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"Like you failed at life": Debt, health and neoliberal subjectivity

Elizabeth Sweet

Department of Anthropology, University of Massachusetts Boston, 100 Morrissey Blvd., Boston, MA 02125, USA

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ABSTRACT

The need to more explicitly incorporate political economy and neoliberalism into research on social inequalities in health has been acknowledged across disciplines. This paper explores neoliberalism as it relates to consumer financial debt and internalized feelings of personal responsibility and failure for adults in Boston, Massachusetts. Using data from a mixed-methods study (n = 286), findings show that endorsing a neoliberalized view of personal debt as failure is associated with significantly worse health across a range of measures, including blood pressure, adiposity, self-reported physical and emotional symptoms, depression, anxiety, and perceived stress, even when controlling for several socio-demographic confounders. Results are discussed within the context of both neoliberal economic policies that funnel consumers into chronic debt and neoliberal sociocultural ideologies that promote self-judgments of indebtedness as personal failure. Findings highlight the importance of neoliberalism as an important contemporary social determinant of health and suggest new directions for research to explore.

1. Introduction

Scholarship on social inequalities in health has seen persistent, interdisciplinary calls for greater attention to political economy. Responding in part to what Micaela di Leonardo (di Leonardo, 1997) has called "an appalling lack of respect for intellectual labor" in the social sciences' post-1970 abandonment of political economy, a variety of scholars have advocated a need to reject the "dismissive anti-Marxism" (di Leonardo, 1997) of the contemporary academy and put issues of power and historical context back on the front burner in population health research. Biocultural anthropologists, for instance, have argued that attending to the ways in which contemporary social inequalities are structured by historical political economic processes is necessary for producing accurate models of population health (Hicks and Leonard, 2014; Leatherman and Hoke, 2016). They contend that failing to take such an approach has ethical implications, since it risks naturalizing the social conditions that shape biology and 'blaming the victim' when those conditions are embodied as poor health (Leatherman and Hoke, 2016). Sociologists and epidemiologists have echoed these contentions, especially with respect to research on population-level income inequality and health, calling out the need to incorporate political economy more explicitly into explanatory models to avoid naturalizing social inequities and stratifications (Coburn, 2000; Muntaner et al., 1999; Navarro et al., 2003; Navarro and Shi, 2001; Prins et al., 2015).

Leading theories posit that economic inequality at the population level causes poor health, at least in part, because of the psychological damage of negative social comparisons in stratified, hierarchical societies (Kawachi and Kennedy, 1999; Marmot, 2004; Wilkinson and Pickett, 2011). Critics have noted, however, that emphasizing psychological perceptions and relative social position over actual material disadvantages and class power differences problematically ignores underlying structural components that both create inequality and shape its effects (Coburn, 2000, 2004; Muntaner et al., 1999; Navarro and Shi, 2001). They suggest that psychosocial explanations may (unintentionally) participate in absolving governing bodies and policies from bearing responsibility for health inequities; even the use of the arguably neutral, descriptive term "inequality" over a more politically-charged term such as "class" can be seen as encouraging a depoliticized and naturalized view of health differences, precisely because it strips away the capitalist context within which social relations of inequality are constructed and embedded.

Drawing on these criticisms, a "neo-material" view of health inequality has argued for a more class-centered approach, recognizing that economic inequality is just one aspect of the broader systems of oppression, societal disinvestment, and political disempowerment that characterize late capitalism. Notably, this smaller body of work also includes calls for greater attention to the particular role of neoliberalism in shaping patterns of population health (Coburn, 2004; Muntaner et al., 1999; Navarro, 2007). Most simply understood as the set of economic ideals favoring free markets, privatization, and capital deregulation, neoliberalism constitutes the ideological underpinnings

E-mail address: Elizabeth.Sweet@umb.edu.

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driving government and policy decisions across much of the globe since the 1970s (Harvey, 2005). The neoliberalization of healthcare, in the privatization of delivery and the shift of both treatment and prevention costs to individual consumers, is one obvious way in which population health is affected (Labonté and Stuckler, 2016). But a growing literature is also demonstrating that other measures of neoliberal impact, such as the size and universality of welfare state provisioning and targeted political attacks on the working class, also matter for health (Beckfield and Bambra, 2016; Chung and Muntaner, 2007; Collins and McCartney, 2011; Navarro and Shi, 2001). Much of this work has focused on mapping broad categories of political and welfare state organization (such as social democratic/Nordic and Liberal/Anglo-Saxon models) onto health at the national level (Bambra, 2011; Bambra and Eikemo, 2009; Navarro and Shi, 2001). This research has shown that more neoliberal political tendencies and increases in austerity and retrenched social provisioning are associated with poorer overall population health, and higher levels obesity and stress: phenomena Schrecker and Bambra call "neoliberal epidemics" (Schrecker and Bambra, 2015). These authors also note the role of cultural influence in perpetuating these epidemics, suggesting that notions of welfare dependency and other negative stereotypes that accompany neoliberal political shifts produce conditions in which "existing material disadvantage is reinforced by the continued stigmatization and marginalization of […] certain groups, (Schrecker and Bambra, 2015, pg. 116).

