# ACEs, Adolescence, and the Importance of Social Supports

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#### Introduction

Adverse Childhood Experiences (ACEs) are potentially traumatic events that occur during childhood. A few examples include abuse, financial instability, and familial instability (Centers for Disease Control and Prevention, 2024). Experiencing multiple ACEs is found to have a cumulative effect on mental health outcomes when the child reaches adulthood (Hughes et al., 2017). However, protective factors can lessen the negative effects associated with ACEs (The Minnesota Department of Health, 2023). Our study focuses on two protective factors: after school activities and participation in family routines. Participation in after school activities and leisure activities has been shown to help with positive youth development (Morrissey et al., 2005). Along with this, family functioning and routines have been found to play a vital role in promoting mental well-being in adolescents (Koome et al., 2012). The purpose of this study was to examine the relationship between mental health outcomes and participation in after school activities and family routines among adolescents who have experienced multiple ACEs.

Hypothesis: We hypothesized that adolescents who engaged in after school activities and family routines would have better mental health outcomes.

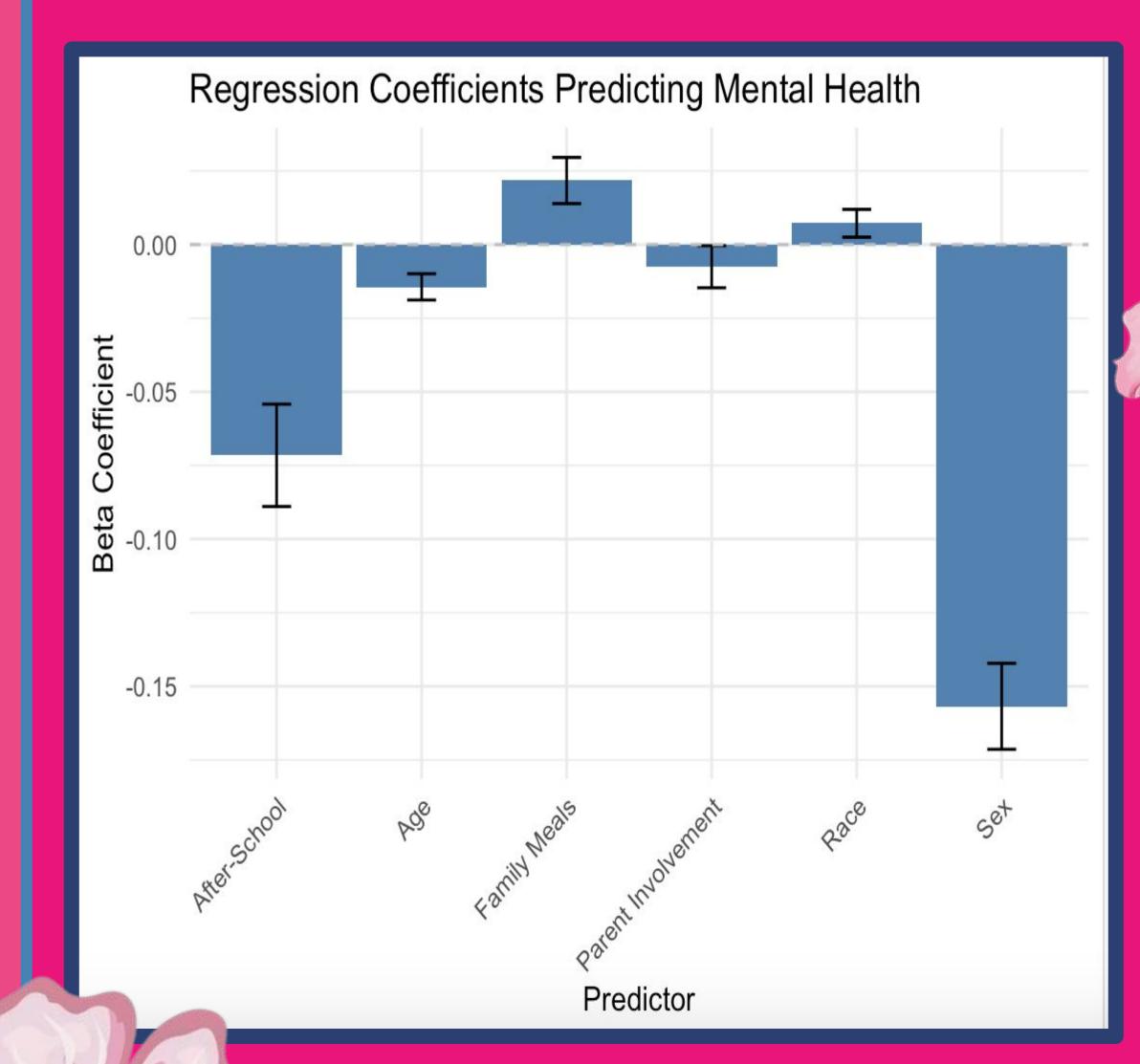
# Methodology

#### Sample:

- Data was obtained from the Child and Adolescent Health Measurement Initiative, using the 2023 National Survey of Children's Health (NSCH).
  - The sample focused on a subpopulation of adolescents (ages 12-17) with ≥ 2 ACEs from the full 2023 NSCH dataset.

#### <u>Measures</u>:

- After-School Programs
  - Participants were asked a series of yes or no questions indicating which activities their child had participated in. (*M*=1.29, *SD*=.453)
  - Children participated in sports teams or sports lessons after school or on weekends,
  - Children participated in clubs or organizations after school or on weekends
  - Children participated in any other organized activities or lessons, such as music, dance, language or other arts,
  - If children participated in any of these activities, they met measure criteria.



# Bibliography











# Methodology

- Family Involvement:
- Participants were asked how many days a week they had meals together and were given the following options: (M=2.68, SD=.948)
  - 0 days
  - 1-3 days
  - 4-6 days
  - Everyday
- Parents participated in their child's event or activities (M=1.98, SD=1.113)
  - "Always"
  - "Usually"
  - "Sometimes"
  - "Rarely or never"
- Mental Health:
  - Participants were asked whether or not their child has been diagnosed with depression or anxiety (M=1.61, SD=.489)
    - "Currently has condition"
  - "Does not have condition"

Using SPSS, we conducted a multiple linear regression to identify associations between participation in after school activities & family involvement and mental health in adolescents with 2 or more ACEs.

