

CHILDHOOD TRAUMA AND EARLY ADULT
ENGAGEMENT IN DEVIANT BEHAVIOR: A
MEASURE OF EXPERIENTIAL AVOIDANCE
AND IMPULSIVITY ASSOCIATION

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CONSIDERATIONS

- **Experiential Avoidance (EA)** = the operant avoidance or escape from negative internal stimuli (Gámez, Chmielewski, Kotov, Ruggero, & Watson, 2011).
- **Childhood Trauma (CT)** = exposure to physical neglect, emotional neglect, physical abuse, emotional abuse, or sexual abuse prior to the age of 18.
- **Behavioral Deviance (BD)** = e.g. drug consumption, weapon possession, aggression, and theft or embezzlement.
- **Impulsivity (IMP)** = 1) reactions to stimuli prior to information processing, 2) disregard for consequences, and 3) reduced sensitivity to negative consequences (Moeller, Barratt, Dougherty, Schmitz, and Swann, 2001).
- **Cognitive Flexibility (CF)** = the ability to identify and pursue adaptive solutions to complex tasks (Ionescu, 2012).
- **High EA = Low CF / Low EA = High CF**
- **Childhood Trauma Severity = CTS**
- **Childhood Trauma Experience = CTE**

INTRODUCTION

Adverse Childhood Experience scores indicate that 1 in 10 children face risk for developmental effects due to trauma (Sacks & Murphey, 2018).

WHAT DOES THIS TRAUMA RESULT IN?

- Higher impulsivity scores (Marshall, et al., 2016);
 - Relationship instability;
- Socio-psychological acute stress (e.g. workaholism);
- Linked to involvement in criminal activities/problem behaviors (BD).

INTRODUCTION

RESEARCH GAP..

We know what results from trauma, but what are the variables of interest in between?

- Study variables that could explain deviance that results from exposure to childhood trauma
- Modification of the variables may support a healthy lifestyle and decrease the repercussions of experienced childhood trauma

REVIEW OF LITERATURE

- **Palm and Follette (2011)...**
 - Measured CF and EA among female survivors of interpersonal violence to determine a relation to levels of depression and severity of post-traumatic stress disorder (PTSD), N = 92
 - PTSD is positively associated with CT (Bendall, 2012)
 - EA=Acceptance and Action Questionnaire (AAQ); CF=Cognitive Flexibility Scale (CFS)
 - Results: PTSD reports → Higher EA scores, Lower CF scores (associative)
- **Spann, et al. (2012)...**
 - Relationship between self-reported CT and levels of CF among students ages 12-17, N=30
 - CT=Childhood Trauma Questionnaire (CTQ); CF=Wisconsin Card Sorting Test (WCST)
 - Results: CT → Lower CF scores (associative)
 - Suggestive of higher EA scores among CT participants

REVIEW OF LITERATURE

- **Roche, Kroska, Miller, Kroska, and O'Hara (2018)...**
 - Studied relationship between CT, EA, mindfulness, and problem behaviors (PB) in a sample of college students; N=414
 - Note: Low mindfulness = high impulsivity
 - CT=Early Trauma Inventory Self Report-Short Form; EA=AAQ-II; PB=Composite Measure of Problem Behavior (CMPB)
 - Results: High EA → PB; CT → Lower mindfulness/higher IMP (mediation analysis)
- **Babinski, Hartsough, and Lambert (1999)...**
 - Measured IMP as a predictor for criminal involvement among participants with ADHD; N=305; longitudinal study, 9-26 years of age
 - IMP = Children's Attention and Adjustment Survey; Criminality = What's Happening Questionnaire
 - Results: IMP → Criminality

CURRENT STUDY

AIM...

Identify a relationship between four variables:

- Engagement in criminal activities (behavioral deviance)
- Impulsivity
- Experienced childhood trauma and
- Experiential avoidance

HYPOTHESIS...

Participants that experienced childhood trauma will score higher on scales of impulsivity and experiential avoidance and be more likely to engage in behavioral deviance in early adulthood

METHODOLOGY

PARTICIPANTS AND PROCEDURE

- **N** = 588 (of 5,000)
- **Gender:** 375 female, 203 male, 9 “Other” and 1 unreported
- **Age:** 18 to 35, with a mean age of 22.7 (SD = 4.1).
- **Race/ethnicity:** Caucasian (74.1%), Hispanic (8.2%), African-American (7.1%), Asian (5.8%), and “Other” (4.8%).
- **Religious Affiliation:** Christianity (47.6%), Agnosticism (11.1%), Atheism (7.5%), Islam (3.1%), Hinduism (1 percent), Buddhism (0.7 percent), Judaism (0.2 percent), “None” (25.2%), and “Other” (3.7%)
- **Marital Status:** 588 reports; 86.1% were single, 10.2% were married, 0.5 percent were divorced, and 3.2% reported “Other.”
- Emails → Link → Anonymous Qualtrics Survey
- Informed Consent → Responses for Demographics, EA, CT, IMP, and BD → Referral Resource List
- SPSS Statistical Analysis

METHODOLOGY

MEASURES

- **Demographics...** Age, Gender, Race/Ethnicity, Religious/Spiritual Affiliation, and Relationship Status
- **EA...** Multidimensional Experiential Avoidance Questionnaire (MEAQ); Acceptance and Action Questionnaire II (AAQ-II); ($\alpha = 0.92$).
- **CT...** CTQ: Childhood Trauma Events Scale measuring emotional, physical, and sexual abuse, and traumatic experience; 2009-2010 Delaware Students Survey measuring public, academic trauma; 8 additional items measuring physical and emotional neglect, sexual abuse, general trauma, and emotions associated with CT; measured severity of trauma; ($\alpha = 0.75$).
- **IMP...** Barratt Impulsiveness Scale (BIS) measuring task planning, ability to attend, ease of concentration, and more; 1 additional item measuring task completion; ($\alpha = 0.83$).
- **BD...** 2009-2010 Delaware Students Survey measuring academic and general criminality; additional items measuring criminality; ($\alpha = 0.90$).