Indeed, recent research suggests that neoliberalism may impact health not only through policies structuring social resources, but also through more insidious ideological processes. Peacock and colleagues (M. Peacock, P. Bissell, & J. Owen, 2014a, 2014b), in a recent qualitative exploration of social comparison among women in England, found evidence that internalization of neoliberal narratives strongly shaped women's experiences of their own and others' behaviors and uses of social services. In a discursive theme they call "no legitimate dependency," deeply held notions of individual personal responsibility around managing one's own life and health caused women to reject all non-individualistic explanations for personal hardship and to apply judgments of dependency and shirking responsibility to both themselves and others. These judgments are clear reflections of neoliberal values of individual autonomy, unconstrained personal freedom and their corollary, personal responsibility (Harvey, 2005). As such they represent what Micaela di Leonardo has called the "neoliberalization of consciousness" in which the lens through we view all aspects of our lives has become increasingly imbued with a neoliberal tinge (di Leonardo, 2008b).

In my own work among communities in Boston, I have found similar processes shaping adults' psychological experiences of financial indebtedness (Sweet et al., 2018). In qualitative research published elsewhere, my colleagues and I found that for many adults living with chronic consumer financial debt, notions of personal responsibility, shame, and failure dominate narratives about their debt experience. Expressing sentiments like "it's my fault, I should have tried to save," "[I felt] horrible, like a loser … [Like] I messed up somewhere in my life," "[You feel] like you failed at life …. You feel like less of a person," and "I feel like I'm a bad person because I can't pay this off," indebted Boston residents conveyed internalized notions of neoliberal doctrine around personal financial responsibility and the shame and guilt that comes from failing to meet expectations of budgetary management (Sweet et al., 2018).

This internalization of neoliberal ideology around personal debt may have important implications for health, especially considering the growing literature now exploring debt as a socioeconomic risk factor for disease. In the decade since the 2008 financial crisis, research exploring health impacts of debt has flourished, finding that indebtedness is associated with depression and poor mental health, low self-rated health, elevated blood pressure, poor sleep quality, and lower aggregate life expectancy (Clayton et al., 2015; Drentea and Reynolds, 2012; Kalousova and Burgard, 2013; Richardson et al., 2013; Sweet et al., 2013; Walsemann et al., 2016; Zurlo et al., 2014). As a relatively young line of inquiry, the bulk of this research has thus far focused more on demonstrating associations than on explicating pathways and mechanisms. A psychosocial stress pathway has been hypothesized (Drentea and Reynolds, 2012; Sweet et al., 2013), and factors involving feelings of social powerlessness and limited 'control over destiny' and life choices seem likely (Whitehead et al., 2016). However, explicit testing of these mechanisms is needed, and current research on debt and health still lacks critical consideration of either the political economic forces structuring consumer indebtedness or how its everyday lived experience adversely impacts health. It is likely that attention to neoliberal processes is key to both of these.

This paper offers a critical biocultural anthropological take on the role of neoliberalism in the impact of consumer debt on health. To be understood as a socioeconomic determinant of health, debt must be considered within the broader framework of neoliberal economic policy that has severely crippled the financial options of Americans while funneling them through an inequitable and predatory credit landscape. An important part of this process is the internalization of neoliberal ideological principles that prioritize personal responsibility and promote self-blame for those who have been caught in what Brett Williams calls "the credit trap" (Williams, 2005). Using data from a mixed methods study of debt and health in Boston, I explore how this internalization of neoliberal ideology around debt maps onto health and well-being. Findings show that internalized feelings of failure associated with indebtedness are strongly related to poor health across a range of psychological, metabolic, and cardiovascular measures. I suggest these aspects of internalized neoliberal ideology are not only important mechanisms in the epidemiology of debt, but that they reinforce the utility of attending more specifically to neoliberal processes in population health research.

2. Study design and methods

Data for this paper come from the "Price of Debt" study, a two-phase, mixed-methods (qualitative, quantitative, and biomarker) study of debt and health in Boston, MA. The qualitative phase of research (Phase 1) consisted of semi-structured interviews with a diverse sample of Boston adults (n = 31) exploring the variety of types of debt and experiences with debt that they had had in their lives. In addition to offering rich qualitative insights into the general experience of indebtedness for Boston adults, findings from these interviews also informed the development of a comprehensive debt questionnaire used in the later phase of the study. Details of qualitative findings from Phase 1, particularly those relating to the internalization of neoliberal ideology in the form of shame and feelings of failure, can be found elsewhere (Sweet et al., 2018). In this paper I focus on the second phase of research, in which qualitatively-informed survey questions about debt experience were explored in relation to self-reported and biomarker measures of health in a larger sample of Boston adults (n = 286). Analyses focus specifically on the subset of participants who reported currently being in debt (n = 213).

