PUBLIC HEALTH 128 (2014) 239–245

Available online at www.sciencedirect.com

Public Health

journal homepage: www.elsevier.com/puhe

Original Research

Mortgage debt as a moderator in the association between unemployment and health

C. Lau [a], L.A. Leung [b,*]

[a] Carthage College, 2001 Alford Park Drive, Kenosha, WI 53140, USA
[b] Brown University, Box G-S121-6, Providence, RI 02912, USA

ARTICLE INFO

Article history:
Received 11 June 2013
Received in revised form
20 October 2013
Accepted 11 December 2013
Available online 13 February 2014

JEL classification:
I10
J64
R20

Keywords:
Unemployment
Self-rated health
Mortgage debt

ABSTRACT

Objective: While homeownership is generally viewed as good for society, the consequences of the concomitant mortgage debt have not been well examined. This study investigates the role of mortgage debt as a moderator in the relationship between unemployment and health.

Study design: A cross-sectional analysis of a representative sample of US homeowners aged 38–46 surveyed in 1998–2006.

Methods: Subjects were 3667 adults living in owned homes aged 38–46 who reported being either employed or unemployed. Logistic models were performed using maximum likelihood estimation to estimate the relative risk of self-reporting fair or poor health with regard to employment status and how employment status interacted with mortgage status.

Results: Among homeowners, being unemployed for more than 13 weeks with a mortgage is associated with a higher likelihood of reporting fair or poor health (odds ratio 2.38, 95% confidence interval 1.28–4.45). Being unemployed for more than 13 weeks with a mortgage loan that is more than 80% of the value of the home is associated with a greater likelihood of reporting fair or poor health (odds ratio 8.99, 95% confidence interval 2.50–32.29).

Conclusion: Among homeowners, mortgage debt increases the association between unemployment and poor health. In an economy where periods of high unemployment are likely to coincide with periods of falling home prices, homeowners may find themselves unemployed just when their homes lose value, intensifying financial stress.

© 2013 The Royal Society for Public Health. Published by Elsevier Ltd. All rights reserved.

Introduction

In theory, there are a number of pathways through which unemployment can impair health. Unemployment can indirectly affect health through reducing health care spending or foregoing health insurance coverage. Unemployment can directly affect health through financial stress. Epidemiological studies have found that stress plays a role in cardiovascular disease,[1] and affects both the contraction and progression of certain diseases.[2,3] Conversely, poor health can lead to unemployment. Previous studies have shown that those in poor health are selected for unemployment[4] and that unemployment spells are longer for individuals with health problems.[5] Therefore, the association between unemployment and health status reflects causal pathways in both directions.

* *Corresponding author*. Tel.: +1 401 863 7345; fax: +1 401 863 3489.
E-mail addresses: clau@carthage.edu (C. Lau), leigh_ann_leung@brown.edu, leighannleung@gmail.com (L.A. Leung).
0033-3506/$ – see front matter © 2013 The Royal Society for Public Health. Published by Elsevier Ltd. All rights reserved.
http://dx.doi.org/10.1016/j.puhe.2013.12.012

Previous studies have examined the association between unemployment and mental health and found that unemployment was associated with an increase in depressive symptoms and heavy drinking.[6–11] Other studies have examined unemployment and mortality and documented that unemployment significantly increased mortality rates in the short-run.[12–16] Studies that used self-rated health as an outcome found that job loss was positively associated with poorer overall self-rated health[17] and negatively associated with health satisfaction.[18] However, other studies have concluded that job loss was not significantly associated with self-rated health[19] nor was it associated with hospitalizations for stress-related diseases.[20]

Existing studies have not differentiated unemployed individuals by homeownership status or mortgage indebtedness. If financial stress, as represented by mortgage indebtedness, modifies the relationship between unemployment and health, then it may help to explain some of the mixed findings in the literature. Although homeowners generally have better health status compared to renters,[21,22] it has been hypothesized that there are differences in the association between unemployment duration and health status among homeowners that arise from mortgage indebtedness.