RESULTS

Means...

- CTE mean was 0.41 ($SD = .18$)
- CTS mean was 16.85 ($SD = 9.48$)
- EA mean was 3.33 ($SD = .68$)
- IMP mean was 2.04 ($SD = 0.35$)
- BD mean was 1.39 ($SD = .39$)

Correlation Analyses...

- CTE and EA: $r=.23, p<.01$
- CTE and BD: $r=.31, p<.01$
- CTE and IMP: $r=.2, p<.01$
- BD and IMP: $r=.37, p<.01$
- EA and BD: $r=.09, p<.05$
- EA and IMP: $r=.37, p<.01$
- CTS and IMP: $r=.19, p<.01$
- CTS and BD: $r=.26, p<.01$
- CTS and CTE: $r=.93, p<.01$
- CTS and EA: $r=.34, p<.01$

Regression Analysis A: EA, CTE, CTS, IMP → BD

- Collectively, Sig. predicted BD; 19.6% of the variance ($R^2=.196, F(4,582)=35.4, p<.05$)
- CTE sig./pos. predicted BD ($\beta=.64, p<.05$)
- IMP sig./pos. predicted BD ($\beta=.36, p<.05$)
- EA N.S. predicted BD ($\beta=-.03, p=n.s.$)
- CTS N.S. predicted BD ($\beta=-.0, p=n.s.$)

Regression Analysis B: CTE, CTS, IMP → EA

- Collectively, Sig. predicted EA; 25.9% of the variance ($R^2=.259, F(3,583)=67.8, p<.05$)
- CTE sig. predicted EA; ($\beta=-2.2, p<.05$)
- IMP sig. predicted EA; ($\beta=.63, p<.05$)
- CTS sig. predicted EA; ($\beta=.06, p<.05$)

DISCUSSION

- **Hypothesis:** Participants that experienced CT will score higher on scales of IMP and EA and be more likely to engage in BD in early adulthood
- **Variables:** Association, no causation
- **EA, CTE, CTS, IMP → BD**
 - EA and CTS do NOT serve as a predictor of BD
 - CTE serves as a predictor for BD (positively associated)
 - Residual 80.4% of prediction variability unaccounted for (random variability)
- **CTE, CTS, IMP → EA**
 - Residual 74.1% of prediction variability unaccounted for (random variability)
 - Greater EA and greater IMP among participants that experienced CT and engage in adult BD
 - Lower EA among participants of CTE
 - Greater EA among participants of greater CTS
- Hypothesis supported BUT alternative variability remains

DISCUSSION

PREVIOUS LITERATURE

- **Spann, et al (2012)...**
 - Associations between self-reported CM and diminished CF in adolescents, or increased EA
- **Roche, Kroska, Miller, Kroska, and O'Hara (2018)...**
 - EA was a significant mediator between CT and PB among a sample of college students
 - lower rates of mindfulness among participants that had experienced CT = greater IMP among participants that reported CT
- **Marshall, et al. (2016)...**
 - Decrease in inhibitory control among a group of trauma participants in contrast to a normative group
- **Babinski, Hartsough, and Lambert (1999)...**
 - Factors of IMP contributed to a higher risk of criminal involvement

DISCUSSION

LIMITATIONS

- **College Student Sample...**
 - College attendance may imply a distinct impact of trauma
 - Could college attendance mean they experienced more/less than a participant from an alternative population?
- **Recall Bias in Self-Reports of CT...**
 - False disclosure of information
 - Disparate interpretation of questionnaire items OR inaccurate recollection of events
- **Specificity of traumas that result in BD...**
 - Traumas responsible for greater rates of EA and IMP

DISCUSSION

FUTURE RESEARCH

- **Memory recall bias...**
 - Inclusionary criteria of trauma specificity
 - Legal report of CT exposure
 - **Specificity of trauma...**
 - Questionnaires
 - Legal reports
 - **Relationship...**
 - EA and IMP
 - **Population...**
 - Random sample
 - Inclusionary criteria of CT exposure
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- **Remaining variability** between the variables for the purpose of psychological practices

DISCUSSION

CLINICAL IMPLICATIONS

- Interventions targeting IMP and EA may decrease BD among CT population

- Specificity of treatment

Should we be treating the EA, the IMP, or another variable?

Do we need to consider a different treatment approach for those of high CTS?

- Decrease BD in general (Sig. IMP component)

CONCLUSION

EA and IMP are mechanisms through which the association between CT and BD exist

Study:

Reported Variables + Remaining Variables → Treatment

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