The Financial Correlates of Midlife Obesity

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Introduction: This study explored the associations between midlife obesity and an array of common financial stressors related to wealth loss, debt, and bankruptcy.

Methods: The analysis was conducted in 2022 with data from the National Longitudinal Survey of Youth 1979. The final sample included 36,122 observations on 8,059 respondents as they aged from ages 31−39 years in 1996 to ages 51−59 in 2016. Associations between obesity and financial stressors were estimated with logistic regression models adjusting for a comprehensive set of relevant control variables.

Results: The analysis found significant relationships between obesity and multiple types of financial stressors, including property debt, unsecured debt, and bankruptcy. Property debt and unsecured debt increased the odds of obesity by 29% and 20%, respectively, and bankruptcy increased the odds of obesity by 43%. Average Marginal Effects (AMEs) in combination with model fit statistics confirmed that these stressors—unsecured debt, property debt, and bankruptcy—were important financial correlates of midlife obesity among the National Longitudinal Survey of Youth 1979 cohort.

Conclusions: The financial correlates of obesity included multiple financial stressors, but the magnitude of associations varied substantially across types of financial stressors. Results suggest that future interventions aimed at reducing obesity disparities should target populations with high levels of debt and bankruptcy.
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INTRODUCTION

In response to concerning trends in the economic well-being of aging adults, researchers across social and health sciences have sought to better understand the impact of financial stressors on population health.[1−5] Financial stressors include a range of negative financial events such as large wealth losses (or wealth shocks), indebtedness (negative net worth or simply debt), and bankruptcy.[2] Current research on financial stressors generally provides evidence of a negative association between financial stressors and health,[6−9] but less is known about the associations between financial stressors and midlife obesity.

A prominent explanation for the association between financial stressors and adult health emphasizes the impact of stress on the body, which has implications for midlife obesity.[3,6,10] Stressful experiences or social conditions (stressors) get under the skin by triggering a hormonal response (stress) capable of increasing one's chances of health problems and obesity.[11,12] Stress is a known catalyst of unhealthy behaviors with established links to obesity, for example, problematic alcohol use and emotional eating.[13−15] Given the established links between financial well-being, stress, and weight gain, a growing body of research has begun examining the

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financial correlates of obesity.[2,16−18] This study extends this line of research by identifying which specific financial stressors have the largest and most robust associations with midlife obesity. To this end, the analysis explored variation in the associations between common types of financial stressors and midlife obesity in the National Longitudinal Surveys of Youth 1979 (NLSY79). The NLSY79 is a cohort of baby boomers, born in 1957−1964,[19] who transitioned into middle adulthood during the Great Recession of 2007−2009. This cohort thus experienced multiple types of wealth loss, debts, and bankruptcies with relationships to stress and poor health outcomes in later adulthood.

Wealth shocks denote large drops in net worth, the value of one's total assets minus their total debts. Wealth shocks have significant associations with mental health and mortality risk.[3−5] However, wealth loss can occur within any one of the components of net worth. For example, housing-related financial problems such as a large drop in the value of one's primary residence can be a stressful experience with multiple implications for individuals' later financial, emotional, and physical well-being.[1,20,21] Although homeownership is the most common source of wealth, one's net worth can also drop owing to a loss in one's savings or in the value of other properties such as vehicles, real estate (beyond one's primary residence), and businesses or farms. Recent studies suggest that these components of net worth as well as large drops in their value can have independent associations with health and longevity,[16,22,23] but research has not considered whether this finding extends to obesity.

Debt is not necessarily bad for health,[24] but among midlife and older adults, the stress of debt—especially indebtedness—is consistently associated with mental and physical health problems.[7,8,25,26] Debt can be disaggregated by its relationship to asset ownership.[27] Secured debts are linked to material assets such as real estate or vehicles, whereas unsecured (or noncollateralized) debts are not tied to any physical asset. In general, secured debts are related to financial investments such as homeownership and have lower interest rates than unsecured debts, but even secured debts can become financial stressors under certain conditions. For example, small-business owners can easily find themselves with large amounts of debt while trying to keep a struggling business afloat. Unsecured debt is typically created by, for example, credit card use, medical expenses, or high-interest loans used to supplement low wages. In other words, unsecured debt typically denotes a financial liability and a future drain on resources among those with few resources to spare.[6,28]

