

Relationship between childhood trauma and trust in healthcare providers and systems

Seint Kokokyi, M.A. and Bridget Klest, Ph.D.

University of Regina, Regina, SK, Canada



ABSTRACT

Adverse childhood events (ACEs) may lead to multiple medical and psychological problems, including posttraumatic stress symptoms. Both ACEs and posttraumatic stress symptoms may alter the ability to trust. It has been speculated that this mistrust or lack of trust may generalize to healthcare professionals. The current study investigated the association between ACEs, posttraumatic stress symptoms, trust in physicians, and trust in the medical system in a sample of 292 Canadian adults. ACEs predicted posttraumatic stress symptoms ($b=4.84, p<0.0001$), trust in physicians ($b=-0.89, p=0.001$), and trust in the medical system ($b=-1.52, p<0.001$). Posttraumatic stress symptoms also predicted trust in physicians ($b=-0.19, p<0.001$) and in medical system ($b=-0.25, p<0.001$). Two mediation analyses were conducted to examine whether posttraumatic stress symptoms mediate the relationship between ACEs and trust in physicians ($R=0.15, F[2, 292]=14.05, p<0.001$). The relationship between ACE and trust in the medical system was also mediated by posttraumatic stress symptoms ($R=0.11, F[2, 292]=18.58, p<0.001$). Implications will be discussed.

Introduction

- Adverse childhood events (ACEs) has been linked to increased risk factors for tobacco, alcohol, and drug use; higher prevalence of chronic disease (such as cardiovascular disease, cancer, and asthma); and poor mental health (such as insufficient sleep, mental distress, anxiety, and hopelessness)¹
 - Adults sexually assaulted as children are at risk of developing posttraumatic stress symptoms and posttraumatic stress disorder^{2,3}
 - There is a negative correlation between trust and posttraumatic stress symptoms in adult survivors of childhood sexual abuse³
 - Trauma survivors are likely to develop mistrust towards others⁴
 - For individuals who have been severely injured, informational and emotional support from their physicians leads to development or maintenance of trust⁵
- Research Questions*
- Does ACEs lead to reduced trust in physicians and the medical system?
 - Is this relationship mediated by posttraumatic stress symptoms?

Methods

- Online survey of 292 Canadian adults who have and who have not experienced traumatic stress
- Questionnaires included
 - Demographic and background questionnaire
 - Adverse Childhood Experiences Survey
 - Posttraumatic Stress Disorder Checklist for DSM-5
 - Trust in Physician Scale
 - Medical Mistrust Index
- Statistical analyses: multiple linear regression and mediation regression with trust in physicians and trust in the medical system as outcome variables
 - Controlled for: age, gender, total household income, and highest level of completed education
 - Non-mediation models
 - Predictor variables: ACEs scores and posttraumatic stress symptoms
 - Mediation models
 - Predictor variable: ACEs scores
 - Mediator: posttraumatic stress symptoms

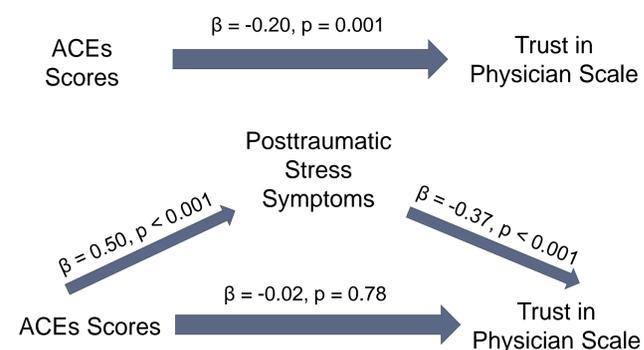
Results

Table 1. Descriptive statistics for variables used in subsequent analyses.

