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Strain Drain: A Qualitative Analysis Of The Impact Of Mortgage Strain Recovery Strategies On Health Outcome And Behaviors

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1. ABSTRACT

When individuals enter into mortgage delinquency or foreclosure, the benefits of home become threatened. How individuals respond to economic stress, and the strategies they use to recover, provides insight into personal spending priorities, the importance of healthcare for such individuals, and resulting health outcomes and behaviors. This paper aims to explore how foreclosure and mortgage strain act as distal or upstream determinants of health for a small sample of individuals from an urban African-American community. It presents a qualitative analysis of how individuals' experiences with, attitudes concerning and circumstances surrounding mortgage delinquency, and their recovery from it, impact health. It examines the coping strategies used by citizens to maintain their status as homeowners and the concessions they make towards other essential needs, such as food, education and healthcare. Data in the form of semi-structured interviews was collected by a team of researchers (Danya E. Keene and Amy Castro Baker) in a neighborhood situated in the northeastern United States. Original transcripts were conferred by Keene, and a secondary analysis was completed for this study driven by codes relating to employment, social networks, social services, payments, and spending strategies. Final analysis showed that additional employment, loan modifications, spending reprioritization, government support, and social support were various strategies by which the interviewees attempted to recover from mortgage strain. Each strategy was associated with an increased risk to various negative health outcomes as evidenced in previous literature. The primary health problems experienced by the interviewees were mental health symptoms such as stress, fatigue and depressive symptoms; an increased risk of cardiovascular and respiratory diseases; and decreased use of healthcare services.

2. ACKNOWLEDGMENTS

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4. INTRODUCTION

"A home is supposed to be our ultimate evidence that in America, hard work pays off, and responsibility is rewarded."

–President Barack Obama, 6 August 2013

Homeownership remains a primary indicator of success towards achieving the American dream (Drew & Herbert, 2012). Promoted and supported by federal and state policies since the 1930s, homeownership is often linked to financial security and personal independence, and bipartisan supporters claim it increases civic activity, reduces crime, and encourages cognitive and non-cognitive development in children (Barth et al., 2015). This, alongside research that associates homeownership with economic and social benefits (Drew & Herbert, 2012) and greater self-reported life satisfaction, self-esteem, and mental health (Cannuscio et al., 2012), promulgates the belief that the pursuit and attainment of homeownership should be a primary objective of American citizens.

When the security of the home is endangered by financial strain and individuals enter into mortgage delinquency or foreclosure, these benefits become threatened. How individuals respond to economic stress, and the strategies they use to recover, provides insight into personal spending priorities, the importance of healthcare for such individuals, and resulting health outcomes and behaviors. An exploration of such strategies, and the hierarchy by which individuals prioritize various payments, should elucidate the status of health care for those suffering from mortgage strain. As financial strain is often coupled with other poor social determinants of health, these individuals may experience multiple levels of vulnerability that impact his or her health and that of the community.

The 2008 economic recession in the United States has also created a unique opportunity for new research addressing sudden financial strain or crisis and its impact on health. The rapid decline of home values coupled with sudden and unexpected high unemployment rates forced many individuals and families into poorer social conditions: in 2008 the US labor market lost 3.6 million jobs and in 2009 an additional 4.7 million were lost (FCIC, 2011). Subsequent upheavals in socioeconomic status, a significant social determinant of health, threatened healthcare access, utilization, and outcomes, and qualified many for governmental aid programs such as Temporary Assistance for Needy Families (TANF- a welfare program)

(US Welfare System, 2015), Medicaid, and unemployment. The health of populations is directly influenced by such economic conditions: unstable housing and inconsistent income negatively impact individuals' and the population's health through poorer health statuses, and concessions to or changes in priorities and behavior regarding healthcare (Currie & Tekin, 2014). While previous research has begun to untangle the impact of unemployment, financial strain and foreclosure on health, there is ample room for discussion on the individual experience with mortgage strain, strategies to make ends meet, and the influences these strategies have on health and healthcare utilization.