Bankruptcy offers debt relief but at an apparent price for health.[18,29] Filing for bankruptcy prohibits creditors from collecting outstanding debts, but filers generally find that their financial troubles continue. Bankruptcy carries a stigma in both social and financial networks, highlighting a person's previous financial problems and casting doubt on their credit worthiness.[30] Therefore, bankruptcy can cause problems in the housing and labor markets, often leaving those who file for bankruptcy with many of the same financial strains that the bankruptcy process was supposed to alleviate.[9] Multiple types of bankruptcy exist, with debtors generally filing Chapters 7 or 13 bankruptcy.[29] Chapter 7 bankruptcies lead to an immediate repossession of assets, and Chapter 13 bankruptcies reorganize debt into a repayment plan wage-earning debtors can afford to pay off over time. Paying one's debt down and holding onto assets might reduce stress and lower anxiety or potentially become a recurring strain on limited resources.[9]

In summary, this study extends research by identifying which specific financial stressors are associated with obesity among a cohort of baby boomers entering midlife. Given the established relationships of multiple financial stressors with poor health and obesity, the analysis considered an array of stressors related to wealth loss, debt, and bankruptcy. Although this analysis is exploratory in nature, mapping the relative associations between multiple financial stressors and obesity provides useful information for future research and public policies, for example, future attempts to reduce obesity disparities should target populations with high levels of debt and bankruptcy.

METHODS

Study Sample

To assess the association between financial stressors and health, data from the NLSY79 was used. The NLSY79 is a nationally representative, longitudinal study of U.S. adults that began in 1979 with 12,686 respondents between the ages of 14 and 22 years. The National Longitudinal Surveys (NLSs) is a program of the U.S. Bureau of Labor Statistics with data collection provided by the Center for Human Resource Research, a multidisciplinary research organization affiliated with The Ohio State University. The NLS data are available to the public and can be downloaded for free at www.nlsinfo.org.

The analysis only used the 1996, 2000, 2004, 2008, 2012, and 2016 survey years for 2 reasons. First, 1996 was the baseline because it represents the first year of the NLS in which all respondents were in their 30s (ages 31–39 years). Second, the analysis relied on 4-year intervals because the NLSY79 began collecting wealth data every 4 years in 2000. The analysis excluded the 1998 survey to ensure that results were not an artifact of change in the interval length between measurements of wealth.

The final analysis sample included 36,122 observations of 8,059 NLSY79 respondents. In 1990, the NLS dropped 3 supplemental samples from data collection (*n*=2,700), reducing the total sample

from 12,686 to 9,986 respondents. To arrive at the final analysis sample, another 1,927 respondents were dropped owing to missingness (*n*=1,065) or attrition (*n*=862). To ensure that listwise deletion did not substantively impact results, a supplemental analysis was conducted using respondents' BMI as the outcome with full information maximum likelihood linear regression.[31,32] This supplemental analysis with 54,744 observations of 9,124 respondents (862 respondents who did not participate in any survey from 1996 to 2016 were dropped) yielded the same overall conclusions as the analysis of obesity presented in this study.

Measures

Obesity was constructed by taking the most recently reported height and respondents' self-reported weight in each survey to create each respondents' BMI (kg/m^2), with BMI ≥30 kg/m^2 coded as a 1, and all others as 0. Although measured height and weight are preferable, research indicates that self-reports are a reasonable proxy for measured height and weight.[33,34] The BMI of women was set to missing if they reported a pregnancy.

Wealth shocks included large drops in net worth and the value of assets including savings, housing, and other properties. The NLSY79 collected information on the market value of respondents' homes; savings, stocks, investments, and bonds; businesses and farms; and vehicles, in addition to the value of debts related to homes, cars, real estate, and businesses. Net worth denotes the total value of assets minus total debts. *Savings* refers to the total amounts in savings and checking accounts. Property wealth denotes the total market value of vehicles, real estate (other than primary residence), businesses, and farms. Shocks denote a 75% or larger drop in assets since the respondent's last survey (yes=1, no=0).[4,5] For example, if a respondent reported a 75% drop in the value of their savings from their 1992 to 1996 interview, they would be given a 1, indicating a savings shock.

