

Childhood Trauma, PTSD Clusters, and Substance Use

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Childhood Trauma in U.S.

- Nearly 90% of adults in the U.S. report at least one experience of childhood trauma (Kilpatrick et al., 2013).
- PTSD clusters (APA, 2013):
 - Re-experiencing
 - Avoidance
 - Reactivity
 - Negative thoughts

Substance Use

- 81% of Americans 12 years or older have used alcohol (CBHSQ, 2016).
- 48.8% of Americans 12 years or older have tried illicit drugs (CBHSQ, 2016).
- Khantzian's self-medication hypothesis (1997).
 - Adults that have experienced traumatic events in childhood are more likely to abuse alcohol than adults without trauma (Anda et al., 2006; Clark et al., 1997; Enoch, 2011).

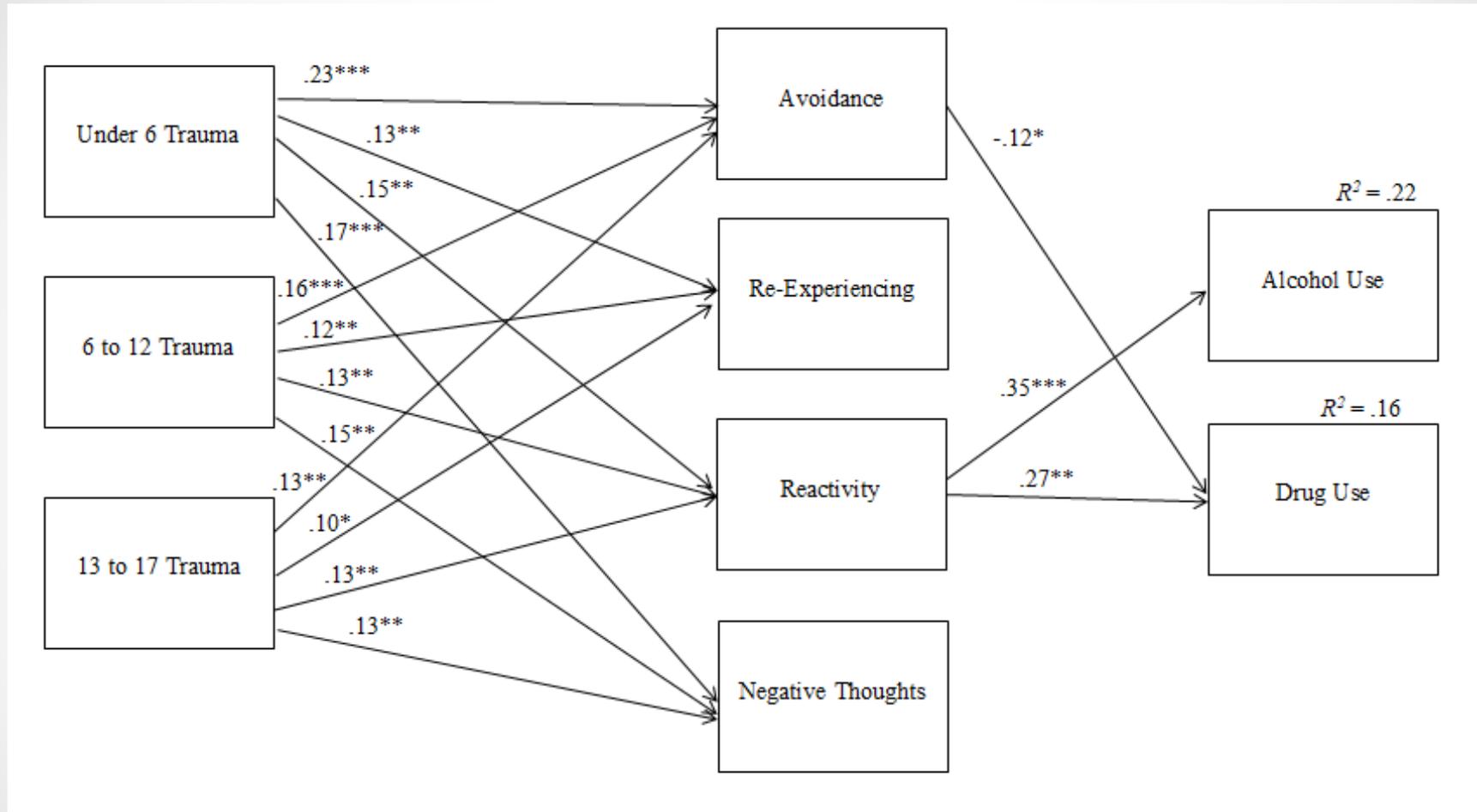
PTSD and Substance Use

- Other studies have used specialized populations to display the association between PTSD clusters (reactivity) and substance use in adults:
 - Female survivors of intimate partner violence (Dworkin et al., 2017; Sullivan & Holt, 2008)
 - College students (Lee et al., 2015)
 - Military service members (Homish et al., 2017)
- These findings have not been tested in general population studies.

Present Study

- H1: Traumatic experiences at all ages of childhood trauma will be significantly associated with all PTSD clusters.
- H2: Each PTSD cluster will be associated with alcohol and drug use.
- H3: PTSD clusters will fully mediate the associations between traumatic experiences and alcohol or drug use.
- 627 adults ($M = 31.88$; $SD = 4.32$; range 26-40) living in the U.S.
 - Amazon Mechanical Turk

Age of first exposure to childhood trauma, PTSD clusters, and alcohol and drug use (N = 627)



Model fit indices: $\chi^2(2) = 1.53, p > .05$; CFI = 1.00, RMSEA = 0.00 (90% CI .00-.07); SRMR = .01. Notes: Standardized betas reported. * $p < .05$, ** $p < .01$, *** $p < .001$, two-tailed. Control variables (not shown) include age and socioeconomic status.

Indirect effects of PTSD clusters, age of first childhood traumatic experiences, and alcohol and drug use (N = 627)

Predictor	Mediator	Outcome	β	Mediation
Under 6 years old first trauma →	Reactivity →	Alcohol Use	.10**	Full
Between 6-12 years old first trauma →	Reactivity →	Alcohol Use	.08*	Partial
Between 13-17 years old first trauma →	Reactivity →	Alcohol Use	.09**	Full
Under 6 years old first trauma →	Reactivity →	Drug Use	.02*	Full
Under 6 years old first trauma →	Avoidance →	Drug Use	-.01*	Full
Between 6-12 years old first trauma →	Reactivity →	Drug Use	.01*	Full
Between 13-17 years old first trauma →	Reactivity →	Drug Use	.02*	Full

Note: Indirect paths tested with bootstrapping (2000). * $p < .05$, ** $p < .01$, two-tailed.

Results

- Each childhood traumatic event age was significantly associated with each PTSD cluster.
 - One age group (6-12 years old at first trauma experience) was directly associated with decreased alcohol use in adulthood ($B = -.20, p < .001, \beta = -.11$)
- Reactivity was the most significant PTSD cluster directly associated with adult alcohol use.
- The association between avoidance and drug use had a small and negative effect size.
- Reactivity fully mediated the association between nearly every path, but with small effect sizes.

Implications

- General population data yields similar findings to previous research on specialized populations.
- Comprehensive history taking in clinical assessments will provide information about age of exposure to trauma, and may indicate that PTSD assessments are warranted even if the client does not present with PTSD diagnosis.
- PTSD assessments that explain cluster scores may influence treatment approaches for alcohol use in adulthood.
- Reducing reactivity may have the potential to reduce alcohol consumption.

