

Adverse Childhood Experience as a Predictor of Food Choice: A Discussion of Methodology and Literature

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Background

- The link between adverse childhood experiences (ACEs) and poor long-term health outcomes is well-established.
- Children exposed to one ACE are often exposed to more than one ACE.
- ACEs aggregate and have proportionally worse health outcomes with increasing number, ultimately leading to premature death.

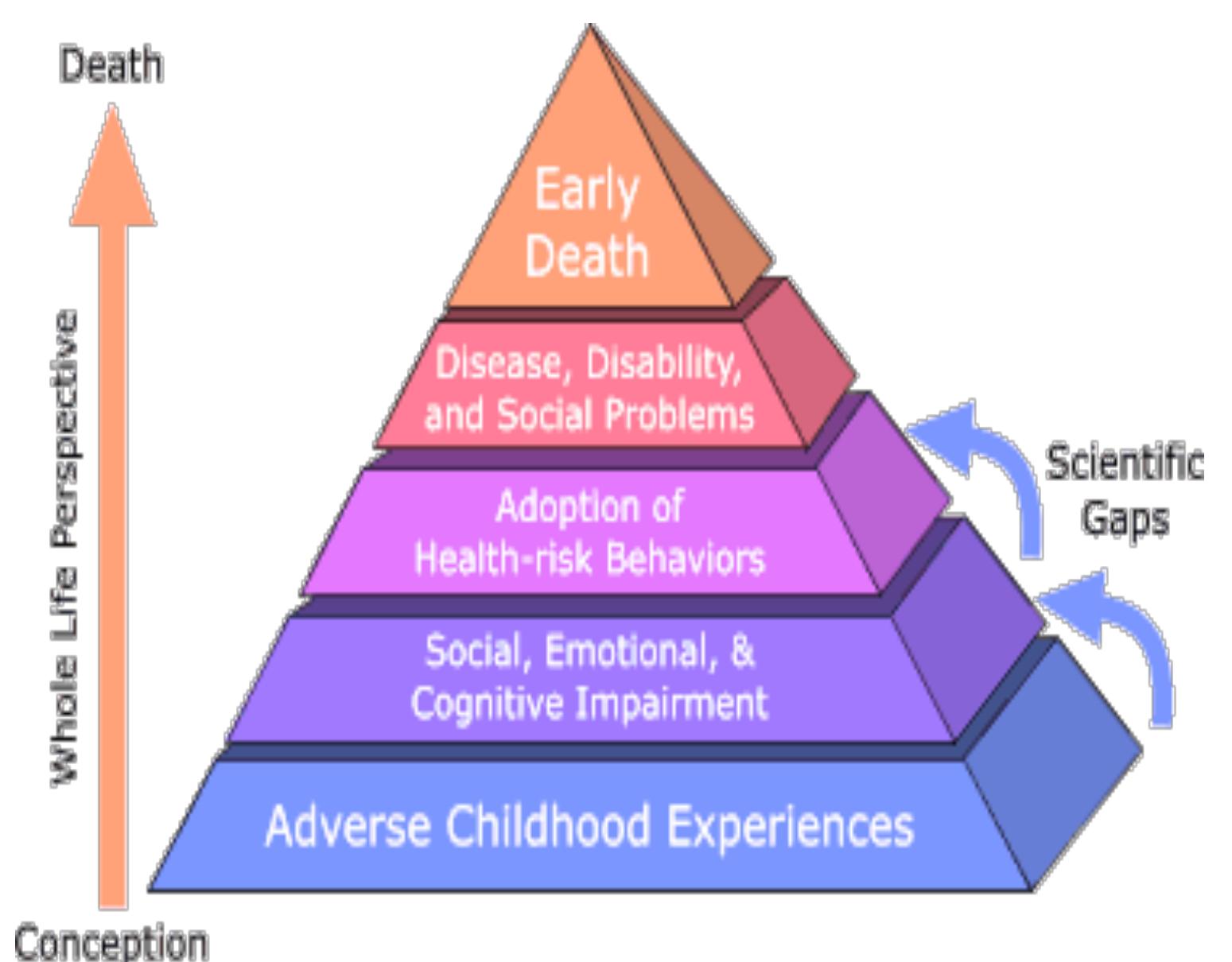


Figure 1. The ACE pyramid. This illustrates the process by which ACEs lead to premature death.

- ACEs include physical and emotional neglect, physical and sexual abuse, household substance abuse and violence, etc.
- ACEs are strongly correlated with socioeconomic status (SES).
- There is an unknown relationship between ACEs and body image in variable SES in Hispanic adolescents.
- There is an unknown relationship between ACEs and food choice/caloric intake in Hispanic adolescents.

Objective

- Characterize the relationship between ACEs, eating behavior, and body image in Hispanic adolescents

Methodology

- Cohort (n=150):
 - Hispanic adolescents
 - Ages 15-21
 - Born in the US
 - BMI of 18.5-40 kg/m²



- Phone screening was used to verify eligibility.



- Measurements taken during study:
 - Anthropometrics
 - Body fat percentage (BF%)
 - Resting metabolic rate (RMR)
 - Series of surveys including ACE score
 - Salivary cortisol

- Participants were randomized to either a high or low social status condition for a modified game of Monopoly™ against a confederate player.
 - High social status: plays with Rolls-Royce piece, starts with \$2000, receives \$200 each time around board, rolls both die each turn
 - Low social status: plays with shoe piece, starts with \$1000, receives \$100 each time around board, rolls one die each turn
- Participants consume *ad libitum* buffet lunch after game of Monopoly™
- Research team measures amounts of food/drink consumed

Hypotheses

- Participants with lower ACE scores will engage in healthier eating behavior and demonstrate healthier body image relative to participants with higher ACE scores.
- In the low social status condition, participants with lower ACE scores will consume less calories, saturated fat, and sodium relative to participants with higher ACE scores.

Significance

- This study utilizes a unique paradigm of experimentally manipulated social status and includes robust measures including:
- Objectively measured food intake
- Objectively measured physical activity
- Resting metabolic rate
- 24-hour energy balance
- Various psychosocial measures
- Salivary cortisol
- Perceptions of pride, powerlessness, and stress

Next Steps

Continue study recruitment

Continue collecting social status and ACE data

Analyze data and report results upon study completion

References available on request.