Debts included indebted, housing debt, property debt, and unsecured debt. Indebtedness was operationalized using information collected from respondents about their financial situation if they were to pay off all outstanding debts. Respondents could reply that they would have money left over, would break even, or would be in debt. With this information, a binary indicator of indebtedness was created by combining those who reported having money left over or breaking even into a single reference group (coded 0).[8] Indicators of housing and property debt were created by taking the difference in the property's market worth and the debt owed on it and creating binary indicators of negative net housing and property wealth. Unsecured debt was measured as a binary indicator of respondents who reported a debt of more than $500 because of credit cards, educational loans, or medical debts.

Bankruptcies were operationalized with 3 binary variables that identified whether respondents had filed for any type of bankruptcy, a Chapter 7 bankruptcy, or a Chapter 13 bankruptcy. In 2004 and then from 2008 to 2016, the NLSY79 collected information on respondents' experiences with bankruptcy. This information includes whether the respondents have ever declared bankruptcy, the type of bankruptcy, and the date it occurred. To operationalize bankruptcy, a binary variable for each year was created in the analysis period that respondents experienced a personal bankruptcy of any type. Likewise, binary indicators were created denoting the type of bankruptcy (Chapters 7 or 13).

Table 1. Descriptive Information for Analysis Variables at 1996 Baseline

Variable names	Description	Min, Max	Mean or %
Outcomes			
Obesity	BMI≥30 kg/m^2 is 1, otherwise is 0	0, 1	24%
Wealth shocks			
Net worth shock	75% or larger drop in net worth	0, 1	12%
Savings shock	75% or larger drop in savings	0, 1	21%
Housing shock	75% or larger drop in home wealth	0, 1	5%
Property shock	75% or larger drop in property wealth	0, 1	11%
Debts			
Indebted	Negative net worth	0, 1	14%
Housing debt	Negative net home wealth	0, 1	2%
Property debt	Negative net property wealth	0, 1	6%
Unsecured debt	Unsecured debt of more than $500	0, 1	37%
Bankruptcies			
Bankrupt	Filed for bankruptcy	0, 1	3%
Chapter 7	Filed for a Chapter 7 bankruptcy	0, 1	2%
Chapter 13	Filed for a Chapter 13 bankruptcy	0, 1	1%
Socioeconomic controls			
Wealth	Natural log of average wealth	0, 13.87	8.38
Income	Natural log of average of income	0, 13.79	10.24
Education	Completed years of schooling	0, 3	
<12 years			13%
12 years			43%
13–15 years			24%
≥16 years			20%
Employed	Currently, employed	0, 1	81%
Work hours	Hours worked in the previous year	0, 2	
None	Zero hours worked		14%
Part time	<2,080 hours		29%

(continued on next page)

Table 1. Descriptive Information for Analysis Variables at 1996 Baseline (*continued*)

Variable names	Description	Min, Max	Mean or %
Full time	≥2,080 hours		57%
Demographic controls			
Age	Age in years	31, 39	34.55
Female	Women=1, men=0	0, 1	49%
Race/ ethnicity		0, 3	
White	Non-Hispanic, White		48%
Black	Non-Hispanic, Black		29%
Hispanic			19%
Other	All other races/ ethnicities		4%
Marital status		0, 2	
Married			57%
Previously married	Divorced, separated, or widowed		20%
Never married			23%

Max, maximum; Min, minimum.

The analysis adjusted for several known socioeconomic and sociodemographic correlates of health and financial stressors (Table 1).[2,35] Socioeconomic controls included average family income, average wealth, education, employment, job loss, work hours, and health insurance. To normalize the distributions of income and wealth, the analysis used the natural log of a rolling average. Education was measured as a categorical variable denoting respondents with <12, 12, 13–15 years, and ≥16 years of schooling. The analysis also controlled for current employment status and work hours in the previous year (none, part time, or full time). Demographic controls included sex (male/female), race/ethnicity (non-Hispanic White, non-Hispanic Black, Hispanic, or other race/ethnicity), age (in years), and marital status (married, previously married, or never married).