The hypothesis was tested with the data from the National Longitudinal Survey of Youth (NLSY) 1979 cohort. This is the first study to directly incorporate mortgage debt into the relationship between health and unemployment. Previous studies have separately documented the relationship between health and unemployment[4,7,18,23,24] or health and debt.[25–27] Recognizing that having poor health both reduces the ability to work and increases borrowing to cover medical expenses, this study models the relationship between health and unemployment interacting with mortgage debt at the same time adjusting for relevant socio-economic characteristics such as the household's net worth.

Incorporating mortgage debt in the association between unemployment and health is important because, according to the U.S. Census Bureau, as of 2009, there were 74.5 million household homeowners and while a minority outright own their homes with no mortgage, 67.5% had mortgages. Moreover, 95% of all new single-family homes were purchased with a mortgage in 2009. Although mortgage debt is increasingly the norm, the role of debt in the relationship between unemployment and health has not been documented and homeownership through mortgage financing may alter the relationship. A homeowner who is unable to maintain monthly mortgage payments must sell his home, potentially during unfavourable market conditions, or risk foreclosure. As a result, mortgage financing can intensify the financial stress of unemployment precipitating a decline in health status.

Methods

Study sample

The individual level data from the National Longitudinal Survey of Youth (NLSY), a nationally representative survey administered by the Bureau of Labor Statistics (BLS) of the U.S. Department of Labor was used in this study. The 1979 cohort consists of individuals born between years 1957 and 1964. An extended health module was administered after a respondent turns forty years of age (40+ health module) which for the 1979 cohort, corresponded to waves 1998, 2000, 2002, 2004, and 2006. A cross-sectional sample of 3667 homeowners was constructed using respondents from the 40+ health module who also reported residing in owner-occupied housing and having participated in the labour force in past year at the time of interview. The 40+ module has been used in this study since it has the richest health data and provides a control for age. The sample was limited to those who are currently in the labour force so that only individuals who are currently working or actively seeking employment are studied. This also excludes individuals who leave the labour force due to health issues that limit their ability to work.

Variables

Respondents to the health module were asked to self-rate their health on a scale of 1 for excellent to 5 for poor. This self-rated health scale was converted to a dichotomous variable equal to one if the response equalled 4 or 5 and zero otherwise. Respondents were also asked questions from the Center for Epidemiologic Studies Depression (CES-D) scale, one of which asked 'How often have you felt [depressed] during the past week?' Respondents were asked to select the frequency of feeling depressed from categorical ranges starting with 0 for rarely or none of the time or one day during the week; 1 for some or a little of the time or 1–2 days; 2 for occasionally or a moderate amount of the time or 3–4 days; to 3 for most or all of the time or 5–7 days. A dichotomous variable for whether an respondent felt depressed was constructed as equal to one if the respondent felt depressed at least a little of the time and zero otherwise.

Unemployment duration was measured as the number of weeks of unemployment in the previous year. According to the Bureau of Labor Statistics, in 2009, the average unemployment duration was a little less than 14 weeks. Since the financial stress resulting from unemployment likely depends on the duration of unemployment, this study constructed to a dichotomous variable for short-term unemployment and another dichotomous variable for medium-term unemployment. Short-term unemployment equals one if a respondent was unemployed for more than six weeks and zero otherwise. Medium-term unemployment equals one if a respondent was unemployed for more than thirteen weeks and zero otherwise.

The loan to value (LTV) ratio defined as the dollar amount of mortgage loan outstanding divided by the self-reported dollar value of the primary residence was used to measure the excessive mortgage indebtedness. LTV measures the degree of leverage used to finance the respondent's home. It has been hypothesized that individuals experience greater stress when unemployed if the burden of mortgage indebtedness is excessive. Therefore, high LTV was defined as greater than 80% in accordance with the mortgage financing industry standard for the amount of equity required to be categorized as a conforming loan. This cutoff for a conforming loan is a critical role in the banks' determination of whether a borrower is not only financially able to maintain the existing mortgage, but also able to refinance the mortgage or in the case of a

Download English Version:

https://daneshyari.com/en/article/1087516

Download Persian Version:

https://daneshyari.com/article/1087516

Daneshyari.com