

Examining Exposure to Adverse Childhood Experiences (ACEs) among South Carolina Adults

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ACEs are traumatic events a child experiences before age 18 that may have a lasting effects on well-being in adulthood.

Objectives

To examine ACE exposure among South Carolina (SC) adults in terms of 1) geographic differences (rural versus urban residence), 2) adult physical and mental health status, and 3) adult alcohol use.

Methods

Study population

- Adults ≥18 years
- SC residents
- Non-institutionalized
- With phone access

Analytic methods

- Descriptive statistics
- Bivariate analyses
- Logistic regression

Data sources

- 2014 and 2015 SC Behavioral Risk Factor Surveillance System (BRFSS) data
- ACE survey module (11 questions)

Variables examined

- ACE exposure (number and type)
- Rurality (urban influence codes)
- Self-reported alcohol use
- Self-reported physical and mental health

Study sample

22,634

- 2014-2015 SC BRFSS sample

19,843

- Responded to ACEs module

18,176

- Complete data for rural/urban

15,638

- Complete data for P/M health status

7,938

- Complete data for alcohol use



Results

Figure 1. ACE exposure among SC adults, 2014-15 BRFSS data

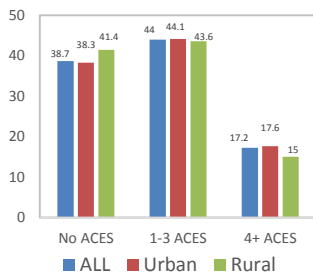


Table 1. ACE most frequently reported by SC respondents to the BRFSS survey, 2014-2015

ACE	Urban	Rural
Separation or divorce	30%	28%
Emotional abuse	30%	26%
Alcohol misuse	25%	22%

Table 2. Increased odds of experiencing self-reported poor physical and mental health in adulthood following ACE exposure in childhood, as reported by SC respondents to the BRFSS survey, 2014-2015

ACE exposure	Odds ratio (point estimate) ¹	
	Poor physical health	Frequent mental distress
No ACEs	Referent	Referent
Household dysfunction only	1.37 (1.36-1.38)	1.69 (1.68-1.71)
Household dysfunction + Emotional/Physical abuse	1.91 (1.89-1.92)	2.87 (2.85-2.90)
Household dysfunction + Emotional/Physical abuse + Sexual abuse	3.63 (3.60-3.66)	6.01 (5.95-6.10)

¹ Bold indicates significant findings.

Table 3. Logistic regression predicting heavy drinking by type of ACE & gender, among SC residents responding to BRFSS questions related to the experience of ACEs and alcohol misuse in adulthood, 2014-2015

ACE exposure	Adjusted odds ratios (95% CI) ¹	
	Men (n = 3,934)	Women (n = 4000)
No ACEs	Referent	Referent
1 to 3 ACEs	1.19 (1.17-1.20)	1.14 (1.11-1.16)
Four or more ACEs	1.26 (1.24-1.28)	1.81 (1.76-1.86)

¹ Model was adjusted for age group, race/ethnicity, educational attainment, income, and rurality. Bold indicates significant findings.

Discussion/Conclusions

- A significant proportion of the SC population has experienced at least one ACE.
- Although rural residents may have slightly lower ACE exposure than urban, they historically have fewer support services to help mitigate ACE effects.
- Men and women with four or more ACEs had greater odds of reporting binge and heavy drinking than their counterparts.
- The presence of sexual abuse in childhood increased the odds of reporting poor health and mental distress, supporting the idea that some ACEs may have stronger associations to long term health outcomes than other ACEs.
- Multigenerational strategies focused on building skills and attachment in both parents and children could result in reduced transmission of ACEs in families.

Public policy and program applications

- **Fund** infrastructure to provide ACE-related programs and services in SC communities.
- **Promote** policies and programs that facilitate access to social, mental, medical, or public health services.
- **Engage** health care providers as advocates for an ACE assessment in any comprehensive pediatric medical exam.
- **Expand** evidence-based home visiting and the *Quality through Technology and Innovation in Pediatrics (QTIP)* program in SC.
- **Increase** availability and access to parenting skills programs and pediatric care in rural communities.

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