**Supplemental Material**

**Sensitivity Analyses**

 **Household dysfunction versus abuse.** We separated the combined ACE measure into household dysfunction and abuse. Household dysfunction was a sum score of items 1 through 8. Abuse was measured by item 9 alone (abuse, physical or sexual). We reran the mediation model for each predictor in the full sample and stratified by race (see Supplementary Table 5). There was a negative indirect effect between household dysfunction and global cognition through depressive symptoms in the full sample (*β*=-.042, CI [-.069, -.019]), in Black participants (*β*=-.076, CI [-.131, -.030]), and in White participants (*β*=-.034, CI [-.072, -.002]). These effects were numerically larger than the effects in the original models. There were no indirect effects through systolic blood pressure and no indirect effects between abuse and global cognition.

 **Season of testing.** The CESD-10 only assess depressive symptoms over the past week, and depressive symptoms have been suggested to vary by season (O'Hare, O'Sullivan, Flood, & Kenny, 2016). Therefore, season of testing was added as a covariate. Seasons were defined as following: Spring: March, April, & May; Summer: June, July, & August; Fall: September, October, & November; Winter: December, January, & February. Results did not differ from the original findings. Specifically, there was a negative indirect effect between ACEs and global cognition through depressive symptoms in the full sample (*β*=-.040, 95% CI [-.067, -.016]). In race-stratified models, there was a negative indirect effect through depressive symptoms in Black participants (*β*=-.075, 95% CI [-.126, -.030]), but not White participants. Furthermore, depressive symptoms did not significantly differ between participants that were tested in the winter (M=8.83) and participants that were tested in the summer (M=7.66, Cohen’s d=.19).

 **Antihypertensive medications.** Participants self-reported all medications they were taking. Antihypertensive medications were coded based on guidelines from the Food and Drug Administration (U.S. Food & Drug Administration, 2021). A binary variable capturing antihypertensive medication use was created (0=no antihypertensive medications; 1=at least one antihypertensive medication). Two sensitivity analyses were conducted in the full sample and stratified by race: (1) Antihypertensive medication use was included as a covariate, and (2) antihypertensive medication use was included as a moderator in a moderated mediation model. When including antihypertensives as a covariate, results did not differ from the original findings. There was a negative indirect effect between ACEs and global cognition through depressive symptoms in the full sample (*β*=-.040, 95% CI [-.065, -.017]) and in Black participants (*β*=-.078, 95% CI [-.013, -.034]), but not White participants. There were no indirect effects through systolic blood pressure. In the moderated mediation models, antihypertensives did not moderate the associations between ACEs, depressive symptoms, systolic blood pressure, and global cognition in any sample.

Supplementary Table 1

*Neuropsychological test components which comprise each cognitive domain factor score.*

|  |  |
| --- | --- |
| Cognitive Domain | Neuropsychological Test Components |
| Episodic Memory | CERAD Word Lista — Learning Trials |
| CERAD Word List — Delay Trial |
| CERAD Word List — Recognition Trial |
| Craft Storyb — Immediate Trial, Verbatim Score |
| Craft Story — Delay Trial, Verbatim Score |
| Benson Complex Figureb — Delay Trial |
| Benson Complex Figure — Recognition Trial |
| Executive Function | Stroopc — Color-Word Trial |
| Number Spanb — Backwards Test |
| Color Trailsd — Test 2, Completion Time |
| Processing Speed | Color Trails — Test 1, Completion Time |
| Symbol Digit Modalities Teste |
| Stroop — Color Trial |
| Language | Letter Fluencyb |
| Category Fluencyb |
| Multilingual Naming Testb  |
| Visuospatial Functioning | Montreal Cognitive Assessmentf — Cube Test |
| Judgement of Line Orientationg |
| Benson Complex Figure — Immediate Trial |

*Note*. CERAD = Consortium to Establish a Registry for Alzheimer’s Disease.

a = Fillenbaum et al., 2008, b = Weintraub et al., 2009, c = Golden & Freshwater, 1978, d = D’Elia, Satz, Uchiyama, & White, 1994, e = Smith, 1982, f = Nasreddine et al., 2005, g = Benton et al, 1994.

Supplementary Table 2

*Breakdown of ACE endorsements in the full sample and stratified by race.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Full Sample*(N=418)* |  | White Participants*(n=210)* |  | Black Participants*(n=208)* |  |
| ACE Item | N | % |  | N | % |  | N | % | Effect Sizea |
| Parents were separated or divorced | 149 | 35.6 |  | 50 | 23.8 |  | 99 | 47.6 | 0.25\* |
| Parent remarried | 98 | 23.4 |  | 43 | 20.5 |  | 55 | 26.4 | 0.07 |
| Serious illness of a family member | 172 | 41.1 |  | 89 | 42.4 |  | 83 | 39.9 | 0.03 |
| Death of a parent | 68 | 16.3 |  | 25 | 11.9 |  | 43 | 20.7 | 0.12\* |
| Witnessed domestic violence | 136 | 32.5 |  | 58 | 27.6 |  | 78 | 37.5 | 0.11\* |
| Substance abuse by a family member | 132 | 31.6 |  | 64 | 30.5 |  | 68 | 32.7 | 0.02 |
| Loss of job by a parent | 89 | 21.3 |  | 52 | 24.8 |  | 37 | 17.8 | 0.09 |
| Parent had to go to jail | 29 | 6.9 |  | 7 | 3.3 |  | 22 | 10.6 | 0.14\* |
| Abuse (physical or sexual) | 87 | 20.8 |  | 53 | 25.2 |  | 34 | 16.3 | 0.11\* |

*Note*. ACEs = adverse childhood experiences.

a Cramér’s V.

