

How Does Family Closeness in Childhood Moderate the Association between Family Income and Young Adult Depression?

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Backgrounds

The Goal of this Research

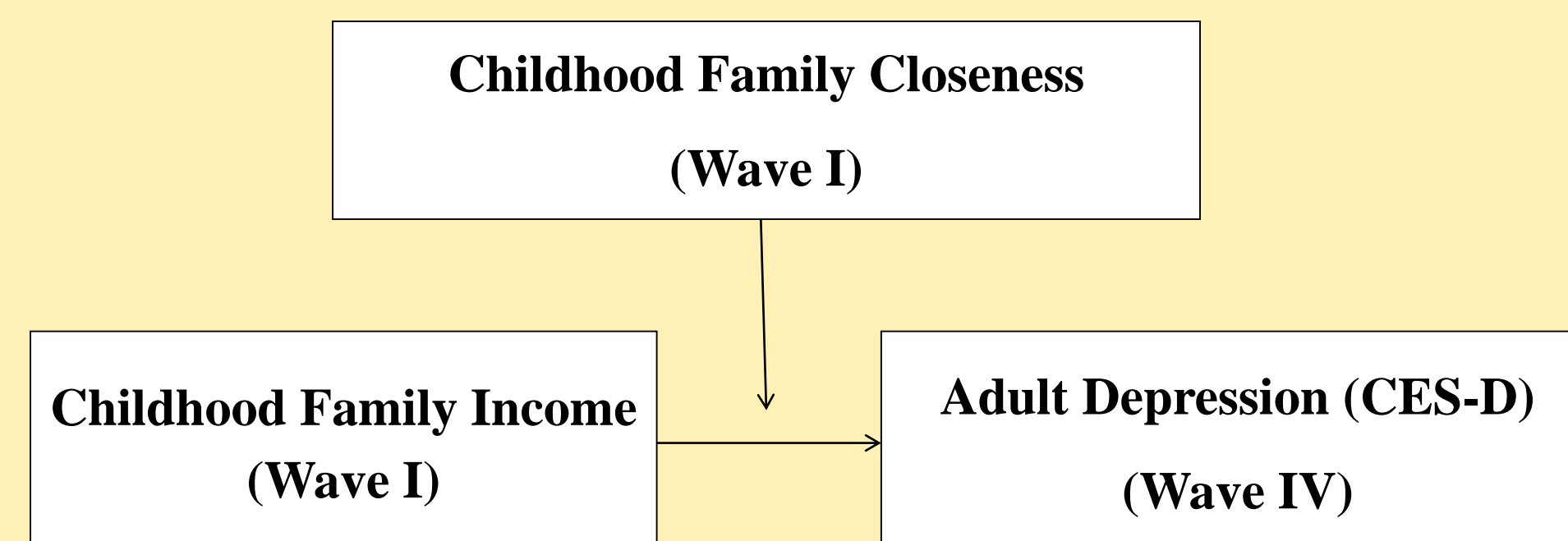
- To examine the relationships between childhood family income and young adult's mental health outcomes.
- To investigate whether parent-child relationship in childhood moderates the family income effects on mental health.

Socioeconomic Status and Health

- SES embodies an array of resources that protect health, such as money, knowledge, power, and beneficial social connections.
- Previous studies have shown that disparities in mortality and morbidity are related to social inequality such as socioeconomic positions in direct and indirect ways.

Childhood Condition, Family Relationships, and Health

- Childhood conditions tend to be determinant of disease in later life.
- Family Relationship as a *Moderator*
 - Though family has high income level, family relationship can distort the positive income effect on mental health.
 - Though family has low income level, family relationship can buffer the detrimental effect of income on mental health.



Hypotheses

- H1:** Family income in childhood is likely to show positive intergenerational effects on children's mental health in adulthood.
- H2:** Family closeness in childhood is likely to show positive intergenerational effects on children's mental health in adulthood.
- H3:** Parent-child relationship measured by family closeness in childhood tends to moderate the family SES effects on mental health in adulthood.

Data

Data Source

- The National Longitudinal Study of Adolescent Health (Add Health)
 - Wave I: 1994-1995 (Childhood conditions)
 - Wave IV: 2007-2008 (the sample was aged from 24 to 32 years old)

