

Parental Debt and Children's Socioemotional Well-being

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abstract

OBJECTIVES: We estimated associations between total amount of parental debt and of home mortgage, student loan, automobile, and unsecured debt with children's socioemotional well-being.

METHODS: We used population-based longitudinal data from the National Longitudinal Study of Youth 1979 Cohort and Children of the National Longitudinal Study of Youth 1979 Cohort. Our analytic sample consisted of 29 318 child-year observations of 9011 children and their mothers observed annually or biennially from 1986 to 2008. We used the Behavioral Problems Index to measure socioemotional well-being. We used ordinary least squares regressions to estimate between-child associations of amounts and types of parental debt with socioemotional well-being, net of a host of control variables, and regressions with child-specific fixed effects to estimate within-child associations of changes in parental debt with changes in socioemotional well-being, net of all time-constant observed and unobserved confounders.

RESULTS: Greater total debt was associated with poorer child socioemotional well-being. However, this association varied by type of debt. Specifically, higher levels of home mortgage and education debt were associated with greater socioemotional well-being for children, whereas higher levels of and increases in unsecured debt were associated with lower levels of and declines in child socioemotional well-being.

CONCLUSIONS: Debt that allows for investment in homes (and perhaps access to better neighborhoods and schools) and parental education is associated with greater socioemotional well-being for children, whereas unsecured debt is negatively associated with socioemotional development, which may reflect limited financial resources to invest in children and/or parental financial stress. This suggests that debt is not universally harmful for children's well-being, particularly if used to invest in a home or education.

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WHAT'S KNOWN ON THIS SUBJECT: Previous studies suggest that some types of debt are negatively associated with adult well-being and mental health outcomes. However, no study to our knowledge has examined how parental debt is associated with child socioemotional well-being.

WHAT THIS STUDY ADDS: By using population-based longitudinal data and fixed-effects regressions, we find that increases in home mortgage and education debt are positively associated with children's socioemotional well-being, whereas increases in unsecured debt are associated with declines in children's socioemotional well-being.

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Children's socioemotional well-being is strongly associated with family socioeconomic resources.¹⁻⁴ An abundance of research shows that low income, poverty, and economic hardship are associated with children's well-being,⁵⁻¹² and these associations may be causal.¹³ Also, wealth and assets are positively associated with children's well-being, such that children fare better, on average, in wealthier families.¹⁴⁻¹⁶ Both having limited access to economic resources and experiencing a decline in economic resources are associated with greater stress and harsher parenting practices as well as poorer physical and social environments, parental mental health, and parent-child relationships, each of which is negatively related to children's socioemotional development.^{5-7,10-12,14,15,17,18} In turn, socioemotional well-being during childhood has important implications for adult health, socioeconomic well-being, and social mobility.¹⁹⁻²³ Despite the voluminous literature on economic resources and child well-being, no research to our knowledge has examined links between parental debt and child well-being.

Debt has become a central component of household resources. Beginning in the 1980s, financial deregulation increased the supply of credit and gave banks more power to control interest rates,^{24,25} making debt more difficult to repay for the average US family.^{26,27} Given that family finances play a key role in child development, it is plausible that debt is associated with child well-being, although the direction of the association is not clear a priori. On one hand, debt offers the ability to invest in assets and human capital, which provide resources that could improve children's well-being. Access to credit also can provide families with resources to weather difficult times. Conversely, debt may trigger financial stress, either because

families use debt to substitute for income or have difficulty repaying debt; such stress may lead to declines in the caregiving environment and child well-being.

Associations between debt and children's socioemotional development also may vary by the type of debt accrued; however, most studies have focused on overall debt or on one type of debt, rather than simultaneously considering all types of debt.²⁸⁻³⁴ Yet, different types of debt are fungible (ie, home equity loans may be used to repay unsecured debt) and (typically low cost) debt used for asset or human capital investment may positively influence well-being, whereas (higher-cost) unsecured debt may negatively influence well-being, particularly over time. Finally, debt may mediate or moderate associations between socioeconomic status and child well-being.

