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Sick of our loans: Student borrowing and the mental health of young adults in the United States

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A B S T R A C T

Student loans are increasingly important and commonplace, especially among recent cohorts of young adults in the United States. These loans facilitate the acquisition of human capital in the form of education, but may also lead to stress and worries related to repayment. This study investigated two questions: 1) what is the association between the cumulative amount of student loans borrowed over the course of schooling and psychological functioning when individuals are 25–31 years old; and 2) what is the association between annual student loan borrowing and psychological functioning among currently enrolled college students? We also examined whether these relationships varied by parental wealth, college enrollment history (e.g. 2-year versus 4-year college), and educational attainment (for cumulative student loans only). We analyzed data from the National Longitudinal Survey of Youth 1997 (NLSY97), a nationally representative sample of young adults in the United States. Analyses employed multivariate linear regression and within-person fixed-effects models. Student loans were associated with poorer psychological functioning, adjusting for covariates, in both the multivariate linear regression and the within-person fixed effects models. This association varied by level of parental wealth in the multivariate linear regression models only, and did not vary by college enrollment history or educational attainment. The present findings raise novel questions for further research regarding student loan debt and the possible spillover effects on other life circumstances, such as occupational trajectories and health inequities. The study of student loans is even more timely and significant given the ongoing rise in the costs of higher education.

Over the past three decades, the cost of higher education in the United States has increased by over 250% adjusting for inflation (Baum and Ma, 2012). Simultaneously, wages for the average family have stagnated or declined (Grafova, 2007). These two trends have made borrowing money for college essential for many students. In 2012, student loans amounted to a staggering $1 trillion in the United States, making it the largest source of loans second only to home mortgages (Chopra, 2012). Yet, unlike mortgages and most other loans, student loans are unique because they are typically not forgiven, even in standard bankruptcy filings (Hancock, 2009; Sallie Mae, 2012). Although all non-student sources of debt fell a combined $1.53 trillion between 2008 and 2012, student loan debt rose by $293 billion during this same period (Federal Reserve Bank of New York (2012)). In 2011, the average student loan balance was $23,300, with 40.1% of persons under age 30 holding some student loan debt (Brown et al., 2012). The goal of the present study is to examine whether student loans could be considered an aspect of one's socioeconomic position that is related to psychological functioning, conditional on other measures of socio-economic position.

1. Background

A significant body of research documents that greater socioeconomic advantage is associated with better mental health (Aneshensel, 2009; Gilman et al., 2002; Walsemann et al., 2009). This literature has generally focused on the indicators of income, education, and/or occupation. Although very useful, a growing

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literature has called for more comprehensive studies of socioeconomic position, and the addition of factors such as wealth, loans, and debt (Cubbin et al., 2011; Pollack et al., 2007; Sweet et al., 2013). The present study examines how student loans incurred from post-secondary educational expenses are related to mental health in early adulthood. We focus on student loans because of the recent concerns raised by policymakers about the amount of debt being incurred by current U.S. college students (Johnson et al., 2012) as well as the changes to repayment terms and interest rates that have recently been implemented by the U.S. government (U.S. Department of Education, 2014).

Student loans are granted for the specific purpose of facilitating educational attainment among individuals who may not otherwise have the financial resources to attend college. Unlike most other types of loans, student loans come with obligations for repayment and are difficult to discharge even in standard bankruptcy filings (Hancock, 2009; Sallie Mae, 2012). Students may worry about these loans as they obtain them during school, as well as during the repayment period after graduation. Thus, these loans may confer some amount of psychosocial stress for student borrowers. A related body of literature documents the strong and persistent link between financial strain, the psychosocial stress related to financial strain, and mental health (Ferraro and Su, 1999; Kahn and Pearlin, 2006; Selenko and Batinic, 2011). For example, Kahn and Pearlin (2006) found that financial strain was associated with higher levels of depressive symptoms after adjustment for household income and educational attainment, whereas Ferraro and Su (1999) and Selenko and Batinic (2011) found similar associations with psychological distress.