This paper aims to explore how foreclosure and mortgage strain act as distal or upstream determinants of health for a small sample of individuals from an urban African-American community. Using data from semi-structured interviews, it discusses how individuals' experiences with, attitudes concerning and circumstances surrounding mortgage delinquency, and their recovery from it, impact health. It analyzes the coping strategies used by citizens to maintain their status as homeowners and the concessions they make towards other essential needs, such as food, education and healthcare. It attempts to link these strategies to existing research on health outcomes and behaviors to elucidate the lived experiences of such clinical associations.

5. BACKGROUND

5.1 *The Great Recession: Risky Mortgages & Predatory Lending*

In 2008 the United States suffered a debilitating economic recession. During the late 1990s and early 2000s, a decline in the rate of profit led many businesses to inflate prices, decrease wages, cut benefits such as health insurance and retirement, increase worker output and file for bankruptcy. In response to the recession, managers of large US corporations generally employed a predictable set of strategies. These included cutting production costs and increasing operating efficiency by employing fewer laborers (or part-time as opposed to full-time laborers) to complete the same quantity and quality of work, and decreasing investment and thus capital expenditure (Ramakrishnan & Ragothaman, 2014). These strategies caused greater unemployment, inflation, lower living standards, increased insecurity and employee stress. It also transferred the corporate-level burden of decreased profits to the individual in the form of lower wages.

While these strategies worked to increase profits, businesses did not then respond by making new investments or increasing employment. As such, financial capitalists were forced to seek out borrowers other than corporations: individuals. Between 1998 and 2006, the US experienced a major increase in bank lending to households; the total value of home mortgages tripled and the ratio of household debt to disposable income increased from 60% in 1970 to 140% in 2007. As the number of credit-worthy borrowers that qualified for prime mortgages diminished, banks began issuing subprime mortgages to the un- and under-employed.

According to the Financial Crisis Inquiry Commission (FCIC), the primary catalyst of the 2008 recession was the collapse of the housing bubble built on risky mortgages. Prior to 2007, foreclosure rates in the US historically averaged less than 1%. In 2009 it had climbed to 2.2% and by 2010, 1 in every 11 residential mortgage loans had incurred at least one past-due payment. Mortgage delinquency, as defined by the FCIC, occurs when mortgage payments are late 90 days or more, or a home is undergoing the foreclosure process (FCIC, 2011).

5.2 *Disproportionality: Social Determinants of Health*

Unemployment and mortgage strain impact the financial status of individual families, as well as the built environment. The effects of foreclosures on neighborhood environments include decline in property value, degradation of the environment, turnover of housing ownership, changes to safety conditions and loss of social support (Roux, 2014): determinants integral to health status. The theory of the social determinants of health posits that systems-level resources and structures, including economic, social and political status, influence an individual's health (Baker et al., 2005). Mortgage delinquency links directly to one's socioeconomic status and thus is an important indicator of a vulnerable population. Financial strain encapsulated by the 2008 recession disproportionately affected individuals that entered into subprime mortgage contracts- those of low socioeconomic status and minority populations. This concentrated foreclosure actions in particular neighborhoods (Houle, 2014). Such inequality in the

distribution of poor social conditions and the predatory lending practices of financial capitalists contributes to health disparities (Baker et al., 2005).