#### Analysis

We used multiple linear regression to test if after school programs or family routines significantly predicted better mental health scores, specifically anxiety and depression when controlling for age, sex and demographics. The overall model was statistically significant,  $R^2$ =.037, F(6,4309)=27.890, p<.001, adjusted  $R^2$ =.036.

The after-school programs (B=-.066, t(4309)=-4.118,p<.001) and family meals together (B=.042, t(4309)=2.779,p=.005) significantly predicted better mental health outcomes.

However, parental involvement in their child's events or activities (B=-.017, t(4309)=-1.054,p=.292) did not significantly predict better mental health outcomes. Additionally, race is not a significant predictor (B=.023, t(4309)=1.535,p=.125), while age (B=-.049, t(4309)=-3.220,p=.001 and sex (B=-.161, t(4309)=-3.220,p=.001) were significant predictor.

#### Discussion

We hypothesized that participation in after-school activities and having meals together as a family would be associated with better mental health outcomes, and found a significant relationship. (Morrissey et al., 2005) found how afterschool programs affect positive youth development, our results show that these results are also applicable to adolescents who have experienced multiple ACEs.

We hypothesized that parental involvement in their child's activities would be associated with better mental health outcomes, however, no significant relationship was found. This could be due to the fact that some ACEs directly involve negative experiences with the parent and how the parent's presence may be distressing for the child.

Although the model has a low ( $R^2$ =.037), this is consistent with prior research using cross sectional social survey data (Hamilton et al., 2015; Ozili 2023).

Of the two variables that proved to be significant, after-school activities and having meals as a family, after-school activities had a stronger association with better mental health outcomes, indicating that participation in after-school activities is a strong mediation against the adverse effects of ACEs.

Therefore, allocating more funds towards after-school programs is likely to have a positive effect on adolescents who have experienced multiple ACEs.

### Limitations

Our study only focused on the number of ACEs experienced and did not make any distinctions between different kinds of ACEs. Certain ACEs may increase or decrease the effectiveness of after-school activities and family involvement. No distinction was made between types of after-school activities as well. Certain activities may be more or less effective than others.

The data was obtained from a self-reported survey. When data is self-reported, participants may intentionally or unintentionally provide inaccurate responses due to factors such as social desirability bias and memory errors.

Although we identified that after-school activities are associated with better mental health outcomes, we did not identify what makes them effective. Further research into what makes after-school activities effective can help improve them further.