Research participants for this phase of the study were recruited from across the Boston area through publicly posted fliers, as well as via word of mouth. All interested potential participants were screened by telephone or email to ensure they met eligibility criteria - being between 18 and 64 years of age and speaking fluent English – before giving informed consent and being enrolled. After enrollment, data were collected from participants using both online and in-person formats. An online questionnaire included an extensive set of demographic questions, a comprehensive debt questionnaire (constructed with insights from Phase 1 interviews), and measures of self-reported health. Trained research personnel collected biomarker and other health measures during an in-person assessment in a private university office. Participants completed the online questionnaire either on their own time prior to the in-person health assessment, or when they came for

their on-campus appointment using a provided laptop computer (thus ensuring that internet access would not be a factor in participation ability). All participants were compensated $50 plus transportation costs at the conclusion of their in-person appointment. All study procedures were reviewed for ethical treatment of human subjects and approved by the Institutional Review Board at the author's university.

2.1. Measures of neoliberal ideologies of debt

Measures of neoliberal ideologies of debt were derived from a set of word association questions contained in the Phase 2 questionnaire, which were in turn based on qualitative insights from Phase 1. In the earlier qualitative phase of the study, interviews had included questions asking participants what words and phrases first came to mind when thinking about their own debt, or about the idea of debt in general. The conversations and lists of words resulting from these questions, as well as major themes that emerged from other aspects of the interviews, prompted the set of Phase 2 survey questions on word associations. While separate questions asked about emotional responses and idiomatic phrases, here I focus on responses to a question about generic descriptive terms. Specifically, questionnaire respondents were asked, "Which of the following terms do you most closely associate with your own personal debt?" They could choose up to three terms from the following list: opportunity, investment, risk, servitude/slavery, personal responsibility, discrimination, failure, success, necessary, limited career or education goals, career or educational goals are possible.

It should be noted that this questionnaire item was not designed to be a measure of neoliberal ideology, *per se*, but rather the degree to which respondents identify, or endorse, a range of terms as representative of their subjective experience of indebtedness. However, a key strength of the mixed-methods design of this study is the ability of qualitative insights to inform interpretation of subsequent research phases. Earlier analyses of Phase 1 qualitative data strongly suggested certain terms in this list, particularly those representing *personal responsibility* and *failure*, are reflective of neoliberalized views of debt (Sweet et al., 2018).

This interpretation is reinforced by cross-disciplinary observations on neoliberal and late capitalist culture. For instance, Nafstad and colleagues (Nafstad et al., 2007), marking the utility of "ordinary words and phrases" as "empirical indicators of ideological change" (pg. 318), show a shift towards more individualistic language terms in Norwegian media content that parallels rising neoliberalization in that country. The work of Peacock and colleagues (2014), described above, similarly points to heightened notions of individualism and condemnation of shirked responsibility as indicative of neoliberal values surrounding health and social service utilization. Furthermore, David Harvey suggests that along with its fundamental insistence on individual freedom in the market, neoliberalism encapsulates a broader ideology in which "individual successes or failures are interpreted in terms of entrepreneurial virtues or personal failings" ((Harvey, 2005)pg. 65). Likewise, in her broader analysis of debtfare states, Susanne Soederberg (2014) argues that under the core neoliberal value of individualism, "failure to achieve economic success is located not in inequities of capitalism; but instead, in individual failings," (pg. 51).

Neoliberal ideology, therefore, which Harvey notes has become "hegemonic as a mode of discourse" in contemporary society (pg. 3), has the effect of conflating a market economy with a market society ((di Leonardo, 2008a) (Gledhill, 2005)). As such, neoliberalism rejects the possibility that structural constraints or systemic inequities shape individual financial autonomy, leaving personal blame and failure as corollaries to the core doctrines of individual freedom and responsibility. Guided by this scholarship on neoliberal ideology and language, as well as the qualitative data and findings from earlier phases of this study, I therefore focus in this paper on the terms 'personal responsibility' and 'failure' as the most salient conceptual reflections of neoliberal ideology as it relates to financial indebtedness.

2.2. Measures of health

Measures of emotional and physical health include both biomarkers and self-reports. Questionnaire items asking about a variety of physical and emotional symptoms were derived from qualitative interview findings in which respondents ascribed specific symptoms to the experience of being in debt. Questionnaire items asked participants (1) whether they ever "feel any of the following physical symptoms as a result of your debt": headaches, insomnia, loss of appetite, indigestion/heartburn, irritable bowel syndrome (IBS), hives, nausea; (2) whether they ever "feel any of the following emotional symptoms as a result of your debt": depression, anxiety, panic attacks; and (3) whether they ever "feel any of the following sexual symptoms as a result of your debt": low sex drive, high sex drive, erectile dysfunction. Scores representing the count of the number of symptoms reported were calculated for each of the three separate questions.