According to a 2006 report released just prior to the recession, women had been disproportionately targeted to receive subprime mortgages. Women were more likely to receive subprime and higher-cost mortgages, regardless of income. Such disparities are consistent across all types of mortgages, whether for home purchase, refinancing or home improvement loans. When coupled with race, African American and Latino women entered into the highest rates of subprime lending contracts. This trend occurs despite evidence of similar credit profiles between men and women, and, in fact, women holding subprime mortgage contracts averaged slightly higher credit scores than men (Fishbein & Woodall, 2006). Further research showed predatory lending practices targeted racial minorities, both by individual race and/or neighborhood racial composition (Wyly et al., 2006). Since urban African-American communities were particularly targeted to enter into risky subprime lending, they were therefore disproportionately affected by mortgage strain (Rugh & Massey, 2010). These practices multiply the risks for poorer health felt by such populations, including those due to racial, educational and economic disparities: previous literature has associated preexisting social disadvantages with housing instability and health (Burgard et al., 2012).

5.3 *Strategies to Make Ends Meet*

Individuals use various strategies to manage income, budget discretionary spending, and save for potential catastrophes or future expenses. Individual wealth is accrued primarily through three processes: earned income, the transfer of capital from one generation to the next, and subsidies or support provided by government policies and aid programs. Earned wages are most often used as disposable income, necessary for daily essential costs such as utilities, housing, food, clothing and entertainment. Intergenerational transfers vary, both by relationship and magnitude (Semyonov & Lewin-Epstein, 2013). These may include small and repeated forms of financial support such as covering the cost of utilities; non-monetary services such as childcare, cooking or transportation; or large, one-time gifts of inheritance. This paper defines

intergenerational transfers broadly, including both friends and family members as potential beneficiaries and a wide array of support services.

Finally, the United States' federal and state governments have various policies instituting and managing social programs to provide aid and assistance to needy families. Government welfare programs supplement low incomes and help to offset economic hardship and poor market performance. Temporary Assistance for Needy Families (TANF) is a federal program that provides state governments with grant monies to support families return to self-sufficiency (Office of Family Assistance, 2015). State welfare programs provide various benefits including healthcare, food stamps, child care assistance, unemployment support and housing assistance (US Welfare System, 2015). Social Security Disability Insurance and Supplemental Security Income provide benefits for disabled individuals or those in financial need (Social Security Administration, 2015).

5.4 *Housing Instability and Health*

Previous research has linked various types of housing instability to poorer health. While most studies have focused on particularly vulnerable populations and severe forms of instability such as homelessness, a growing literature has begun to consider less unstable housing status, such as foreclosure and mortgage strain (Burgard et al., 2012). For example, individuals threatened by foreclosure face poorer physical and mental health outcomes, and previous literature has associated financial strain, job loss, or debt with poorer health status and an increase in depressive symptoms (Cannuscio et al., 2012; Libman et al., 2012; McLaughlin et al., 2012). Furthermore, place of residence impacts health through both the physical environment, as from air pollution or unclean drinking water, and the built environment via the relative availability of health care facilities and community municipal infrastructure (Ompad et al., 2007).

Research on the association between health and *strategies* used to mitigate housing costs, such as temporarily moving into residences of friends or families, also known as "doubling up," have found mixed results. Some reported protective benefits of avoiding isolation, whereas others have shown poorer mental health due to crowding (Burgard et al., 2012). Previous studies have also shown an increase in anxiety and

stress, as well as negative coping behaviors when individuals are faced with foreclosure (Nettleton & Burrows, 1998). Fewer studies have reported on the effect of mortgage strain on health before the foreclosure process was entered into. As evidenced in the literature surrounding foreclosure, and financial strain more broadly, mortgage delinquency negatively impacts physical and mental health. To understand this relationship further, this paper presents a qualitative analysis of the effects of strategies that individuals use to manage or mitigate mortgage strain.

6. METHODS

6.1 *Setting*

Data in the form of semi-structured interviews was collected by a team of researchers (Danya E. Keene and Amy Castro Baker) in a neighborhood situated in the northeastern United States. The neighborhood, Locust Park (a pseudonym), contains a fairly homogenous population: 97% of residents are African-American; roughly 80% are homeowners; and less than 10% completed a bachelor's degree. Residents are generally working-class; the poverty rate is low compared to other neighborhoods with a similar racial profile; and the median household income is approximately $40,000 (US Census Bureau, 2010). Additionally, many residents have remained in Locust Park for decades, having purchased homes in the 1960s and 1970s from white residents vacating the urban landscape. In 2007, the rate of foreclosure in Locust Park was 9%, twice the city average, according to HUD data (US Department of Housing and Urban Development, 2008).

