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**Title**

*Association of Adverse Childhood Experiences and gun violence exposure in North Carolina adolescents/young adults*

**Priority 1 (Research Category)**

Child and adolescent health

**Presenters**

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**Abstract**

Context: Adverse Childhood Experiences (ACEs) are a set of early life events associated with toxic stress and long-term health consequences. The more ACEs a person has experienced, the greater their risk of physical and mental illness later in life. It has been proposed that gun violence, an increasingly common experience for children in the United States, should be considered an ACE due to its lifelong physical and psychosocial impacts. The SaFETy Score is a set of four questions that can be used in clinical settings to predict an adolescent's risk of gun violence exposure.

Objective: This study evaluated the relationship between ACEs and lifetime gun violence exposure, as well as future gun violence risk as measured by the SaFETy Score.

Study Design and Analysis: Longitudinal quantitative study. Multivariate linear regression with gun violence exposure and SaFETy score as the independent variables and ACE score as the dependent variable.

Setting: Four semi-urban to rural primary care practices in eastern North Carolina.

Population Studied: Patients age 14-24 at participating practices. .

Intervention/Instrument: Surveys at baseline and six months post-baseline assessed patient demographics, SaFETy score, ACE score, violence exposure, peer influences, and parental support.

Outcome Measures: ACE score, SaFETy score, and lifetime gun violence exposure

Results: The majority of the patients were female (69%), non-Hispanic or Latinx (73%), and had at least a high school diploma or GED (63%). In terms of race, 45% were white and 36% were Black or African-American. The majority (58%) had an ACE Score of one to three, which indicates intermediate risk for adverse health outcomes. One-quarter (25%) had an ACE score of four or more, indicating a high level of risk. Over half (55%) reported being exposed to gun violence in their lifetime. ACE Score was associated with both lifetime gun violence exposure and SaFETy Score ( $p=0.001$  for both).

Conclusions: In this study, ACEs were correlated with both lifetime gun violence exposure and SaFETy score, suggesting that gun violence exposure is more common in rural and suburban North Carolina youth who have also experienced other childhood traumas.