Statistical Analysis
To correctly identify the most influential financial stressors in terms of adult obesity among the NLSY79 cohort, the analysis examined statistical significance, coefficient magnitude, and model fit. The analysis thus proceeded in 3 steps. First, to test statistical significance, the analysis regressed obesity on each type of wealth loss, debt, and bankruptcy using logistic regression with socioeconomic and demographic controls. To address the nonindependence among observations of individuals over time, the analysis estimated the SEs with the clustered sandwich estimator, allowing for intragroup correlation by relaxing the usual requirement that the observations be independent. In other words, the analysis assumes that observations are independent across respondents but not necessarily within respondents over time.[36] To further improve the accuracy of parameter estimates, the

analysis also included lagged obesity as a control variable in all statistical models.[37,38]

The second step of analysis used the logistic coefficients from the first step to estimate the average marginal effects (AMEs) of each financial stressor on midlife obesity. AMEs denote the differences in the probability of midlife obesity between those who experienced a particular financial stressor and those who did not experience the stressor, holding all other variables at their observed values in the data. AMEs reveal the relative magnitude of the associations between stressors and obesity. Although ORs offer a useful way of presenting patterns in significance, examining predicted probabilities such as AMEs is a critically important step when working with logistic regression.[39,40]

The third and final step of the analysis compared the differences in model fit between (1) a model of health with controls but no financial stressors and (2) models of health with controls and a single stressor. Model fit is measured with the Akaike Information Criteria (AIC). Lower AIC values indicate better fitting models.[41] Model fit was measured with the AIC because the Bayesian Information Criteria penalizes model complexity and because the goal of the analysis was identifying which financial stressor provided the best improvement in fit regardless of model complexity. All data preparation and statistical estimation was done in Stata 17.[42]

RESULTS
The analytic sample included 8,059 participants, who contributed a total of 36,122 observations between 1996 and 2016. The characteristics of the sample at baseline (1996) are presented in Table 1. Table 2 shows the percentage of obesity and financial stressors in the sample, by survey year. Obesity ranged from 24% in 1996 to 41% in 2016. Financial stressors related to savings losses and unsecured debt were most common. Nearly a quarter of the sample experienced a savings loss in 1996 and 2012, and approximately half of the sample reported unsecured debts of $500 or more from 2004 to 2016. Even financial stressors that occurred less frequently, such as housing debt and Chapter 13 bankruptcy, were still reported by about 1% of the sample each year.

Table 3 presents the ORs of interest from 13 models of obesity, including 11 models that adjust for a single financial stressor and 2 models, Models 12 and 13, that estimate the association between obesity and multiple financial stressors simultaneously. Although not shown, all statistical models included control for lagged obesity,[18,38] age, age squared,[43,44] and the socioeconomic and demographic controls listed in Table 1.

After controlling for socioeconomic and demographic variables, a loss of 75% or more in net worth was not significantly associated with an increase in the odds of obesity by a factor of 1.06 (*p*>0.05) in Model 1. In terms of significance, this result held for every type of wealth loss, including savings, housing, and property shocks. In terms of debt, only property and unsecured debts were

Table 2. Percentage of the Sample Who Experienced Obesity or Financial Stressors, by Year (N=8,059; observations=36,122)

Variable names	Years					
	1996, %	2000, %	2004, %	2008, %	2012, %	2016, %
Outcome						
Obesity	24	30	32	36	39	41
Wealth shocks						
Net worth shock	12	11	15	14	19	13
Savings shock	21	16	20	21	22	17
Housing shock	5	6	8	8	9	6
Property shock	11	14	15	12	14	13
Debts						
Indebted	14	11	11	12	15	13
Housing debt	2	1	1	1	2	1
Property debt	6	6	5	5	4	4
Unsecured debt	37	38	50	53	50	48
Bankruptcies						
Bankrupt	3	4	4	3	3	1
Chapter 7	2	3	2	2	1	1
Chapter 13	1	2	2	1	1	1

significantly associated with obesity ($p<0.001$), whereas bankruptcy and its 2 component types, Chapters 7 and 13 bankruptcy, were all significantly related to obesity ($p<0.001$ for bankruptcy and Chapter 7 and $p<0.01$ for Chapter 13).