Validated scales measured several aspects of emotional and psychological health, including depressive symptoms with the 20-item Center for Epidemiologic Studies Depression (CES-D) scale (Radloff, 1977), anxiety symptoms with the 21-item Beck Anxiety Inventory (Beck et al., 1988), and perceived stress with Cohen's 10-item Perceived Stress Scale, (Cohen et al., 1983). For each scale, a composite summary score was constructed following standard scoring procedures, with positively worded items reverse-coded.

Systolic and diastolic blood pressures (SBP and DBP) were measured with an automated device. Three separate readings were taken after an initial 10-min resting period, and the second and third readings were averaged and used in analyses. Anthropometric measures of body composition included waist circumference, measured at the natural waist to the nearest cm, as well as height (measured to the nearest 0.1 cm using a Seca 213 stadiometer) and weight (measured to the nearest 0.1 pounds using a Tanita digital scale). Body mass index (BMI) was computed as weight (kg)/height $(m)^2$.

2.3. Demographic and covariate measures

Questionnaire items included self-reports of several demographic characteristics, including: age in years, gender (male, female, or transgender), highest level of education completed (none, primary or middle school, high school or GED, vocational or technical school, some college, college degree, graduate degree; recoded to a "less than college degree" binary variable for ease of interpretation), total personal income for the previous year (reported on a categorical scale ranging from 1 = "less than $5000" to 12 = "$150,000 or more," with responses recoded to the mid-point dollar value of each category for ease of interpretation), whether they share household finances with anyone else (yes/no), their total number of dependents, their total dollar amount of current debt across several debt types (student loans, credit cards, car loans, home mortgage loans, short-term loans, and personal loans from friends or family), how they would describe their race (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Pacific Islander, White, Multiple Race, or Other), and whether they consider themselves to be of Hispanic or Latino ethnicity.

2.4. Analysis strategy

Differences in demographic and health characteristics according to whether participants endorsed (yes/no) the terms 'personal responsibility' and 'failure' in relation to their debt were tested using t-tests for continuous variables and chi-square tests for categorical variables. In order to determine whether health differences between endorsement categories were due to confounding from other demographic factors, separate multiple regression analyses were preformed with each health measure as a unique dependent variable. In these multiple regression models, endorsement of both 'personal responsibility' and 'failure' were

Table 1
Words associated with your own debt.

Term	% and Frequency
Personal responsibility	138 (64.5%)
Risk	87 (40.6%)
Failure	66 (31%)
Necessary	66 (31%)
Servitude/slavery	61 (28.5%)
Career/educational goals limited	47 (22%)
Investment	37 (17%)
Opportunity	31 (14.5%)
Career/educational goals made possible	30 (14%)
Discrimination	5 (2.3%)
Success	3 (1.4%)

tested as independent variables, controlling for the effects of age, gender, race, Hispanic ethnicity, education, income, shared finances, number of dependents, and total debt. A p-value less than 0.05 was used in all analyses as a threshold for determining statistical significance. All analyses with blood pressure as the dependent variables also controlled for the use of anti-hypertensive medications.

3. Results

The frequency with which respondents endorsed each term as a word they associated with their own personal debt is presented in Table 1. The two neoliberal internalization terms ('personal responsibility' and 'failure') were both among the most commonly endorsed terms. Specifically, 'personal responsibility' had the highest frequency, with 64.5% of the sample saying that they associated this term with their own debt. The next most common terms were 'risk', endorsed by 40.6% of the sample, and 'failure' and 'necessary', each endorsed by 31% of the sample. The least common term was 'success' (1.4%).

Table 2 presents socio-demographic characteristics for the total sample, as well as separately by whether they endorsed each of the two neoliberal internalization terms. The overall sample was relatively young, with an average age of just under 34 years, and 56% of the sample was female. The majority of respondents were White (60%), followed by Black or African American (17.8%), Asian (15%), Multiple race (5.6%) and Other race (1.4%), while 5.6% reported having Hispanic or Latin/x ethnicity. Average income was just under $30,000 and average total debt was just under $44,000. It should be noted that in addition to being younger in age, the sample was also relatively highly educated, with only 34.7% not having completed a college degree. These characteristics likely result from recruiting in university-heavy neighborhoods in Boston, and may bias the sample towards an underestimation of the psychological burden and effects of debt on health. Few socio-demographic characteristics varied according to endorsement of neoliberal internalization terms. Those who endorsed the term "failure" in association with their debt were more likely to be female and to not have completed a college degree compared with those who did not endorse the term "failure". Those who endorsed the term "personal responsibility" were more likely to be female and somewhat less likely to have Hispanic ethnicity.