6.2 *Sampling and Recruitment*

Individuals who resided within the neighborhood of interest and had experienced mortgage strain were initially contacted through mailed recruitment flyers. Approximately 300 flyers were sent to former clients of a local mortgage counseling agency. 26 individuals responded and 19 were eligible and enrolled. The low response rate, while expected due to mail recruitment methods and the tendency for those under financial strain to avoid opening mail (Libman et al., 2012), was not of concern as the objectives of the original study did not require a representative sample. After initial recruitment, researchers used snowball

sampling to increase recruitment by providing participants already enrolled with additional flyers to distribute in the community. An additional 9 participants were enrolled. The research team obtained Institutional Review Board ethical approval for all procedures.

Inclusion criteria for enrollment were based upon a broad definition of mortgage strain: individuals facing foreclosure and those who had recovered from mortgage strain but were behind on other payments. Of the 28 interviewees in the originally recruited sample at the time of the interviews, 14 were behind on their mortgage payments; 11 had recently recovered from falling behind on their mortgages; 11 had entered into a second mortgage contract; 5 faced imminent foreclosure; 15 had received notices of foreclosure; and 8 mentioned experiences with predatory lending practices. Furthermore, all 28 individuals identified as African-American, 23 were female, 18 were older than 50 years of age, and the oldest participant was 79. 18 had lived in the same home for over 10 years, of which 11 lived in their home for more than 30 years. The sample of the present study was further limited to women who had experienced mortgage strain or foreclosure. Based upon the evidence described above regarding the targeting of women and African American individuals by lenders for predatory subprime mortgages, the sample was restricted to 13 women to explore their specific experiences with mortgage strain and recovery strategies.

Type of employment and level of education of participants was consistent with general Locust Park population characteristics. 9 of the interviewees were employed at the time of the interviews, while 13 were receiving Social Security benefits for age or disability. The majority of the sample had been employed in various blue-collar occupations: nurses; certified nursing assistants; medical technicians; home health aides; cooks; teachers; maintenance personnel; factory workers; house cleaners; and United State Postal Office workers. 3 had bachelor's degrees. In consideration of self-reported physical and mental health, when asked to describe their health status as "very good," "good," "fair," or "poor," 13 interviewees identified themselves as in "fair" or "poor" health, and 13 met the diagnostic criteria for depression according to the abbreviated Physician Health Questionnaire (PHQ2).

6.3 *Data Collection and Analysis*

The original research team completed interviews between March 2012 and June 2013, two to three years after the first full year of recovery in 2010. This is significant, as the effects of the recession and impacts of government and corporate recovery strategies can be explored at the individual level after a 2-3 year time-lapse. Interviews lasted 1 to 4 hours and took place primarily in participants homes, else in local restaurant locations. Keene interviewed 23 individuals and Baker interviewed five. Three interviewees had a secondary, follow-up interview, and all received $50.00 in compensation for their participation.

Interview content elicited by open-ended questions included residential and personal histories, experiences with the home-buying process (such as securing a mortgage and relationships with lenders and realtors) and subsequent home maintenance, spending strategies, social support, and discussions of how and why individuals fell behind on their payments, and the methods by which they were attempting to recover from mortgage strain or foreclosure. Interviewees also discussed physical and mental health behaviors and outcomes, and the importance of homeownership as opposed to renting. The interviews closed with questions on health status and healthcare.