Previous research on debt and socioemotional well-being has focused on adults, and findings have been mixed. A handful of studies find positive associations of debt with financial stress and anxiety among adults,^{31,32,35} including mothers of young children,³⁶ and negative associations with adult mental health^{28,31-34,36-40} and marital satisfaction and conflict.^{29,30} However, others find debt to be negatively associated with depression²⁹ and positively associated with self-esteem and mastery.⁴¹ These inconsistencies may reflect methodological differences across studies, as well as heterogeneity by type of debt.³⁷

We extend previous research by examining associations between parental debt and children's socioemotional well-being. We consider the role of different types of debt: mortgage debt, education debt, automobile debt, and unsecured debt (credit card and other debt that is not tied to an asset). We hypothesize that home and education debt

will be positively associated with child socioemotional development by allowing families to invest in resources that improve children's well-being, whereas unsecured debt will be negatively associated with children's socioemotional development because it is often used to supplement inadequate income, can be difficult to repay, and may be a signal of financial (dis)stress.^{24,42,43}

DATA

We use population-based longitudinal data on children and their mothers, observed biennially from 1986 to 2008 in the National Longitudinal Study of Youth 1979 Cohort and Children of the National Longitudinal Study of Youth 1979 Cohort. Because the child socioemotional well-being measure was administered only to mothers of children age 5 to 14, we limit our sample to 5- to 14-year old children. Furthermore, because information on debt was not collected in 2002 or 2006, we exclude those years from our analyses. We identified 38 027 child-year observations of 10 175 5- to 15-year-old children spanning 1986 to 2008. We then excluded 1164 children (8709 child-year observations) with missing socioemotional well-being or debt data, resulting in an analytic sample of 29 318 child-year observations of 9011 children and mothers. No significant difference in baseline behavior problems or total, home, educational, or unsecured debt between excluded and nonexcluded cases was revealed by *t* tests; excluded cases had slightly lower levels of auto debt, lower levels of maternal education, US nativity, slightly smaller household sizes, slightly lower maternal aptitude scores, and higher rates of child disability and low birth weight status. We organized the data in the form of a constructed age cohort, such that children are observed biennially at

ages 5 to 6, 7 to 8, 9 to 10, 11 to 12, and 13 to 14. We replaced missing values on the control variables with the sample mean (for continuous variables) or zero (for dichotomous variables), and included indicators for whether each respondent had missing data on a particular measure as a control in all regressions.

MEASURES

Socioemotional Well-being

We use a child's total score on the Behavioral Problems Index⁴⁴ to assess socioemotional well-being. Each child's mother was asked 28 items about child problem behaviors. Responses were summed to a total score ranging from 0 to 28. We age-standardize the total score in 3-month intervals to have a mean of 0 and standard deviation (SD) of 1.

Debt

We measure total parental debt as well as 4 types of debt. Total debt is the sum of all nonbusiness-related debt. Home debt consists of all mortgage or home equity loans. Education debt is owed for student loans. Auto debt includes loans for the purchase of a vehicle (but not auto-title loans, which are included in unsecured debt). Unsecured debt includes all other types of debt, such as credit (bank or store) card debt; money owed to businesses, individuals, or banks; and medical debt. Because access to credit varies by socioeconomic status, we would ideally divide unsecured debt into specific categories (medical debt, payday loan debt, auto-title loan debt, and credit card debt). However, our data do not allow for such distinctions, with the exception that credit card debt is differentiated in 2004 and 2008. In those years, credit card debt accounts for approximately two-thirds of all unsecured debt. We applied a consistent 2% top code to each debt amount across surveys and adjusted for inflation, such that we

report debt in constant 2013 dollars. Because debt is highly right-skewed and violates the homoscedasticity assumption of regression models, we model the natural logarithm of debt (plus a constant to account for 0 debt values).

