

## Social determinants of health, adverse childhood experiences, and maternal-infant relationship

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### Background:

Low strength of maternal-infant relationship (MIR) is consistently associated with early childhood obesity risk. Because obesity often persists once it develops, primary prevention is needed early. Home visiting programs support families with social determinants of health (SDH) and adverse childhood experiences (ACEs); SDH and ACEs contribute to health inequities. Addressing SDH and ACEs may facilitate improvements in MIR and ultimately mitigate early childhood obesity risk. Limited to no research has examined the association between ACEs, SDH, and MIR. In the context of a national, evidence-based home visiting program, we asked: are SDH and ACEs associated with low MIR?

### Methods:

This sample includes 6,972 children ages 0–<24 months enrolled in the Parents as Teachers home visiting program across the United States from sites using the Life Skills Progression (LSP) instrument through February 2020. Low MIR is dichotomized from a 1-5 scale, with low scores reflecting low nurturing, bonding, and responsiveness. We used the literature, theory, and a stepwise logistic regression model-building process to identify a parsimonious model for MIR.

### Results:

Preliminary results reflect 34.2% Hispanic or Latino, 22.7% non-Hispanic Black, 35.3% non-Hispanic Other race; 83.9% low income; 36.9% low education; and 13.4% mothers scoring low for MIR. Notable findings from modeling include: physical ACEs, captured here as child abuse or neglect (OR: 5.01, 95% CI: 4.10-6.11); mental illness ACEs, captured here as a mother/parent with mental illness (OR: 1.31, 95% CI: 1.05-1.63), or the mother/parent treated violently (OR: 1.95, 95% CI: 1.56-2.40). Protective associations include mothers' support of child development and self-esteem scores.

### Conclusions:

Understanding the complex interplay of SDH, ACEs, and MIR is critical for developing interventions that address “upstream” family characteristics in order to mitigate early childhood obesity risk. ACEs play a predominant role.

### Key messages:

- This is the first known study to concurrently examine maternal-infant relationship, social determinants of health, and adverse childhood experiences.
- Home visiting programs may be critical partners in addressing these needs given their reach.