Models 12 and 13 in Table 3 considered multiple stressors in a single model to assess whether any significant associations between financial stressors and obesity were because of a correlation with another financial stressor. In Models 12, the analysis considered overall measures of wealth shock, debt, and bankruptcy in a single model. In Model 13, the analysis examined the multiple types of wealth shocks, debts, and bankruptcies in a single model. Even after adjusting for other, related financial stressors, the results were the same in terms of statistical significance. In Model 12, bankruptcy remained the only financial stressors related to obesity, and in Model 13, property debt, unsecured debt, and Chapters 7 and 13 were all significantly related to obesity.

Table 3 also includes the AIC statistic for model fit. The analysis used a model to assess the improvement in fit provided by adding each of the varieties of financial stressors to a new model with AIC_M. The change in fit is denoted by AIC_0-AIC_M, where AIC_0 represents a model without a financial stressor. A difference of 10 or more indicates strong support for AIC_M, a difference of 4−9 provides moderate support for AIC_M, and a difference ≤ 3 indicates little to no improvement in fit from AIC_0.[41] Unsecured debt provided the largest improvement in fit, a difference of 40. Property debt and bankruptcy

provided the next best improvements in fit, a difference of 19 and 20, respectively. Although relatively smaller improvements in fit, the AIC statistics still suggested strongly to moderate support for models that included Chapters 7 and 13 bankruptcy.

To compare the magnitude of the associations between financial stressors and obesity, Figure 1 presents the differences in the predicted probability of obesity. AMEs are the expected increase in the probability of obesity for those who experienced a financial stressor. If the CIs include 0, then the AME is not significant at the 0.05 significance level. The largest AMEs were related to unsecured debts, property debts, and bankruptcy, which had AMEs ranging in size from approximately 0.03 (unsecured debt) to 0.05 (bankruptcy). The magnitude of AMEs related to wealth shocks was all relatively small and not statistically significant. When considered together, the ORs, AMEs, and model fit indices all confirmed that unsecured debts, property debts, and bankruptcy were the principal financial correlates of obesity during the transition to middle adulthood for the NLSY79 cohort.

DISCUSSION

This study extends past obesity research using the breadth of the NLSY79 data to create a detailed accounting of the financial stressors experienced by a cohort of baby boomers as they aged from ages 31−39 years in 1996 to ages 51−59 years in 2016. Results revealed that the magnitude of associations between financial stressors

Table 3. ORs From Logistic Regression Models Predicting Obesity, 1996–2016 (N=8,059; observations=36,122)

Variables						Models							
	1	2	3	4	5	6	7	8	9	10	11	12	13
Net worth shock	0.97 (0.04)											0.96 (0.04)	
Savings shock		1.00 (0.03)											1.00 (0.04)
Housing shock			0.94 (0.05)										0.94 (0.05)
Property shock				0.95 (0.04)									0.95 (0.04)
Indebted					1.05 (0.05)							1.05 (0.05)	
Housing debt						1.00 (0.13)							0.97 (0.13)
Property debt							**1.33 (0.09)**						**1.29 (0.08)**
Unsecured debt								**1.21 (0.04)**					**1.20 (0.04)**
Bankruptcy									**1.43 (0.11)**			**1.43 (0.11)**	
Chapter 7										**1.44 (0.15)**			**1.44 (0.15)**
Chapter 13											**1.40 (0.17)**		**1.41 (0.17)**
Model fit													
AIC	33,188	33,188	33,187	33,186	33,187	33,188	33,168	33,146	33,167	33,175	33,180	33,169	33,119
$AIC_O - AIC_M$	−2	−2	−1	0	−1	−2	19	40	20	11	6	18	67