Factor	Mean (SD) or Proportion
Age	44.5 (15.1)
Gender (Female)	52.6%
Currently employed	55.5%
Total household income (>\$50,000)	64.8%
Highest level of completed education (post-secondary education or higher)	52.9%
ACEs Score	2.0 (2.2)
Proportion participants with at least one ACEs	64.5%
Posttraumatic stress symptoms	18.1 (21.0)
Participants with at least one posttraumatic stress symptom	80.21%
Trust in physicians	44.2 (10.2)
Trust in medical system	75.7 (15.7)

Results

Relationship between ACEs Scores and Trust in Physicians



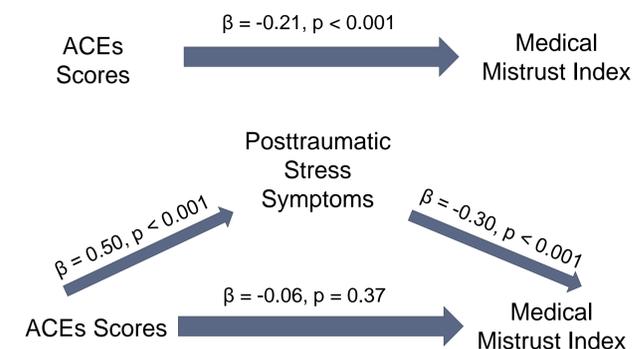
Unmediated model:

- $R = 0.26, R^2 = 0.07, F = 4.24, p < 0.001$
- ACEs scores predicts lower scores for Trust in Physician Scale

Mediated model:

- $R = 0.41, R^2 = 0.17, F = 9.41, p < 0.001$
- Relationship between ACEs scores and Trust in Physician Scale is completely mediated by Posttraumatic stress symptoms

Relationship between ACEs Scores and Trust in the Medical System



Unmediated model:

- $R = 0.35, R^2 = 0.12, F = 6.62, p < 0.001$
- ACEs scores predicts lower scores for Medical Mistrust Index

Mediated model:

- $R = 0.24, R^2 = 0.06, F = 3.53, p = 0.004$
- Relationship between ACEs scores and Medical Mistrust Index is completely mediated by Posttraumatic stress symptoms

Conclusions/Implications

- ACEs scores is associated with lower trust in physicians and lower trust in the medical system
- The relationship between ACEs scores and trust in physician is completely mediated by posttraumatic stress symptoms
- The relationship between ACEs scores and trust in the medical system is also completely mediated by posttraumatic stress symptoms
- Posttraumatic stress symptoms (such as negative view of the world, lower self-esteem, and loss of trust) may lead to lack of trust in physicians and the medical system
- Physicians must consider building trust with their patients to build better patient-doctor relationships

Limitations

- Results may not generalize to a population outside of Canada

References

- Anda, R. F. & Brown, D.W. (2010). The ACE Score and Health and Social Outcomes. In R. F. Anda & D. W. Brown (Eds.), *Adverse childhood experiences & population health in Washington: The face of a chronic public health disaster*, p. 56-126.
- Bowan, A. B., Foy, D. W., Rodriguez, N., & Ryan, S. (1994). Posttraumatic stress disorder in a clinical sample of adults sexually abused as children. *Child Abuse & Neglect*, 18, 51-61.
- Weninger, K., & Ehlers, A. (1998). Dysfunctional cognitions and adult psychological functioning in child sexual abuse survivors. *Journal of Traumatic Stress*, 11, 281-300.
- Gobin, R. L. & Freyd, J. J. (2013). The impact of betrayal trauma on the tendency to trust. *Psychological Trauma: Theory, Research, Practice, and Policy*, 6, 505-511.
- Ommen, O., Janssen, C., Neugebauer, E., Bouillon, B., Rehm, L., Rangger, C.,..., Pfaff, H. (2008). Trust, social support and patient type—associations between patients perceived trust, supportive communication and patients preferences in regard to paternalism, clarification and participation of severely injured patients. *Patient Education and Counseling*, 73, 196-204.

This study was funded by:
Saskatchewan Health Research Foundation

For more information contact:
Seint Kokokyi, kokokyis@uregina.ca

Social Context of Health, and Trauma Lab
<http://uregina.ca/~schtlab/>