup>5</sup> LEC-5,<sup>6</sup> PCL-5,<sup>7</sup> and PHQ-9,<sup>8</sup> AUDIT-R,<sup>9</sup> and MHQ-4.<sup>10</sup>
- A mediation analysis was conducted in SPSS, with the Hayes PROCESS macro.
- Given the high shared variance between PTSD and depression symptoms,<sup>11</sup> a PTSD-depression factor was derived using principle components analysis.

## Results

- Mediation analysis indicated PTSD-depression symptoms mediated the impact of CUD symptom severity on NSSI (see Figure 1).

# Greater cannabis dependence is associated with greater risk for non-suicidal self-injury via high PTSD and depression symptoms in college students.

Table 1. Bivariate Correlations

	M	SD	1	2	3	4
1. Gender	-	-				
2. AUD Symptom Severity	5.16	4.31	.03			
3. CUD Symptom Severity	8.42	5.97	-.17**	.17**		
4. PTSD-Depression Symptoms	-	-	.25**	.14**	.13**	
5. Current NSSI	-	-	.18**	-.02	.04	.27**

Note. Predictor variables were coded as: Male = 1, Female = 2. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p \leq .001$ .

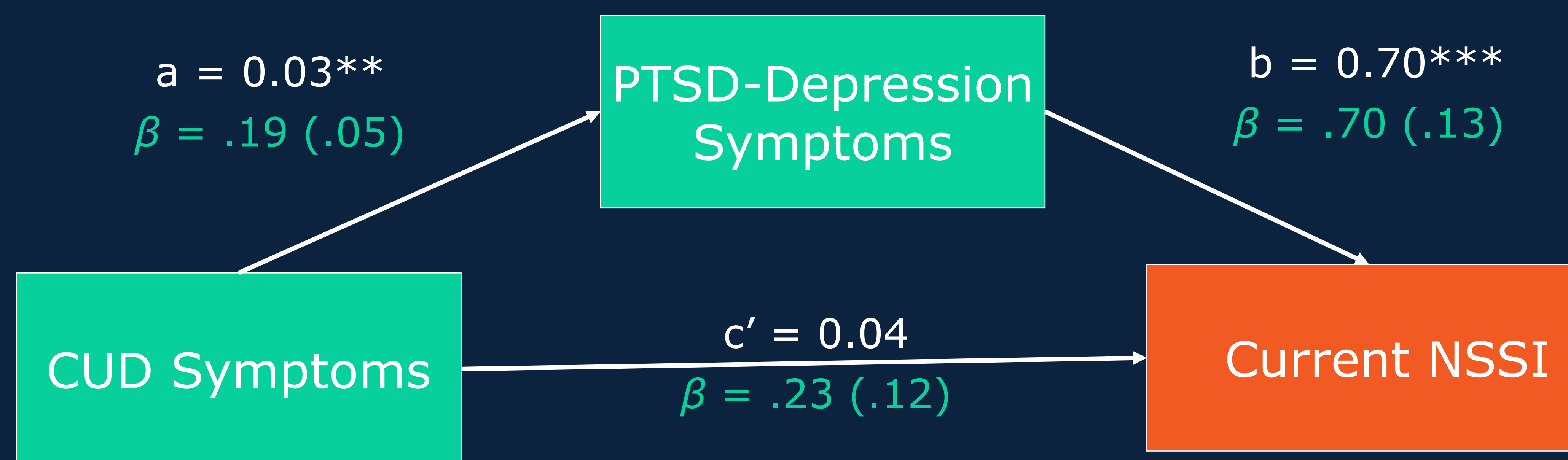


Figure 1. Standardized coefficients and standard errors are displayed below unstandardized coefficients. The indirect effect of CUD symptoms on risk for engagement in NSSI through PTSD-depression symptoms was significant,  $b = .02$ ,  $SE = .01$ , 95% CI: [.01, .04]. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

## More Info

### Participants

- **Inclusion Criteria:** 1) 18+ years; 2) enrolled at UTSA; 3) allowed access to academic transcripts 4) Used cannabis within the past 6 months.

### Sample Characteristics

- **Age:** M = 20.24 (SD = 4.23)
- 72.2% **Female**, 65.8% **Hispanic**, 74.7% **White**
- **College Classification:** 48.2% Freshman; 25.1% Sophomore; 13.8% Junior; 12.9% Senior
- **35.8% Probable CUD** (CUDIT-R  $\geq 10$ ).<sup>13</sup>
- **41.9% Probable PTSD** (PCL-5  $\geq 33$ ).<sup>14</sup>
- **38.0% Probable MDD** (PHQ-9  $\geq 10$ ).<sup>15</sup>
- **20.4% Probable AUD** (AUDIT-R  $\geq 8$  for ♀/  $\geq 9$  for ♂).<sup>16</sup>

### Types of Current NSSI\*:

- **19.8%** Skin scratching/picking
- **6.3%** Hitting/punching
- **2.2%** Cutting
- **0.8%** Burning

\*categories not mutually exclusive

## Discussion

- CUD symptom severity is linked to increased risk for NSSI through its relationship to increased PTSD-depression symptoms, indicating students who engage in problematic cannabis use may be at greater need of monitoring for NSSI.
- Notable, AUD symptoms were not associated with greater risk for NSSI, contradictory to previous research.<sup>12</sup>
- Further longitudinal research is need to examine the indirect influence of CUD on NSSI through mental health symptoms over time.



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