Table 3
Health characteristics, by "failure" term endorsement, mean (Std. Dev.).

	Total Sample (n = 213)	Endorsed "failure"	Did not endorse "failure"	p-value for difference
SBP	114.4 (15.8)	119.4 (17.8)	112.2 (14.4)	0.00
DBP	78.7 (10.8)	80.9 (10.7)	77.6 (10.7)	0.04
BMI	26.7 (5.8)	29.2 (6.7)	25.5 (5.0)	0.00
Waist circumference	88.1 (16.1)	92.1 [15.8)	86.3 (15.9)	0.01
Physical Symptoms count	1.3 (1.5)	1.6 (1.4)	1.2 (1.5)	0.06
Sexual Symptoms count	0.3 (0.5)	0.4 (0.7)	0.3 (0.5)	0.04
Emotional Symptoms count	1.3 (1.0)	1.6 (1.0)	1.1 (1.0)	0.00
Depression	18.4 (11.1)	23.3 (13.3)	16.2 (9.2)	0.00
Anxiety	13.2 (10.4)	16.6 (12.1)	11.6 (9.1)	0.00
Perceived Stress	19.1 (5.6)	20.7 (5.8)	18.3 (5.3)	0.00

Health characteristics are summarized in Tables 3 and 4. The overall health of the sample was relatively good, with average systolic and diastolic blood pressures of 114.4 mmHg and 78.7 mmHg, respectively, both of which are below clinical hypertension thresholds, and average BMI of 26.7. There were significant differences in health between those who endorsed the term "failure" in association with their debt and those who did not. Specifically, those who associated their debt with "failure" had higher systolic and diastolic blood pressure, higher BMI and waist circumference, more self-reported physical, sexual, and emotional symptoms, and higher levels of depression, anxiety, and perceived stress. In multiple regression models controlling for the effect of socio-demographic covariates (Table 5), endorsing the term 'failure' remained significantly associated with worse health across all measures except diastolic blood pressure and self-reported physical symptoms. By contrast, no significant health differences were observed between those who endorsed the term "personal responsibility" in association with

Table 2
Sample demographics, by "failure" and "personal responsibility" term endorsement, mean (Std. Dev.) or % (freq.).

	Total Sample (n = 213)	Endorsed "failure"			Endorsed "personal responsibility"		
		Yes (n=66)	*No (n=148)*	p-value*	*Yes (n=138)*	*No (n=75)*	p-value*
Age	33.7	34.3 (12.9)	33.5 (13.0)	0.67	34.6 (13.4)	32.1 (12.1)	0.16
Female	55.9% (118)	56.9% (37)	55.5% (81)	0.04	61.3% (83)	45.9% (34)	0.03
No College Degree	37.4% (80)	53.0% (35)	30.4% (45)	0.00	35.5% (49)	40.8% (31)	0.44
Income	$28,532	$27,500 (29,348)	$28,986 (28,510)	0.73	$30,760 (29,305)	$24,433 (27,289)	0.12
Shared Finances	21.7% (47)	22.7% (15)	21.6% (32)	0.86	21.7% (30)	22.4% (17)	0.92
# Dependents	0.5 (0.9)	0.6 (1.1)	0.4 (0.9)	0.18	0.5 (0.9)	0.5 (0.9)	0.80
Race							
Nat. Am.	0.5% (1)	1.5% (1)	0% (0)	0.12	0% (0)	1.3% (1)	0.62
Asian	15% (32)	12.3% (8)	16.2% (24)		14.6% (20)	15.8% (12)	
Black	17.8% (38)	21.5% (14)	16.2% (24)		18.2% (25)	17.1% (13)	
White	59.6% (127)	52.3% (34)	62.8 (93)		61.3% (84)	56.5% (43)	
Multiple	5.6% (12)	10.8% (7)	3.4% (5)		5.1% (7)	6.6% (5)	
Other	1.4% (3)	1.5% (1)	1.3% (2)		0.7% (1)	2.6% (2)	
Hispanic	5.6% (12)	4.6% (3)	6.1% (9)	0.67	3.6% (5)	9.2% (7)	0.09
Total Debt	$43,763	$39,319 (77,171)	$45,745 (72,135)	0.55	$41,689 (73,410)	$47,529 (74,291)	0.58

*p-value for difference in demographic characteristic between groups "yes" endorsed and "no" did not endorse.

Table 4
Health characteristics, by "personal responsibility" term endorsement, mean (Std. Dev.).