Controls

We use 2 sets of control variables. Time stable confounders are exogenous to (cannot be jointly determined with) parental debt and child socioemotional development and do not vary over time. These include baseline measures of the mother's race (black, Hispanic, white/other race [reference group]), nativity status, age, household size, number of children in the household, academic aptitude (age-standardized Armed Forces Qualifying Test score in 1980), number of fights at work or school (a proxy for impulsivity, measured in 1980), locus of control (measured in 1979; range 4–16; standardized to have a mean of 0 and SD of 1), and self-esteem (measured in 1980; range 6–30; standardized to have a mean of 0 and SD of 1), as well as whether the focal child was born with a low birth weight and is disabled. Time-varying confounders, which may be endogenous to (jointly determined with) parental debt and child socioemotional development include mother's marital status, household income (logged; 2013 dollars), educational attainment (less than a high school degree, high school degree [reference group], some college, 4-year college degree or more), the percentage of weeks the mother was unemployed in the past year, and homeownership. All models also control for parental debt when the child was age 3 to 4 (at the observation point immediately before the first measure of socioemotional well-being, at age 5 to 6), as well as year of observation (year fixed effects).

METHODS

We first present bivariate comparisons of child socioemotional well-being and family characteristics for families with and without any form of debt and for families with and without unsecured debt. We then estimate a series of regression models of the association between debt and child socioemotional development. The first set of models focuses on total amount of parental debt. The second focuses on amounts of specific types of debt (education, home, auto, and unsecured). We estimate 6 regressions for each set: (1) an ordinary least squares (OLS) regression that considers debt and socioemotional well-being net of time-stable characteristics; (2) an OLS regression that controls for all covariates; (3) an OLS regression that controls for time-stable confounders and a lagged measure of child socioemotional well-being; (4) an OLS regression that controls for all covariates and a lagged measure of child socioemotional well-being; (5) an OLS regression that controls for time-stable confounders and includes child-specific fixed effects; and (6) an OLS regression that controls for all covariates and includes child-specific fixed effects.

The inclusion of a lagged measure of behavior problems functions as a proxy for unobserved preexisting differences between children and adjusts for the average influence of baseline behavior problems on later behavior problems, assuming that the baseline measure (and associated unobserved factors) has an identical effect on subsequent behavior problems for children who did and did not experience parental debt. In the fixed-effects models, each child serves as his or her own comparison, allowing us to estimate the change in socioemotional well-being that is associated with a change in parental debt. The method expresses each variable as a deviation from a child's mean value (over time) on

that measure and differences the regression equation across time periods. This eliminates all time-invariant observed and unobserved variables from the model, preventing the estimates from being biased by such factors. However, fixed-effects estimates are subject to bias if unobserved variables (or their effects on the outcome) are time-varying. We reduce the likelihood of such bias by including relevant time-varying confounders in our models.⁴⁵

RESULTS

Descriptive statistics are presented in Table 1. On average, children whose parents have any debt have 0.21 SDs fewer behavior problems than children whose parents have no debt. However, children whose parents have unsecured debt exhibit, on average, 0.12 SDs more behavior problems than those whose parents do not have unsecured debt. Parents with any unsecured debt averaged almost \$10 000 in total unsecured debt and had greater levels of total, education, and auto debt, but less home debt than those with no unsecured debt.

Debtor and nondebtor families differed on a host of characteristics. Those with debt and with unsecured debt were disproportionately white and US born. On average, they were more highly educated (with the exception that those with a college degree or more were less likely to have unsecured debt, although not overall debt), exhibited greater academic aptitudes and levels of self-esteem, were more likely to be married and to own their homes, and reported fewer nonworking weeks. These differences likely reflect that more advantaged individuals have greater access to credit and are therefore more likely to take on debt. Parents with a disabled child were disproportionately likely to have debt.⁴⁶ Such differences highlight the importance of adjusting for a range

of characteristics that may influence associations between debt and child socioemotional well-being.

Table 2 presents regression results for total parental debt (Panel A) and types of parental debt (Panel B). The standard OLS results in Panel A reveal that, without controlling for time-varying covariates, total debt is negatively associated with child behavior problems. However, once time-varying covariates are controlled (Model 2), total debt is positively associated with child behavior problems. This suggests that the positive correlation found in Model 1 reflects higher levels of marriage, income, education, homeownership, and work, among those with debt. When fixed-effects are included (Model 6), we find a negative association between total debt and socioemotional well-being, suggesting that a 10% increase in total debt is roughly associated with a 0.04 SD increase in behavior problems.

