# **C**RUSH UNIVERSITY

The Impact of Adverse Childhood Experiences on Cognition in Older African Americans: An Integrated Literature Review Karen Lowe Graham, MA; Olimpia Paun, PhD, PMHCNS-BC, FGSA; Todd Ruppar, PhD, RN, GCNS-BC, FAHA, FAAN



## Background

- In 1998, Adverse Childhood Experiences (ACEs) were defined as traumatic childhood events experienced between birth and age 18 that vary in severity and may regularly occur in a child's family or home. The three major categories include:
- 1. Abuse (emotional, physical, and sexual),
- 2. Household challenges (domestic violence, substance abuse, mental illness, divorce, incarceration), and
- 3. Neglect (emotional and physical)
- From 2000 to present, the definition of ACEs was expanded to include community-related traumatic events (e.g. gun violence, poverty/low socio-economic status, bullying, community level stressors, history of enslavement)
- ACEs associated with cognitive changes, especially in older adults, include:
  - 1. Emotional abuse,
  - 2. Physical/sexual abuse, and
  - 3. Low socio-economic status
- However, research has not been synthesized on the associations between ACEs and cognitive changes among the older African American population

### Purpose

To examine and synthesize the evidence on associations between ACEs and cognitive changes in older African Americans

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# Methods

#### Search strategy

• We searched the PubMed, CINAHL Complete, and Cochrane Database of Systematic Reviews databases, initially using the MeSH terms "older Blacks", "African Americans" and "ACEs" and we then expanded the search to "older African Americans", "adverse childhood experiences" and "Alzheimer's Disease"

#### Inclusion criteria

- Studies which analysed the relationship between ACEs and cognition
- Peer-reviewed articles written in English
- Published between 2008 and 2020
- Blacks/African Americans only or mixed samples which included Blacks/African Americans
- Adults aged 50 and older

#### Study Screening and Data Extraction

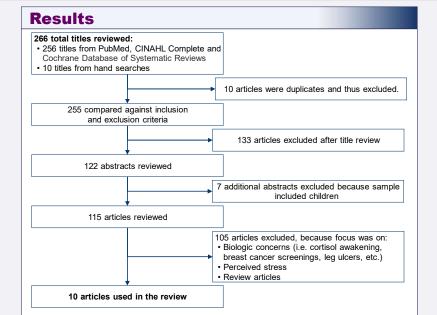
- Titles and abstracts were reviewed by two authors using Covidence<sup>©</sup>, an online literature review platform
- Extracted data included: author name(s), article title, year of publication, study design, level of evidence, sample size and characteristics, ACEs assessed/measured, cognitive domains assessed/measured, and study findings

#### **Risk of Bias Assessment**

 The Joanna Briggs Critical Appraisal Checklist for Cohort Studies

#### Analysis

- Descriptive statistics of study characteristics
- Analyzed study findings using a narrative descriptive approach



- All eligible studies were rated at a Level 3 for significance based on the Johns Hopkins Nursing Evidence Practice Standardized Scale
- All were longitudinal studies or secondary data analyses
- Four ACEs (physical, sexual, and verbal abuse along with low socio-economic status) are associated with impaired cognition in older African Americans
- Four gaps were identified:
- oLack of older adult participants in research investigating ACEs
- oLack of exclusively African American samples of participants in studies examining the relationship between ACEs and cognition
- Lack of consensus about what specific ACEs contribute to changes in cognition in older adults
- Lack of information about successful interventions created to prevent and mitigate the effects of ACEs in the older adults

## Conclusion

- Physical, sexual, and verbal abuse, as well as low socioeconomic status are associated with cognitive changes in older African Americans
- Further research needed to achieve consensus about additional ACEs which may contribute to cognitive changes in this population
- Future researchers should develop strategies to develop trusting relationships with potential African American research participants