	Total Sample (n = 213)	Endorsed "personal responsibility"	Did not endorse "personal responsibility"	p-value for difference
SBP	114.4 (15.8)	114.9 (16.7)	113.6 (14.2)	0.57
DBP	78.7 (10.8)	79.2 (11.0)	77.6 (10.3)	0.30
BMI	26.7 (5.8)	26.7 (5.7)	26.6 (6.0)	0.86
Waist circumference	88.1 (16.1)	87.6 (16.2)	89.0 (15.9)	0.54
Physical Symptoms count	1.3 (1.5)	1.4 (1.5)	1.2 (1.5)	0.55
Sexual Symptoms count	0.3 (0.5)	0.3 (0.6)	0.3 (0.5)	0.65
Emotional Symptoms count	1.3 (1.0)	1.3 (1.0)	1.3 (1.0)	0.80
Depression	18.4 (11.1)	18.5 (11.6)	18.1 (10.2)	0.79
Anxiety	13.2 (10.4)	13.3 (10.5)	13.1 (10.3)	0.87
Perceived Stress	19.1 (5.6)	19.0 (5.6)	19.3 (5.4)	0.71

their debt and those who did not.

4. Discussion

The findings of this paper show that certain aspects of neoliberal ideology are commonly internalized in people's views of their own debt, as reflected in their endorsement of specific descriptive words and phrases. Furthermore, findings show that certain aspects of neoliberal ideology are associated with poor health. In particular, those who internalize neoliberal discourses of self-blame by viewing their debt as a form of 'failure' have higher blood pressure and body composition, more debt-related symptomatology, and worse emotional and psychological health. The magnitude of effect sizes for many of these health measures is quite large – 6 mm/Hg higher systolic blood pressure, 3 units higher BMI, and 7 points higher depression scores, even in adjusted models, suggest potentially significant health effects. The fact that a sense of failure remains associated with almost all of the health measures after controlling for potential confounding effects of socioeconomic status, race and ethnicity suggests that these are robust relationships and contributes to evidence that internalized neoliberalism may be damaging to health.

These findings also help to advance knowledge around the impact of debt on health. Growing epidemiological evidence suggests that debt is a socioeconomic determinant of health (Richardson et al., 2013; Sweet et al., 2013), but the mechanisms through which it operates remain largely unexplored. Consistent links between indebtedness and adverse emotional health outcomes suggest that elevated stress and other psychosocial factors could play key roles in mediating the impact of debt on aspects of physical health. The findings presented here suggest that a more specific psychological manifestation of indebtedness in the form of a sense of personal failure may also be an important factor, and that in contemporary neoliberal society this could represent an especially salient embodiment of the adverse experience of having financial debt. Indeed some sense of personal blame has likely been an enduring aspect of the experiential meaning of debt for centuries. In his extensive historical analysis of debt, David Graeber (2011) points out that an inability to restore equality between two parties when a debt cannot be paid is inherently painful, and that in several European languages words for debt are synonymous with 'fault,' 'sin,' and 'guilt.'

Along these lines, the cognitive association of personal debt with failure also evokes phenomena of shame and stigma, which are both independently significant as social determinants of health and may be in need of further investigation in the epidemiology of debt. Research in psychology suggests that feelings of shame, which can arise from either explicit external sources (i.e. from being directly or publicly shamed) or from internal self-evaluations based on perceived social disapproval, are associated with adverse psychological health outcomes and increased cortisol and pro-inflammatory cytokine activity (Dickerson, Gruenewald and Kemeny, 2004a; Dickerson, Kemeny, Aziz, Kim and Fahey, 2004b; Starrin et al., 2009). There is also evidence that social evaluative threat caused by fear of exposed failure is a critical component of the general cognitive processes of shame (Dickerson, Gruenewald, et al., 2004a, 2004b). This suggests that shame could be an inherent component of a cognitive association of financial debt with failure.

In their analysis of the neoliberal context of shame, Peacock and colleagues (Marian Peacock, Paul Bissell and Jenny Owen, 2014a, 2014b) suggest that this social dimension may take an especially insidious and structural, rather than interpersonal or social comparative, form. They point to the role of neoliberal ideology in promoting classist social derision of the lifestyles and purchasing decisions of the poor. Under these conditions, being in debt represents not only a shameful break of economic and social bonds but also a vulnerable target for the "vicious stereotyping and othering" of neoliberal ideology (Marian Peacock, Paul Bissell and Jenny Owen, 2014a, 2014b, pg. 393). The role of stigma and stigmatization in this process also cannot be ignored. Link and Hatzenbuehler (Link and Hatzenbuehler, 2016) have defined stigma as encompassing a suite of concepts involving the labeling of difference and the exploitation of those labels to exercise systemic "disapproval, rejection, exclusion, and discrimination," (pg. 655). They note that stigma is an under-recognized determinant of health, social inequality, and life chances. In the case of financial debt, the

Table 5
Multiple Regression Results, Association of 'Failure' and 'Personal Responsibility' Endorsements with Health Measures, controlling for socio-demographic covariates.