The results in Panel B indicate that there is variation in this association by model specification and debt type. Whereas standard OLS estimates reveal no associations between education debt and child behavior problems, the fixed-effects results reveal a negative association, despite adjusting for increased educational attainment. In addition, when controlling only for time-stable (and not time-varying) characteristics, the between-child estimates (standard OLS and lagged dependent variable models) suggest a negative association between home debt and child behavior problems. However, this association is no longer apparent when time-varying characteristics or child-specific fixed effects are included, suggesting that it reflects differences in child socioemotional well-being between homeowner and nonhomeowner families rather than an effect of home debt itself.

Unsecured debt is positively and significantly associated with child

behavior problems across all 6 models. The between-child estimates (Models 1–4) indicate that 10% more unsecured debt is roughly associated with 0.07 (lagged dependent variable model) to 0.14 (standard OLS model) SDs more behavior problems. The within-child estimates (Models 5 and 6) indicate that a 10% increase in unsecured debt is associated with a 0.05 SD increase in behavior problems. Although these associations may appear small in magnitude, given that the average unsecured debtor in the sample owes \$10 000, an increase from \$5000 in debt to the average debt level (a 100% increase), is associated with a 0.5 SD increase in child behavior problems. The mean Behavioral Problems Index score for our full sample is 8.8 and the SD is 6.2. Thus, a 0.5 SD increase from the mean represents an increase of 3.1 points or 35%; a large and substantively significant effect, which may have substantial impacts on child well-being.

We also estimated supplemental models (results not shown) in which we examined whether debt mediated or moderated the association between income or maternal education and child well-being. We found no substantial or consistent evidence that debt acted as mediator or moderator of the association of income or maternal education with child socioemotional well-being. However, these analyses may lack statistical power to detect effects.

CONCLUSIONS

Previous research on debt and socioemotional well-being has focused on adults and produced mixed findings.^{28–41} Yet, no research to our knowledge has examined the link between parental debt and child well-being, and few studies have examined differences in associations by types of debt, nor rigorously adjusted for potential confounders

