

The Impact of Adverse Childhood Experiences on Physical Health in College Students

A Replication and Extension of the ACE Study

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Outline

- ❖ Research on adverse experiences in childhood and physical health in adulthood
- ❖ Why do we need to study ACE in college students?
- ❖ Findings
- ❖ Three explanatory models for the link between ACE and physical health

Adverse Childhood Experiences

(Felitti et al., 1998)

- ★ Physical Abuse
- ★ Psychological Abuse
- ★ Sexual Abuse
- ★ Physical Neglect
- ★ Emotional Neglect
- ★ Witnessing Maternal Battering
- ★ Household Mental Illness
- ★ Household Alcohol Abuse/ Substance Abuse
- ★ Household Criminal Activity
- ★ Parental Separation or Divorce

The Adverse Childhood Experiences (ACE) Study

- 52% reported exposure to at least one adverse childhood experience
- 25% of respondents reported exposure to two or more adverse childhood experiences
- 6.2% reported four or more

Potential Longitudinal Impact Of ACE

(Ryder, 2014)

Outcomes Of Healthy Attachment

- ★ Emotional Regulation
- ★ Impulse Control
- ★ Creation Of A Stable Sense Of Self
- ★ Ability To Maintain Healthy Relationships

Outcomes Of Unhealthy Attachment

- ★ Violence/Aggression As Victim
- ★ Violence/Aggression As Victimizer
- ★ Desire For Social Connection And Attachment
But No Skills

ACE and Health

- ☆ Cancer
- ☆ Chronic Obstructive Pulmonary Disease
- ☆ Liver Disease
- ☆ Autoimmune Diseases
- ☆ Cardiovascular disease
- ☆ Chronic pain syndromes
 - Irritable Bowel Syndrome
 - Fibromyalgia

(Felitti et al., 1998; Anda et al., 2008; Brown et al., 2009; Chartier et al., 2010; Dube et al., 2009, Rich-Edwards et al., 2012; Felitti, 2009)

ACE and Health Risk Behaviors

- ☆ Alcohol dependence & abuse
- ☆ Smoking
- ☆ Drug Use
- ☆ Obesity
- ☆ Sexual health-risk behaviors

(Anda et al., 1998; Chapman et al., 2011; Edwards et al., 2004; Hillis et al., 2000)

Why Study ACEs in College Students?

- ★ Emerging Adulthood
- ★ Substance use patterns
- ★ Early Age-of-Onset vs. Late Age-of-Onset Health Problems

Limitations of the Existing Research

- ☆ Cumulative effects of multiple aversive experiences

- ☆ Research on college populations
 - Trauma experiences across the lifespan
 - Impact of post-traumatic stress disorder
Symptoms
 - **NOT** traumatic maltreatment in childhood

(Anders et al., 2012; Flood, 2009; Frazier et al., 2009; Runtz, 2002; Rutter, 2013)

The Current Study

Prevalence of Adverse Experiences

ACE	Frequency	Percent
0	52	24.3
1	48	22.4
2	42	19.6
3	24	11.2
4	24	11.2
5	15	7.0
6	6	2.8
7	1	.5
8	2	.9

Prevalence of Adverse Experiences

- ★ 24.3% experienced zero ACE
- ★ 75.6% experience one or more
- ★ 53.2% experienced 2 or more
- ★ 22.4% experienced 4 or more

Health Conditions

Neurological

Eye/ Ear/

Nose/ Mouth

Skin

Digestive

Surgeries

Cancer

Women's Health/

Men's Health

Musculoskeletal Injuries

Autoimmune Disorders

Lungs

Cardiac

Results

Pearson Correlation

	Health Conditions Total
Age	.039
Sex	.291
ACE Score	.325
Health Risk Behaviors	.005

Results (cont'd)

Sig. (1-tailed)

	Health Conditions Total
Age	.343
Sex	.001*
ACE Score Total	.000*
Health Risk Behaviors	.479

Results cont'd

Model	Variables Entered
1	Sex, Age
2	ACE Score Total
3	Health Risk Behavior

Model	R	R Square
1	.294	.087
2	.408	.166
3	.408	.166

Conclusions

- Age is not significantly correlated with Health Conditions
- Sex is significantly correlated with Health Conditions
 - Women are healthier...
... this makes sense, as women seek out medical care at higher rates than men

Conclusions

ACE Score is significantly correlated with Health Conditions

- controlling for age and sex

ACE score predicts Health Conditions

When Health Risk Behaviors are added to the model there is no significant change. Health Risk Behaviors do not mediate this relationship.

Explanatory Models

★ Biological Model

★ Psychological Model

★ Behavioral Model

(Danese et al., 2012; Kendall-Tackett, 2007; Kendall-Tackett, 2009; Somiani et al., 2011; Taylor et al., 2011; Yehuda et al., 1995)

Questions