	"Failure"		"Personal Responsibility"	
	beta and [95% CI]	p-value	beta and [95% CI]	p-value
Systolic Blood Pressure	6.03 [2.27,9.79]	0.00	0.83 [-2.92,4.58]	0.66
Diastolic Blood Pressure	2.25 [-0.62,5.12]	0.12	0.75 [-2.06,3.57]	0.60
BMI	2.99 [1.36,4.62]	0.00	−0.03 [-1.67,1.61]	0.97
Waist circumference	3.98 [-0.01,7.98]	0.05	−0.28 [-4.22,3.66]	0.89
Physical Symptom Count	0.37 [-0.10,0.85]	0.12	0.03 [-0.44,0.49]	0.91
Sexual Symptom Count	0.20 [0.02,0.37]	0.03	−0.01 [-0.18,0.16]	0.90
Emotional Symptom Count	0.42 [0.12,0.73]	0.01	−0.05 [-0.36,0.25]	0.72
Depression	7.03 [3.67,10.40]	0.00	1.15 [-2.26,4.55]	0.51
Anxiety	4.70 [1.56,7.84]	0.00	0.16 [-2.96,3.29]	0.92
Perceived Stress	2.60 [0.93,4.27]	0.00	0.05 [-1.63,1.73]	0.95

Table 6
Primary reasons for debt, % (freq.), n = 268.

Paying for education	54.8% (147)
Basic living expenses (food, utilities)	15.7% (42)
Housing	10.1% (27)
Personal consumer goods	6.0% (16)
Job loss	3.0% (8)
Substance abuse or addiction	2.2% (6)
Child or dependent expenses	1.8% (5)
Medical costs or disability	1.5% (4)
Late fees and penalties	1.1% (3)
Divorce	0.7% (2)
Failed investment	0.7% (2)
Legal expenses	0.7% (2)
Spousal or family debt	0.7% (2)

stigmatized label of indebtedness carries a social evaluation of having failed to adequately manage personal finances, which within neoliberal discourse represents not just financial failure but a deeper personal failure as well.

This observation is echoed in the earlier qualitative finding of this study that being in debt feels "like you failed at life" (Sweet et al., 2018), which is a stark illustration of how powerful the stigmatizing and shaming judgment of neoliberal discourse in contemporary society can be. It also points to the somewhat overlooked possibility that neoliberalism may have as much, or more, power as cultural doctrine as it has as economic policy. In their recent book detailing the history of neoliberal thought, Dardot and Laval (Dardot and Laval, 2013) suggest that neoliberalism should in fact be understood first and foremost as a way of life, a new subjectivity that shapes the form of our very existence. In tracing its intellectual development, particularly in France and Germany in the first half of the 20th century, they show that from the beginning the architects of neoliberal philosophy conceptualized their project as a primarily social one. Describing a shift in emphasis from the 'specialization' of classical liberalism to the Social Darwinian-inspired 'competition' that defines neoliberalism (Dardot and Laval, 2013), Dardot and Laval show how the neoliberal project became fixated on the notion of an ideal society characterized by free individuals and free competition. While the role of government under neoliberalism is to ensure the necessary conditions for such a free state, the ultimate success of the neoliberal project was seen by founding thinkers to rest on the institution of a set of cultural mores that would align public opinion with free market principles. The bedrock of this neoliberal cultural order are the twin ideological pillars of competition and individual responsibility, which Dardot and Laval note American neoliberals were especially adept at diffusing via media and higher education channels (Dardot and Laval, 2013).

The cultural and ideological foundation of neoliberalism has important implications for its potential impact on health, particularly as it relates to the socioeconomic condition of consumer debt. By setting the stage for all neoliberal social actors to be viewed through the lens of competition - as either winners or losers, successes or failures, and with only themselves to be held accountable - neoliberalism creates a wholly new mode of subjectivity: an "accountable and financial subjectivation" (Dardot and Laval, 2013, 15). Within this new subjectivity, viewing financial indebtedness as a failure of the self is a natural extension of core neoliberal principles. Again, the motivation for this response may be more cultural than economic: while neoliberalism operates formally as an economic and policy agenda supported by an underlying ideology, its more insidious effects may be as a widely diffused cultural orientation that shapes the way people view themselves and others.

Infiltrating public discourse on multiple levels is of course one of the primary ways that cultural views can be solidified, and here the embedding of neoliberal ideas in the morality plays of contemporary political theater cannot be ignored. Neoliberal ideology has been tightly aligned with the moral right in the US, UK, and elsewhere for decades, in its opposition to state intervention and social benefit programs (Harvey, 2005). Neoconservatives frequently exploit discourses of personal freedom and responsibility to spur class and race tensions while pointing an accusing finger at the poor for bearing the consequences of an unfair system. In a recent example, Republican congressman Jason Chaffetz of Utah said of poor Americans, "rather than getting that new iPhone that they just love and want to go spend hundreds of dollars on that, maybe they should invest in their own healthcare" (Fung, 2017). Reinforcing views of personal finances as reflections of moral worth, Chaffetz's comments suggest that the poor's health problems are the result of bad personal spending decisions rather than lack of resources. By extension, this line of thinking supports a view of consumer debt's link with poor health as due to personal failings when, ironically, the findings of this paper suggest it is that judgment itself that may do the real health damage.