TABLE 1 Descriptive Statistics

	No Household Debt	Any Household Debt	t Test	No Unsecured Debt	Any Unsecured Debt	t Test
Socioemotional well-being:						
Behavior problems index	9.796 (6.576)	8.495 (6.038)	***	8.543 (6.194)	9.301 (6.204)	***
Behavior problems index (z-score)	0.154 (1.058)	-0.054 (0.972)	***	-0.047 (0.997)	0.075 (0.998)	***
Concurrent debt:						
Total parental debt (2013 \$s)		75 569.0 (96 468.5)		52 834.9 (93 606.6)	60 751.0 (81 819.1)	***
Total education debt (2013 \$s)		375.1 (3171.6)		104.5 (1351.2)	553.9 (4045.6)	***
Total home debt (2013 \$s)		63 012.5 (92 888.0)		48 038.1 (91 140.1)	44 283.3 (72 649.1)	***
Total auto debt (2013 \$s)		7208.2 (10 537.7)		4692.3 (9208.4)	6350.8 (10 107.3)	***
Total unsecured debt (2013 \$s)		4973.2 (15 428.2)			9563.0 (20 343.0)	
Debt at child age 3-4:						
Total parental debt age 3-4 (2013 \$s)	17 990.3 (35 407.5)	53 637.8 (68 592.9)	***	45 325.4 (66 150.7)	42 787.9 (59 380.5)	***
Total education debt age 3-4 (2013 \$s)	57.15 (485.5)	151.2 (1270.6)	***	87.83 (868.5)	188.8 (1433.7)	***
Total home debt age 3-4 (2013 \$s)	14 060.5 (33 189.3)	44 813.0 (65 366.8)	***	38 874.4 (63 165.5)	33 480.5 (55 072.1)	***
Total auto debt age 3-4 (2013 \$s)	1831.3 (3863.5)	5186.3 (8055.6)	***	3984.6 (7053.6)	4836.4 (7775.8)	***
Total unsecured debt age 3-4 (2013 \$s)	1954.2 (7446.8)	3591.4 (10 121.5)	***	2423.7 (8430.3)	4351.0 (10 949.1)	***
Time stable characteristics:						
White/other race/ethnicity	0.260	0.565	***	0.466	0.515	***
Black	0.500	0.245	***	0.327	0.286	***
Hispanic	0.241	0.191	***	0.207	0.199	†
US born	0.920	0.934	***	0.926	0.937	***
Mother's age	32.37 (5.405)	34.24 (5.358)	***	33.96 (5.627)	33.42 (5.089)	***
Household size (at baseline)	4.505 (1.812)	4.424 (1.359)	***	4.460 (1.531)	4.421 (1.423)	*
Number of children in household (at baseline)	2.781 (1.440)	2.558 (1.116)	***	2.641 (1.262)	2.578 (1.129)	***
Child low birth weight	0.109	0.0671	***	0.0794	0.0758	
Child disabled	0.114	0.123	*	0.112	0.134	***
Academic aptitude (percentile; 1980)	22.47 (21.74)	41.86 (27.11)	***	35.53 (27.83)	38.84 (25.98)	***
No. of fights (1980)	0.416 (0.906)	0.251 (0.688)	***	0.290 (0.758)	0.301 (0.748)	
Self-esteem (z-score; 1980)	-0.234 (0.921)	0.0701 (0.971)	***	-0.0186 (0.971)	0.0063 (0.963)	*
Mastery (z-score; 1979)	0.192 (0.941)	-0.0585 (1.000)	***	0.0081 (0.990)	0.0050 (0.992)	
Time-varying characteristics:						
Married	0.326	0.720	***	0.590	0.660	***
Household income (2013 \$s)	29 568.0 (54 758.1)	69 592.6 (105 188.0)	***	59 749.5 (98 030.4)	58 226.6 (93 427.6)	
Less than high school	0.454	0.195	***	0.285	0.227	***
High school	0.343	0.383	***	0.359	0.395	***
Some college	0.159	0.254	***	0.217	0.250	***
College degree or more	0.040	0.162	***	0.135	0.123	**
Percent of weeks not working in last year	7.954 (20.20)	3.151 (11.71)	***	4.823 (15.52)	3.729 (12.87)	***
Own housing unit	0.108	0.647	***	0.496	0.523	***
Observations	7639	21 679		18 044	11 274	

A total of 29318 child-year observations of 9011 children. Proportion or mean (and SD) presented. Bivariate differences assessed using *t* tests. † *P* < .10; * *P* < .05; ** *P* < .01; *** *P* < .001.

TABLE 2 Regression Results

	Standard OLS		Lagged Dependent Variable		Child-Specific Fixed Effects	
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Total parental debt						
Total parental debt (LN; 2013 \$s)	-0.0086*** (0.0018)	0.0059** (0.0020)	-0.0021 (0.0014)	0.0056*** (0.0016)	0.0032† (0.0017)	0.0041* (0.0019)
Lagged behavior problems			0.6118*** (0.0070)	0.6044*** (0.0070)		
Basic characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Enhanced characteristics	No	Yes	Yes	Yes	No	Yes
Lagged dependent variable	No	No	Yes	Yes	No	No
Child-specific fixed effects	No	No	No	No	Yes	Yes
Observations	29 318	29 318	19 385	19 385	29 318	29 318
R ²	0.0962	0.1105	0.4393	0.4433	0.0118	0.0135
Panel B: Types of parental debt						
Total education debt (LN; 2013 \$s)	-0.0064 (0.0045)	-0.0058 (0.0045)	-0.0068 ^a (0.0036)	-0.0066 ^a (0.0036)	-0.0099* (0.0039)	-0.0104** (0.0039)
Total home debt (LN; 2013 \$s)	-0.0123*** (0.0016)	0.0011 (0.0025)	-0.0054*** (0.0011)	0.0017 (0.0019)	-0.0008 (0.0015)	-0.0013 (0.0025)
Total auto debt (LN; 2013 \$s)	-0.0045** (0.0015)	-0.0010 (0.0015)	-0.0015 (0.0012)	0.0003 (0.0012)	0.0008 (0.0013)	0.0012 (0.0013)
Total unsecured debt (LN; 2013 \$s)	0.0132*** (0.0016)	0.0142*** (0.0016)	0.0068*** (0.0013)	0.0074*** (0.0013)	0.0045*** (0.0014)	0.0048*** (0.0014)
Lagged behavior problems			0.6072*** (0.0070)	0.6019*** (0.0071)		
Time-Stable characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Time-Varying characteristics	No	Yes	No	Yes	No	Yes
Lagged dependent variable	No	No	Yes	Yes	No	No
Child-specific fixed effects	No	No	No	No	Yes	Yes
Observations	29 318	29 318	19 385	19 385	29 318	29 318
R ²	0.1056	0.1156	0.4418	0.4446	0.0125	0.0143