Note: Boldface indicates statistical significance ($p<0.05$ [2-tailed tests]).
Robust SEs are in parentheses. Every model included lagged obesity, age, age squared, and the socioeconomic and demographic controls listed in Table 1. AIC_O-AIC_M denotes the differences between a model that excludes all financial stressors (AIC_O) and models with a single financial stressor included (AIC_M).
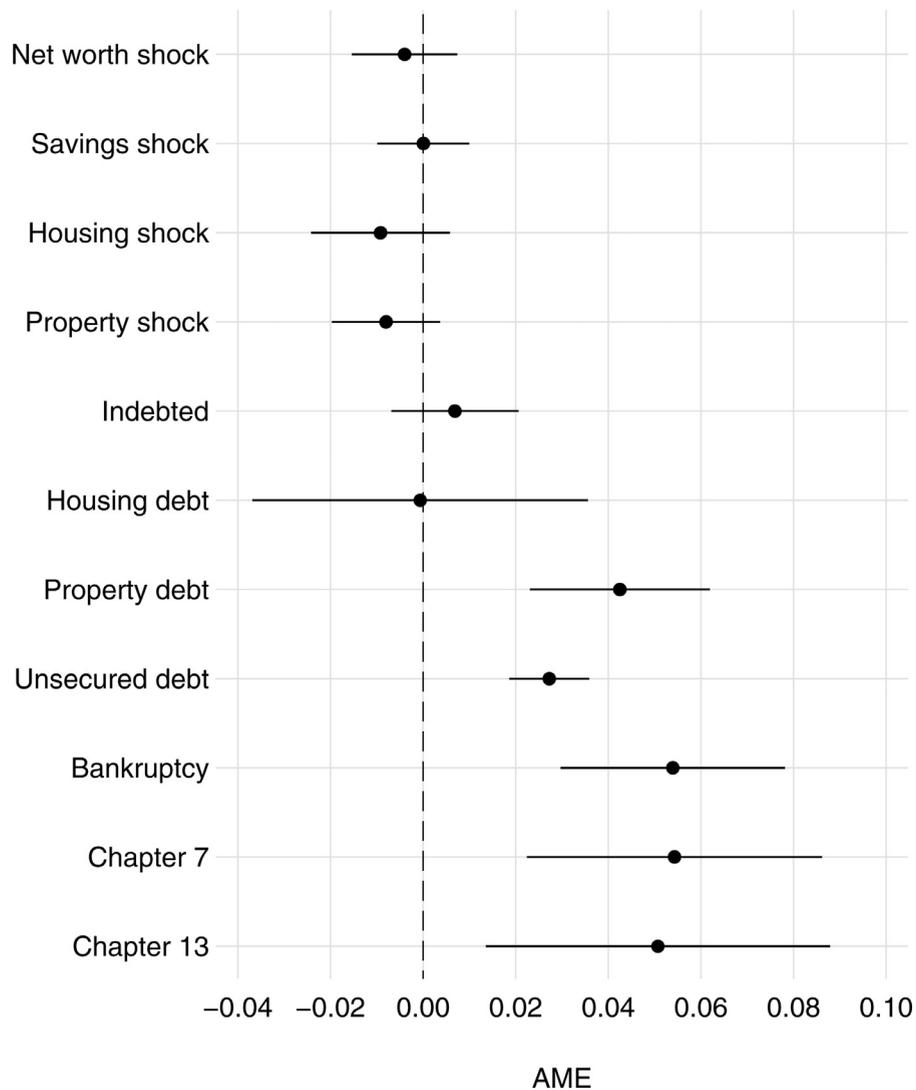AIC, Akaike Information Criteria.

Figure 1. AMEs of financial stressors on midlife obesity with 95% CIs (N=8,059; observations=36,122).
Note: AMEs (*x*-axis) were calculated from logistic regression estimates (Table 3). If an AME is positive and its CIs do not overlap 0, then the probability of midlife obesity was significantly larger among those who experienced the financial stressor.
AME, Average marginal effect.

and midlife obesity varied significantly. Property debt, unsecured debt, and bankruptcy had significant and relatively large associations with midlife obesity, whereas wealth shocks as well as various types of wealth shocks were not significantly related to obesity. These results and their implications and limitations are discussed in more detail below.

First, results confirmed that debt was among the more robust correlates of midlife obesity.[9,45,46] Debt is a critically important topic in academic research as well as contemporary policy discussions, and results from this study provide further evidence that certain forms of debt—property debt and unsecured debt specifically—are associated with midlife obesity.