\* *p* < 0.05.

Supplementary Table 3

*Breakdown of cumulative ACE measure in the full sample and stratified by race.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Full Sample*(N=418)* |  | White Participants*(n=210)* |  | Black Participants*(n=208)* |
| ACE Score | N | % |  | N | % |  | N | % |
| 0 | 91 | 21.8 |  | 53 | 25.2 |  | 38 | 18.3 |
| 1 | 77 | 18.4 |  | 48 | 22.9 |  | 29 | 13.9 |
| 2 | 68 | 16.3 |  | 32 | 15.2 |  | 36 | 17.3 |
| 3 | 75 | 17.9 |  | 29 | 13.8 |  | 46 | 22.1 |
| 4 | 50 | 12.0 |  | 17 | 8.1 |  | 33 | 15.9 |
| 5 | 29 | 6.9 |  | 17 | 8.1 |  | 12 | 5.8 |
| 6 | 20 | 4.8 |  | 9 | 4.3 |  | 11 | 5.3 |
| 7 | 7 | 1.7 |  | 5 | 2.4 |  | 2 | 1.0 |
| 8 | 1 | 0.2 |  | 0 | 0 |  | 1 | 0.5 |
| 9 | 0 | 0 |  | 0 | 0 |  | 0 | 0 |

*Note*. ACEs = adverse childhood experiences.

Supplementary Table 4

*Post hoc analyses – Indirect associations between ACEs and individual cognitive domains through specified mediators.*

|  |  |  |
| --- | --- | --- |
|  |  | Mediator |
|  |  | Depressive Symptoms |  | Systolic Blood Pressure |
| Outcome |  | Effect | SE | 95% CI |  | Effect | SE | 95% CI |
| Episodic Memory | Full Sample | -.041 | .013 | -.070, -.018 |  | .000 | .002 | -.004, .005 |
| Black Participants | -.072 | .024 | -.124, -.029 |  | .004 | .008 | -.008, .024 |
| White Participants | -.032 | .019 | -.071, .001 |  | .006 | .009 | -.008, .030 |
| Executive Function | Full Sample | -.040 | .013 | -.066, -.017 |  | .000 | .002 | -.004, .005 |
| Black Participants | -.073 | .024 | -.124, -.030 |  | .004 | .008 | -.008, .026 |
| White Participants | -.031 | .018 | -.070, .001 |  | .004 | .009 | -.010, .027 |
| Processing Speed | Full Sample | -.037 | .012 | -.061, -.016 |  | .000 | .002 | -.005, .005 |
| Black Participants | -.064 | .022 | -.111, -.024 |  | .003 | .007 | -.009, .023 |
| White Participants | -.029 | .017 | -.065, .002 |  | .001 | .008 | -.014, .019 |
| Language  | Full Sample | -.037 | .012 | -.063, -.015 |  | .000 | .003 | -.006, .006 |
| Black Participants | -.074 | .025 | -.128, -.030 |  | .008 | .011 | -.009, .034 |
| White Participants | -.025 | .016 | -.060, .002 |  | .002 | .008 | -.013, .023 |
| Visuospatial Functioning | Full Sample | -.038 | .012 | -.063, -.016 |  | .000 | .002 | -.004, .005 |
| Black Participants | -.069 | .024 | -.120, -.027 |  | .004 | .008 | -.008, .025 |
| White Participants | -.030 | .018 | -.067, .001 |  | .005 | .009 | -.009, .028 |

*Note.* Models were adjusted for age, sex/gender, race (full sample), parental education, and childhood health. ACEs = adverse childhood experiences, effect = completely standardized indirect effect, SE = bootstrap standard error.

Supplementary Table 5

*Indirect associations between household dysfunction and global cognition and abuse and global cognition through specified mediators.*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Household Dysfunction |  | Abuse (physical or sexual) |
| Mediator | Effect | SE | 95% CI |  | Effecta | SE | 95% CI |
|  | *Full Sample* |
| Depressive Symptoms | -.043 | .013 | -.069, -.019 |  | -.025 | .028 | -.084, .029 |
| Systolic Blood Pressure | .000 | .002 | -.004, .005 |  | -.003 | .008 | -.020, .013 |
|  | *Black Participants* |
| Depressive Symptoms | -.076 | .026 | -.131, -.030 |  | -.047 | .057 | -.172, .050 |
| Systolic Blood Pressure | .005 | .009 | -.008, .029 |  | -.002 | .018 | -.040, .037 |
|  | *White Participants* |
| Depressive Symptoms | -.034 | .018 | -.072, -.002 |  | -.014 | .041 | -.094, .070 |
| Systolic Blood Pressure | .003 | .008 | -.009, .023 |  | .007 | .024 | -.037, .062 |

*Note.* Models were adjusted for age, sex/gender, race (full sample), parental education, and childhood health. ACEs = adverse childhood experiences, effect = completely standardized indirect effect, SE = bootstrap standard error

aStandardized coefficients are in partially standardized form due to dichotomous predictor.

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