A total of 29 318 child-year observations of 9011 children. Coefficients (and SEs) from OLS regression are presented. SEs are corrected for intracluster correlation due to multiple observations of children in the standard OLS and lagged dependent variable regressions and for intracluster correlation of children of the same mother (siblings) in the fixed-effects regression. Each panel (A and B) presents results from 6 separate regression models. Model 1 includes only time-stable characteristics. Model 2 includes time-stable and time-varying characteristics. Models 3 and 4 add a lagged dependent variable to Models 1 and 2. Models 5 and 6 are fixed-effects versions of Models 1 and 2. Time-stable and time-varying characteristics are listed in Table 1. All models also control for year of observation. Ln refers to natural logarithm. † $P < .10$; * $P < .05$; ** $P < .01$; *** $P < .001$.

of the association between debt and well-being.

Although social selection is a concern in observational studies, our analyses address selection bias in 2 ways. Our between-child estimates adjust for an extensive set of background characteristics and our within-child (fixed effects) estimates use a child as his or her own control, and therefore represent associations of changes in debt with changes in socioemotional well-being while netting out all time-invariant observed and unobserved characteristics. Furthermore, we estimate associations for total parental debt as well as amounts of types of debt. We find that total debt is positively associated with child behavior problems; however, this association is driven largely by unsecured debt. Unsecured debt is

positively associated with behavior problems in both the between-child and within-child models. This finding is generally consistent with the findings of Berger and colleagues³² from their analysis of debt and adult depressive symptoms. Our data did not allow us to differentiate between types of unsecured debt, as noted previously. Future research should examine whether associations of unsecured debt and child well-being differ across types of unsecured debt.

In addition, our between-child (but not within-child) estimates reveal that home debt is negatively associated with behavior problems. This likely reflects selection bias, as the association is reduced to zero after controlling for homeownership. However, our within-child (but not between-child) estimates reveal

that education debt is negatively associated with behavior problems. This finding is perplexing, given that it is only apparent after controlling for within-child changes in maternal education. One possibility is that this association could be operating through pathways other than degree attainment. For example, it could reflect quality of education or type of institution attended.⁴⁷ If so, it too may reflect selection bias. However, future research is needed to better understand the link between parental education debt and child well-being, given that recent college-going parents have the highest levels of student debt in history.⁴⁸

Our estimates for unsecured debt are robust across all model specifications, lending support to the possibility that they may be causal. Theoretically,

unsecured debt may be a signal of financial distress, generally entails high interest rates and fees (making it difficult to repay), and is often used for immediate consumption rather than investment.^{24,42,43} Thus, unsecured debt may induce stress, anxiety, or other adverse indicators of psychosocial functioning for parents, each of which is associated with poorer-quality parental behaviors, which are, in turn, negatively associated with child well-being. Future research should examine the potential pathways through which various types and amounts of debt may be linked to child well-being. Future work should also further examine whether associations between (particular types of debt) and child well-being may differ by socioeconomic status,

as well as whether debt may function as a mediator or moderator of associations between income and child well-being.