Furthering this irony is the fact that the state of American consumer debt is largely the result of neoliberal economic policies orchestrated to maintain an entrenched credit economy at the expense of economic mobility and a real social wage: what Susanne Soederberg has called "debtfarism" (Soederberg, 2014). Beginning in the 1970s, federal deregulation of banking and finance meant an increased capacity for credit lenders to skirt state usury laws and interest rate caps and "democratize" the extension of credit to underserved markets through subprime and predatory mechanisms (Williams, 2005). At the same time, declining real wages and employment security, increasing costs of housing and education, and reductions in social benefit programs meant that for many Americans credit was the only option for financial survival (Williams, 2008). Between 1989 and 2004 debt among lower income American households rose 247% (Grow and Epstein, 2007), and data consistently shows that this indebtedness is due more to basic living expenses than anything else; Americans go into debt to pay for living essentials like food and housing, not iPhones (Garcia, 2007). This study found the same thing: when asked what one thing their debt was primarily because of, participants listed housing, utilities, food, and education as the top factors, accounting for 80% of all responses (see Table 6).

The fact that indebtedness has become standard fare in the financial strategies of many American households is not an unintentional side effect of free market liberalization. Rather, as Soederberg's (Soederberg, 2014) analysis of 'debtfarism' describes, this outcome is part of a broader 'poverty industry' program aimed at generating, maintaining, and exploiting the financial powerlessness of the working class. The poverty industry does not only encourage reliance on credit as a replacement for wage growth and a strong welfare state, but also profits from the resulting debt entrapment. As Soederberg points out, credit, unlike money, is privately created – "money manufactured by capitalists" – and as such plays a unique role in the process of capital accumulation (pg. 11). The credit industry is wildly profitable for Wall Street: a handful of US banks are not only the largest stakeholders in credit card companies but many are also the primary financiers of predatory payday lenders (Grow and Epstein, 2007; Soederberg, 2014). These multi-billion dollar industries further exploit consumers through the leveling of interest, fees and penalties, all of which are disproportionately higher for lower income borrowers and further illustrates the insidious social power and structural violence inherent in neoliberal debtfarism (Grow and Epstein, 2007; Soederberg, 2014).

Ideology plays a critical lubricating role in this process. Making borrowers feel personally responsible, guilty and like 'failures' for their own financial disempowerment and exploitation is a key mechanism through which the neoliberal poverty industry obscures and naturalizes its abusive tactics (Soederberg, 2014). This construction of neoliberal subjectivities highlights the 'double whammy' of neoliberal policy (governance) and ideology (culture): neoliberalism does not just create inequality and force people into disadvantaged positions, it layers moral judgments on top of their misfortune and encourages internalization of those judgments as a neoliberalized view of the self. A similar process has been noted with respect to food and body image: as

neoliberal policies push lower income populations into poor quality, energy-dense diets, neoliberal culture encourages self-blame and individual responsibility for poor lifestyle choices and obesity – a phenomenon Otero and colleagues (Otero et al., 2015) have called "the neoliberal diet" and Mayes (2016) has called the "biopolitics of lifestyle."

These processes of neoliberal subjectivation have consequences for the way scholarship might approach neoliberalism as a determinant of population health. In their recent review of the current state of social epidemiology, Kawachi and Subramanian (Kawachi and Subramanian, 2018) note that understanding health inequalities "continues to be the bread & butter" of the discipline, and that going forward the field should include "more focus on the causes and not just the consequences of income inequalities," (pg. 3). They point to neoliberalism and culture as two of the most salient causes in need of further exploration. The findings of this paper suggest that the intersection of those two causative factors - the culture of neoliberalism and its construction of neoliberal subjectivities – may be an especially important factor to explore.

Indeed any consideration of the origins of social inequalities and their impact on health should be mindful of the fact that culture and political economy are inherently intertwined. As biocultural anthropologists Hicks and Leonard (Hicks and Leonard, 2014) have observed, access to power and wealth are key factors in determining who shapes the production of social knowledge and meaning: "culture is constructed within relations of inequality," (pg. 530). In this sense, culture cannot be considered in isolation from either policy or ideology, and neoliberalism is both. Neoliberalism's strength lies in melding political, government, and social agendas in mutually reinforcing service of free market competition. The production of neoliberal subjectivities, internalizing core ideological principles of individualism, entrepreneurialism, and competition, is an essential component in that process. As population health research moves toward more explicitly incorporating issues of political economy and culture, it will need to be mindful of this complex nature of neoliberalism and devise new methods for identifying and capturing it.

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