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### Child Maltreatment, Depression, and Chronic Pain in College Students: An Exploratory Study

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# Child Maltreatment, Depression, and Chronic Pain in College Students: An Exploratory Study



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## Background

**Child maltreatment (CM)** is a significant, widespread public health issue in the United States affecting large numbers of undergraduates and increasing risk for poor college outcomes; our research at UNC has established that around 1 in 3 students self-report evidence of CM history (e.g., Welsh et al., 2017). Health-related CM outcomes such as **depression** and **chronic pain (CP)**, both of which can interfere with activities of daily living, often develop and persist into adulthood (e.g., Greenfield & Marks, 2009). **Depression** has been linked to both **CM** and **CP** among a range of age groups and identified as a significant concern on college campuses (e.g., Alba-Delgado et al., 2013; Eisenberg et al., 2007). However, research on **CP** as an outcome of **CM** has neglected young adults in favor of middle-aged and older adults (Rosenbloom et al., 2017). Relationships between **CM**, **CP**, and **depression** as well as their functional consequences have yet to be explored in young adults.



Variables

- Explore relationships between **CM**, **CP**, and **depression** among college students.
- Gain a broad understanding of how the interaction of mental and physical health consequences of **CM** may impact undergraduate students.
- Implement resources that improve college outcomes for **CM** survivors.

## Purpose

## Research Questions

### Correlation

- 1) Does **CM severity** correlate with a) **pain frequency/chronicity**? b) **pain interference**?
- 2) Does **depression severity** correlate with a) **pain frequency/chronicity**? b) **pain interference**?

### Mediation/Moderation

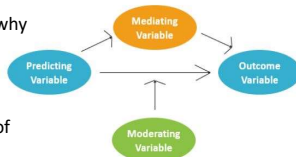
- 3) Is **pain frequency/chronicity** for students with a history of CM a) **mediated** by depression? b) **moderated** by depression?
- 4) Is **pain interference** for students with a history of CM a) **mediated** by depression? b) **moderated** by depression?

#### Mediation:

-Mediating variable accounts for how/why one variable predicts another

#### Moderation:

-Moderating variable interacts with predicting variable to impact strength of outcome variable



## Method

- **Quantitative**
- **Survey method**
- **Administration:**  
Online via Qualtrics
- **Population**  
Undergraduates at a midsized university in the Rocky Mountain region ages 18-24
- **Preliminary sample size:**  
N = 47
- **Desired/predicted total sample size:**  
N=100

## Measures

### CTQ-SF

(Childhood Trauma Questionnaire – Short Form)

### TSC-40

(Trauma Symptom Checklist-40, Depression subscale)

### SIC

(Symptoms of Illness Checklist, Pain subscale)

### SCL-90

(Symptom Checklist-90, Depression subscale)

## Preliminary Findings

### Correlation

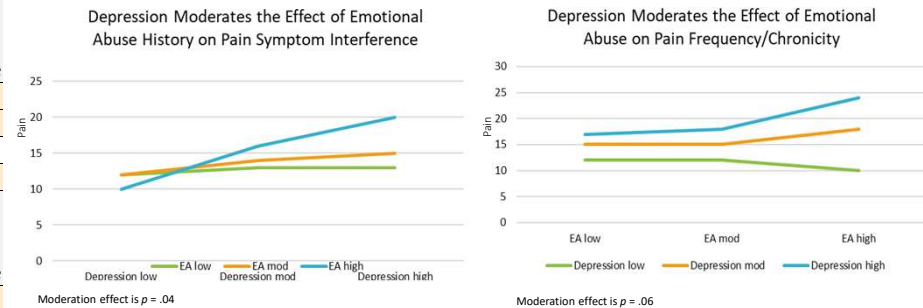
CM Predicts Pain Outcomes		SIC Pain Frequency/Chronicity	SIC Pain Interference
CTQ Total	$r=$	.362**	.403**
EA	$r=$	.468**	.553**
EN	$r=$	.286*	0.195
PA	$r=$	0.182	.390**
Depression Predicts Pain Outcomes		SIC Pain Frequency/Chronicity	SIC Pain Interference
TSC	$r=$	.553**	.514**
SCL	$r=$	.493**	.513**
CM Predicts Depression		TSC Depression	SCL Depression
CTQ Total	$r=$	.361**	.364**
EA	$r=$	.445**	.510**
EN	$r=$	.325*	0.343*

\*\*. Correlation is significant at the 0.01 level (1-tailed).

\*. Correlation is significant at the 0.05 level (1-tailed).

CTQ Total = CM Combined-type, EA = Emotional Abuse, EN = Emotional Neglect, PA = Physical Abuse, TSC = Trauma Symptom Checklist-40 Depression, SCL = Symptom Checklist-90 Depression, SIC = Symptoms of Illness Checklist Pain

### Mediation & Moderation



#### Mediation Analysis:

- **Depression** fully mediated the pathway between **emotional abuse** and **pain frequency/chronicity**; however, **depression** did not mediate the pathway between **emotional abuse** and **pain interference**.

#### Moderation Analysis:

- The effect of **emotional abuse** on **pain frequency/chronicity** was moderated by **depression**, but this was a trend with  $p = .06$ .
- However, there was a significant moderation effect of **depression** on the pathway between **emotional abuse** and **pain interference**.
- In both cases, the effect of **emotional abuse** on **pain** is greatest when levels of current **depression** are the highest.

## Discussion & Future Direction

### 1) Improving college outcomes

- **CM (emotional abuse)** predicts not only that pain will occur in a chronic fashion, but also that pain will interfere with the ability of students to function and their quality of life – this could negatively impact college outcomes.
- Universities should consider **depression** as a point of intervention.

### 2) Developmental Health Trajectories

- **Depression** could evolve over time from a construct that mediates to a construct that moderates **pain** outcomes (Karazsia & Berlin, 2018).
- **Depression** should be explored further as a mechanism for the development of chronic/frequently occurring **pain** in young adults with **CM (emotional abuse)** histories.
- **Depression** should be considered as a major point of intervention in early childhood to reduce risk of **pain** outcomes in young adulthood.
- It could be useful to screen young adults with pain for **CM** and **depression** for effective treatment.

### 3) Recommendations:

- Replication with a larger sample size and a questionnaire designed to assess interference college related activities.
- Pending full analysis, exploration of **depression-linked** resilience factor.

## References



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