Unsecured debt was the most common financial stressor considered and had a particularly robust association with midlife obesity compared with other financial stressors. Although the housing crisis and subsequent Great Recession of 2007 exacerbated problems with indebtedness in the U.S. population, consumer debt has been growing for decades as the traditional trappings of middle-class life, for example, a college degree and homeownership, became considerable financial undertakings that require large loans for the average person.[27] Obesity appears to be an additional consequence of this unprecedented growth in consumer debt and financial distress among lower middle-class families during the early 21st century.

Second, the analysis found evidence that bankruptcy and the various types of bankruptcy, Chapters 7 and 13, had nearly identical associations with midlife obesity—an approximately 5-point increase in the predicted probability of obesity. Although larger than those of other financial stressors, the AMEs for bankruptcy had notably wider CIs owing to the small sample of respondents who experienced bankruptcy. This was especially the case for Chapter 13, which had AMEs ranging from under 0.02 to more than 0.08. Furthermore, the AIC statistic suggested that models using bankruptcy as the single operationalization of financial stressor had a substantially poorer fit than models of obesity that included unsecured debt. Thus, bankruptcy appears to be an important—although rare—correlate of midlife obesity, whereas unsecured debt appears to be a more common but less influential correlate of midlife obesity.

Third, wealth shocks had no association with obesity after adjusting for control variables. To ensure that this absence of a relationship was not because of recoding BMI into a binary indicator of obesity, the results were reproduced in a supplemental analysis using linear regression and BMI. The analysis using BMI came to the same conclusions, that is, wealth shocks had no significant relationship with BMI after controlling for past obesity, family income and wealth, education, employment, and other demographic characteristics. This finding suggests that the association between wealth shocks and obesity did not exist independently of other indicators of economic stability, for example, average income and wealth. Wealth shocks may represent more acute financial experiences than either debt or bankruptcy, which often act as long-term, chronic stressors.[2]

Finally, results from this study offer support to examining the distinct components of broad constructs such as wealth and debt.[2,16,23,35] Researchers often use overall indicators of wealth and debt when studying health-related disparities.[8] Using a single operationalization, for example, net worth, of wealth simplifies theoretical and statistical models but may conceal important relationships. By examining multiple types of debts, the analysis revealed a robust relationship between unsecured debt and obesity that did not exist for the overall measure of indebtedness.

Limitations

Although the analysis found significant relationships between financial stressors for midlife obesity, the study has several limitations that should be noted and addressed by future work. First, the analysis controlled for race/ethnicity and sex but did not examine race or sex differences in the associations between financial stressors and obesity. Given the differences in obesity rates and experiences of financial stressors, a closer examination of these groups will be important. Second, even though the analysis considered a wide variety of financial stressors and controls, the results are still based on self-reports of weight, height, and wealth, which can be unreliable and thus introduce bias. Future research should consider extending this line of research with data that verify self-reports with medical records and tax information. Third, to compare results across an expansive set of financial stressors, the financial stressors were all recoded into binaries (i.e., either 0 or 1 values). This is the only option for bankruptcy and its types, but this meant collapsing the distributions of debt variables. Although supplemental analysis found that higher levels of unsecured debt had a similar association with obesity as the indicator of unsecured debt presented in this study, future research should still test whether the association changes significantly across the distribution of debt. Finally, reverse causality is always a possibility with observational data. Health conditions related to obesity could constrain economic attainment and thus increase one's chances of experiencing debt.[47] Establishing causal relationships was not the aim of this study, but future research should extend the results of this study by testing whether the associations between debt, bankruptcy, and obesity are causal in nature.

CONCLUSIONS

Despite the limitations mentioned earlier, results found that a clearer picture of the relationship between financial stressors and obesity emerged when net worth, debt, and bankruptcy were disaggregated into their distinct components. More specifically, although shocks to net worth and indebtedness were not significantly associated with midlife obesity, unsecured debt and property debt were associated with midlife obesity. Results also revealed the need for obesity prevention interventions targeting populations experiencing financial difficulties related to debt and bankruptcy. As obesity inequalities persist and grow in the coming years, it is imperative that researchers should also explore the legal and political systems that help or hinder individuals from resolving financial problems.

sponsor had a role in study design; collection, analysis, and interpretation of data; writing of the report; or the decision to submit the report for publication.

CREDIT AUTHOR STATEMENT

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SUPPLEMENTAL MATERIAL

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