In sum, our results suggest that unsecured debt, and perhaps the financial deregulatory policies that precipitated the rise in debt, is linked to poorer socioemotional development for children. This is of concern given that socioemotional well-being in childhood is linked to a range of adverse outcomes throughout the life course. Pediatricians should be concerned about the socioemotional development of children whose parents have unsecured debt. It may be efficacious to discuss with parents whether they are experiencing financial-related stressors, such

as unsecured debt, and whether and how such stressors may be influencing their parenting and interactions with children. Given that doctors' time with patients is limited and expensive, one approach may be for the health care providers to flag overdue medical bills and include items about debt struggles on intake forms. This may allow for easy identification of patients who may be struggling with debt, who could then be engaged in a short conversation and perhaps given a referral to a financial coach or community agency that specializes in this area.

ABBREVIATION

OLS: ordinary least squares

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REFERENCES

1. Bradley RH, Corwyn RF. Socioeconomic status and child development. *Annu Rev Psychol.* 2002;53:371–399
2. McLoyd VC. Socioeconomic disadvantage and child development. *Am Psychol.* 1998;53(2):185–204
3. Aber JL, Bennett NG, Conley DC, Li J. The effects of poverty on child health and development. *Annu Rev Public Health.* 1997;18:463–483
4. Brooks-Gunn J, Duncan GJ. The effects of poverty on children. *Future Child.* 1997;7(2):55–71
5. Eamon MK. Structural model of the effects of poverty on externalizing and internalizing behaviors of four-to five-year-old children. *Soc Work Res.* 2000;24(3):143–154
6. Goosby BJ. Poverty Duration, Maternal Psychological Resources, and Adolescent Socioemotional Outcomes. *J Fam Issues.* 2007;28(8):1113–1134
7. McLeod JD, Shanahan MJ. Poverty, Parenting, and Children's Mental Health. *Am Sociol Rev.* 1993;58(3):351–366
8. McLeod JD, Shanahan MJ. Trajectories of poverty and children's mental health. *J Health Soc Behav.* 1996;37(3):207–220
9. Eamon MK. The effects of poverty on children's socioemotional development: an ecological systems analysis. *Soc Work.* 2001;46(3):256–266
10. Pachter LM, Auinger P, Palmer R, Weitzman M. Do parenting and the home environment, maternal depression, neighborhood, and chronic poverty affect child behavioral problems differently in different racial-ethnic groups? *Pediatrics.* 2006;117(4):1329–1338
11. Mistry RS, Vandewater EA, Huston AC, McLoyd VC. Economic well-being and children's social adjustment: the role of family process in an ethnically diverse low-income sample. *Child Dev.* 2002;73(3):935–951
12. Bolger KE, Patterson CJ, Thompson WW, Kupersmidt JB. Psychosocial adjustment among children experiencing persistent and intermittent family economic hardship. *Child Dev.* 1995;66(4):1107–1129
13. Costello EJ, Compton SN, Keeler G, Angold A. Relationships between poverty and psychopathology: a natural experiment. *JAMA.* 2003;290(15):2023–2029
14. Strohschein L. Household income histories and child mental health trajectories. *J Health Soc Behav.* 2005;46(4):359–375
15. Tracy M, Zimmerman FJ, Galea S, McCauley E, Stoep AV. What explains the relation between family poverty and childhood depressive symptoms? *J Psychiatr Res.* 2008;42(14):1163–1175