Emerging research on debt, wealth, and health follow in similar fashion. These studies find that debt, in general, is associated with psychological functioning (Brown et al., 2005; Selenko and Batinic, 2011), anxiety (Cooke et al., 2004; Drentea, 2000), and mental disorders (Jenkins et al., 2008). A nationally representative study of U.S. young adults found that those who experienced high financial debt relative to assets reported higher levels of perceived stress and depressive symptoms, even after adjustment for childhood socioeconomic status and other factors (Sweet et al., 2013). A study of mostly older adults in Miami-Dade County found that individuals reporting higher amounts of indebtedness were more likely to experience depressive symptoms, anxiety, and anger (Drentea and Reynolds, 2012). Further, the association between indebtedness and mental health was more consistent than the association between socio-economic position and mental health. Another study of U.S. homeowners found that those in default or foreclosure reported poorer mental health and more somatic symptoms than homeowners not in default or foreclosure (Cannuscio et al., 2012). Thus, the broad literature on socioeconomic position and more recent literature on debt, wealth, and similar issues inform the present study.

Our primary question is whether student loans are associated with poorer psychological functioning. This association might be assessed in at least two different ways. Consider the college student who obtains $1000 in student loans annually over the course of 4 years in college. That amount of $1000 might be associated with poor psychological functioning while enrolled in school. Nonetheless, it is plausible that while in college, such loans have a modest effect on this student because she is focused more on her studies and less on her economic circumstances. After graduation, however, the cumulative burden of $4000 may become much more salient given the requirement to repay these loans. Thus, subsumed within our primary research question are two interrelated questions: 1) what is the association between the cumulative amount of student loans borrowed over the course of schooling and psychological functioning in early adulthood; and 2) what is the association between annual student loan borrowing and psychological functioning among students who are enrolled in college?

Our second question examines whether family wealth serves as a moderator. On the one hand, a $1000 loan may be quite important to a student from a poor family, but inconsequential to a student from a wealthy family. This suggests that the association between student loans and mental health will be stronger among individuals from disadvantaged backgrounds than those from wealthier families. On the other hand, student loans provide important economic capital that makes educational attainment possible (Bettinger, 2004). Because education is strongly linked to better mental health (Miech and Shanahan, 2000; Walsemann et al., 2009), student loans may be positively associated with psychological functioning among students from disadvantaged backgrounds if those loans help facilitate access to higher education. These observations motivate the investigation of family wealth as a moderator.

Our third question concerns whether the association between student loans and psychological functioning varies by enrollment in 2-year versus 4-year colleges. Students enrolled at 4-year colleges generally pay higher tuition per credit hour and are more likely to pay residence fees to live on campus than those attending 2-year colleges (Baum and Ma, 2012). Some students may attend a 2-year college because they do not have the preparation to attend a 4-year college, whereas others may choose a 2-year college to minimize costs (Bozick and DeLuca, 2005). Also, 2-year college students are comprised of both those who desire a terminal 2-year degree and those who wish to transfer to a 4-year college. Hence, our analyses consider enrollment history as another moderator.

Our last question concerns educational attainment. Individuals who drop out of college prior to attaining their degree may not have the requisite skills and credentials to secure a job that will allow them to pay off their student loans (Card, 1999). A recent report from the Institute for Higher Education Policy found that individuals in the U.S. who do not complete their college degree are more likely to be delinquent or default on their loans (Cunningham and Kienzl, 2011). As such, we investigate whether the association between student loans and psychological functioning will be stronger for those who did not attain a college degree than those who did.

2. Methods

2.1. Sample

We analyzed data from the National Longitudinal Survey of Youth 1997 (NLSY97), a nationally representative sample of 8984 individuals born between 1980 and 1984 who were residing in the U.S. in 1997 (U.S. Bureau of Labor Statistics (2013)). Respondents were interviewed annually beginning in 1997, with data collection ongoing. At baseline, respondents were 12–17 years old; in 2010, the most recent wave of data collected, respondents were 25–31 years old. Over 80% of the sample ($n = 7470$) was retained through this 13-year period.

We restricted our sample to respondents who had enrolled in college for at least one semester by 2010 ($n = 4775$). We excluded 132 respondents (2.7%) due to item non-response on selected covariates, resulting in an analytic sample of 4643. This analytic sample pertains to the cross-sectional analysis (described below) and was used to answer our research question pertaining to the cumulative amount of student loans borrowed and psychological functioning when respondents were 25–31 years old. The within-person fixed-effects analysis constructed a similar, but slightly different analytic sample due to the nature of the analysis. This sample included respondents who were currently enrolled in college in any of the years psychological functioning was assessed