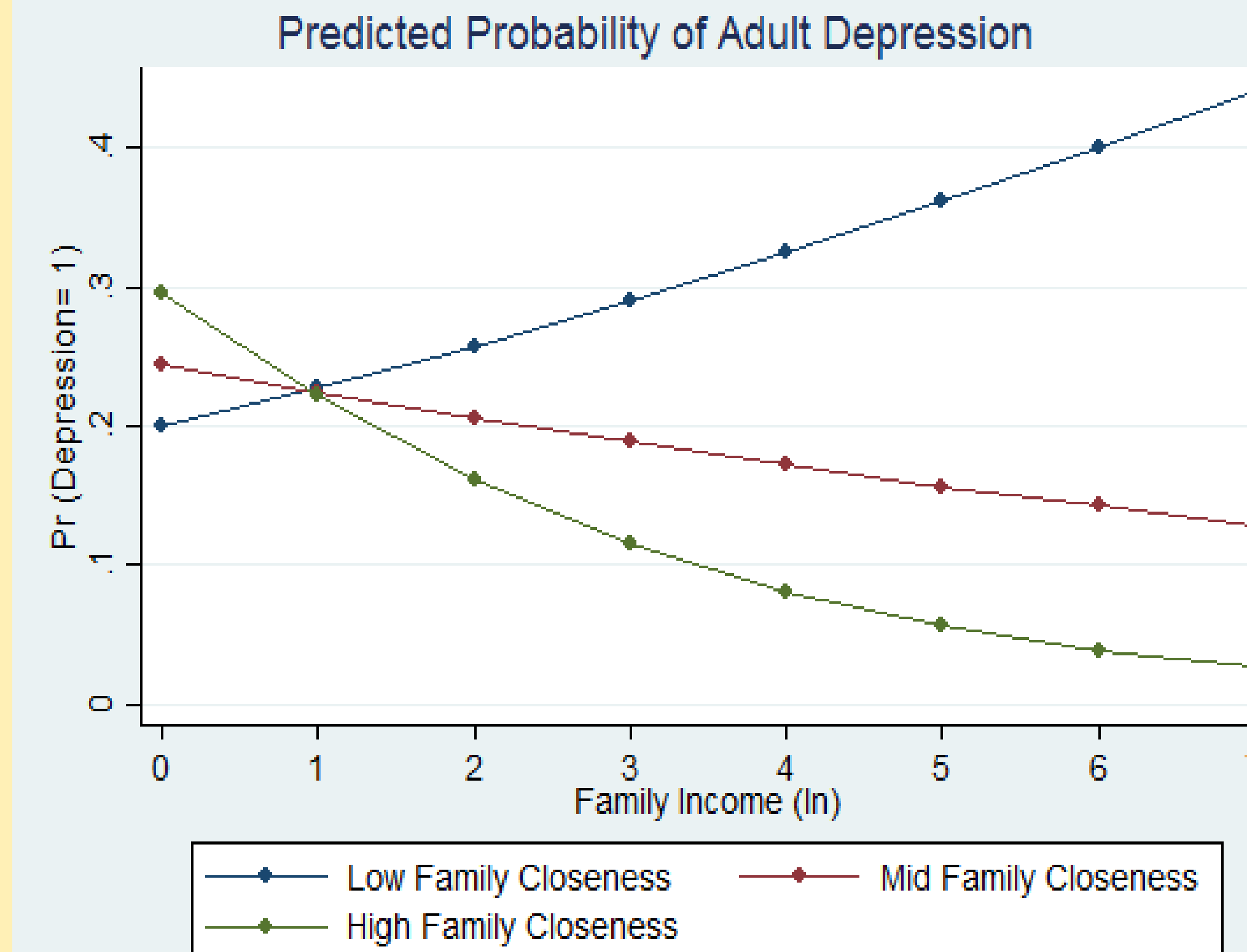
Variables

- Dependent var.
 - Depression (CES-D) (Wave IV): Used 9 items and dichotomized using cut-off point (10), Cronbach's alpha is 0.81
- Independent var.
 - Log transformed Family Income (Wave I).
 - Family Closeness (Wave I) – (Used 4 items; e.g., “how much do you feel that your parents care about you?”(H1PR3); “how much do you feel that people in your family understand you?”(H1PR5) ...)
 - Response ‘Not at all’ (1) to ‘Very much’ (5)
 - Cronbach's alpha is 0.77
- Demographic and other vars. in Wave I and IV
 - Parental education level, Parental marital status, Body mass index, Self-rated health, Race/Ethnicity, Age, Gender

Table 1. Descriptive Statistics

	N	Mean	S.D.	Min	Max
Depression (W-IV)	9,416	13.4%	-	0	1
Family Income (ln) (W-I)	9,416	3.58	0.80	0	6.91
Family Closeness (W-I)	9,416	16.03	2.79	4	20
Parent College or more (W-I)	9,416	26.0%	-	0	1
Marital Status (W-I)	9,416	28.4%	-	0	1
BMI (W-IV)	9,416	28.88	7.50	14.4	97.4
Fair/Poor SRH (W-IV)	9,416	8.4%	-	0	1
Fair/Poor SRH (W-I)	9,416	6.3%	-	0	1
Hispanics	9,416	8.1%	-	0	1
Whites	9,416	65.3%	-	0	1
Blacks	9,416	21.4%	-	0	1
Asians	9,416	5.0%	-	0	1
Number of Family (W-I)	9,416	3.63	1.43	0	17
Age	9,416	29.08	1.75	25	34
Gender (Female=1)	9,416	52.3%	-	0	1

Figure 1: Effects of Interaction between Family Income and Family Closeness



Findings: Direct Effects

Odds Ratios from Logistic Regression Models (with Weights)

- The main effect of independent variables
 - With one-unit decrease in family income(ln), the odds of having depression in adult decreases by 22%.
 - With one-unit decrease in family closeness, the odds of having depression in adult decreases by 8%.
- The effect of other covariates
 - Parents' college or more degree is negatively related to the odds of having depression in adult (alpha level < 0.05).
 - Fair/poor self-rated health (in Wave I and IV), being black (compared to whites), and being female are positively related to the odds of having depression in adult (alpha level < 0.05).
- There is not a significant relationship between *adult depression* and *parental marital status, being Hispanics or Asians (compared to whites), and number of family member* in this model.

Findings: Moderating Effects

Predicted Marginal Probabilities by Family Closeness (Figure 1)

- Generally, family income in childhood has negative impacts on the onset of adult depression.
- However, the association between family income and adult depression significantly depends on the *family closeness in childhood*.
- Even though childhood family income is identical, those who had closer family relationship in childhood are less likely to report depression in adult (*protective effect of family relationship*).
- With the increase in income, the probability of having depression decreased for those who had **high** or **mid** family closeness.
- With the increase in income, the probability of having depression increased for those who had **low** family closeness.

Discussion and Conclusions

- These results verified that the intergenerational family income effect on depressive symptoms even after controlling other health status variables.
- Even if family income is low, high family closeness would be protective shield for children's future mental health.
- This can improve understanding about a mechanism from childhood conditions to adult's health inequality.
- Family issue should be more focused in health inequality literature

Acknowledgement

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