16. Shanks TRW. The impacts of household wealth on child development. *J Poverty*. 2007;11(2):93–116
17. Eamon MK, Zuehl RM. Maternal depression and physical punishment as mediators of the effect of poverty on socioemotional problems of children in single-mother families. *Am J Orthopsychiatry*. 2001;71(2):218–226
18. Berger LM. Socioeconomic factors and substandard parenting. *Soc Serv Rev*. 2007;81(3):485–522
19. Currie J, Stabile M. Child mental health and human capital accumulation: the case of ADHD. *J Health Econ*. 2006;25(6):1094–1118
20. Fletcher J, Wolfe B. Child mental health and human capital accumulation: the case of ADHD revisited. *J Health Econ*. 2008;27(3):794–800
21. Currie J, Stabile M. Mental health in childhood and human capital. In: Gruber J, ed. *The Problems of Disadvantaged Youth: An Economic Perspective*. Cambridge, MA: National Bureau of Economic Research; 1999:115–148
22. Fletcher JM. Adolescent depression and educational attainment: results using sibling fixed effects. *Health Econ*. 2010;19(7):855–871
23. McLeod JD, Fettes DL. Trajectories of failure: the educational careers of children with mental health problems. *AJS*. 2007;113(3):653–701
24. Campbell J. Neoliberalism in crisis: regulatory roots of the U.S. financial meltdown. *Res Sociol Organ*. 2010;30B:65–101
25. Hyman L. *Debtor Nation: The History of America in Red Ink*. Princeton, NJ: Princeton University Press; 2011
26. Debelle G. Macroeconomic Implications of Rising Household Debt: Bank for International Settlements Working Paper Series, No 153; 2004
27. Pearce DK. Rising household debt in perspective. *Econ Rev*. 1985;3–17
28. Bridges S, Disney R. Debt and depression. *J Health Econ*. 2010;29(3):388–403
29. Dew J. Two sides of the same coin? The differing roles of assets and consumer debt in marriage. *J Fam Econ Issues*. 2007;28:89–104
30. Dew J. Debt change and marital satisfaction change in recently married couples. *Fam Relat*. 2008;57:60–71
31. Drentea P. Age, debt and anxiety. *J Health Soc Behav*. 2000;41(4):437–450
32. Drentea P, Reynolds JR. Neither a borrower nor a lender be: the relative importance of debt and SES for mental health among older adults. *J Aging Health*. 2012;24(4):673–695
33. Gathergood J. Debt and depression: causal links and social norm effects. *Economic Journal*. 2012;122:1094–1114
34. Keese M, Schmitz H. Broke, ill, and obese: is there an effect of household debt on health? *Rev Income Wealth*. 2014;60(3):525–541
35. Worthington AC. Debt as a source of financial stress in Australian households. *Int J Consum Stud*. 2006;30(1):2–15
36. Reading R, Reynolds S. Debt, social disadvantage and maternal depression. *Soc Sci Med*. 2001;53(4):441–453
37. Berger LM, Collins JM, Cuesta L. Household debt and adult depressive symptoms in the United States. *Journal of Family and Economic Issues*. 2015;Online First.
38. Brown S, Taylor K, Price SW. Debt and distress: evaluating the psychological cost of credit. *J Econ Psychol*. 2005;26(5):642–663
39. Jenkins R, Bhugra D, Bebbington P, et al. Debt, income and mental disorder in the general population. *Psychol Med*. 2008;38(10):1485–1493
40. Turunen E, Hiilamo H. Health effects of indebtedness: a systematic review. *BMC Public Health*. 2014;14:489
41. Dwyer RE, McCloud L, Hodson R. Youth debt, mastery, and self-esteem: class-stratified effects of indebtedness on self-concept. *Soc Sci Res*. 2011;40(3):727–741
42. Leicht KT, Fitzgerald ST. *Postindustrial Peasants: The Illusion of Middle-Class Prosperity*. New York, NY: Worth Publishers; 2007
43. Mishel L, Berstein J, Allegretto S. *The State of Working America 2006–2007*. Ithaca, NY: ILR Press; 2007
44. Zill N, Peterson JL. *Behavior Problems Index*. Washington, DC: Child Trends; 1986
45. Allison P. *Fixed Effects Regression Methods for Longitudinal Data using SAS*. Cary, NC: SAS Institute; 2005
46. Houle J, Berger L. *Children with Disabilities and Trajectories of Mothers' Consumer Debt Across the Life Course*. Albuquerque, NM: Association for Public Policy Analysis and Management; 2015
47. Houle JN. Disparities in debt: parents' socioeconomic status and young adult student loan debt. *Sociol Educ*. 2014;87:53–69
48. Houle JN. A generation indebted: young adult debt across three cohorts. *Soc Probl*. 2014;61:448–465

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