Analysis for the present study occurred after all interviews had been completed and transcribed. Original transcripts were conferred by Keene, and I initially read them for overarching stories and lived experiences with mortgage strain and strategies of recovery. Next I annotated the transcripts with notes and memos, and, as themes began to emerge, an initial coding scheme developed. Finally I revisited and coded all transcripts using Microsoft Word's "comment" function, and a full codebook was generated. This allowed the aggregation and comparison of data across different interviews. The analysis for this study was driven by codes relating to employment, social networks, social services, payments, and spending strategies. It also uses descriptions of physical and mental health. Specific quotes were extracted to anchor the themes that emerged, however full interviews were used to provide a fuller narrative. Keene and Baker also utilized pseudonyms to protect anonymity, which are preserved in the analysis below.

7. FINDINGS

7.1 *Financial Strategies*

7.1a Earned Income & Unemployment

A major contributor to an individual's financial security is earned income through full-time and/or part-time employment. As discussed above, many interviewees worked in service jobs or those categorized as blue collar occupations. The effects of the recession and consequential high unemployment in the US impacted the community of Locust Park. A common theme throughout the interviews was sudden unemployment or employment that provided insufficient income to maintain mortgage payments. Participants often took on extra work to make ends meet. They attempted to stretch their incomes and improve their job opportunities to resume making mortgage payments.

Carla Lyons, a 50-year old former data analyst, provides an illustrative example of the importance of stable employment. Carla lost her job just one year after becoming a homeowner. Having maintained good credit and secure employment for the previous five years, she assumed she would be able to keep up with her mortgage payments. "I was fine because I was working overtime and stuff." However, once she lost her job, she quickly fell behind. While other strategies discussed below allowed her to avoid foreclosure, reemployment was central to reestablishing consistent mortgage payments. She also adjusted her mortgage payment schedule to fit the rate at which she received her income: "I'm a caseworker [and] I get paid bi-weekly and I'm juggling a lot…One month I'll pay the whole thing one time or I'll pay the whole thing in full and then I don't mind some paying, bi-weekly. I half it: Half one pay period and then half the next." Carla's employment status directly influenced her ability to pay, causing her to fall behind and recover. Maintaining employment is integral not only to housing security, but also health security. Employment, either remaining in or gaining it, is associated with improved or higher rated physical health (Curl et al., 2015). Unemployment, debt and economic strain have been associated with worse health and depressive symptoms, causing psychological distress, material deprivation and increasing the practice of and dependence upon negative coping behaviors (O'Campo et al., 2015). Unemployment also increases the risk of unmet healthcare needs, with the lowest-income unemployed suffering from the greatest percentage of unmet need (Huang et al., 2014).

For other participants, seeking *multiple* forms of stable employment, whether formal full-time and part-time positions or informal odd jobs, was an important strategy for housing security. Alice Coles, a 55

year-old woman who had owned her home for over 10 years at the time of the interview, had a 30-year employment history of simultaneously maintaining two to three jobs in the medical field: "I brought home about $2,200.00 a month I cleared from taxes from working those two jobs, and that's seven days a week because I will work a full-time job, and then on the weekend I would be back up at 5:00 in the morning going to my weekend job." While financially beneficial, Alice eventually experienced work-related injury. When debilitating back pain and carpal tunnel, injuries from overwork and job stress, prevented her from continuing to work, she began to fall behind on her mortgage. No longer able to earn an income, her mortgage payments became unsustainable and she defaulted. Job stress, a negative health outcome consistently associated with the nursing profession and characterized by the "harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker" (NIOSH, 1999), can lead to mood and sleep disturbances, upset stomach, headaches, and eventually chronic health conditions (Roberts & Grubb, 2014). The effects of generalized job stress impact other types of employment as well; environmental and occupational hazards, such as psychosocial stressors, have been associated with cardiovascular disease (Belkic et al., 2004) and mental health outcomes (Stansfeld & Candy, 2006).

Finally, pursuing further education had a significant impact for one participant. Bria Jones, 32, lost her job five years after purchasing her home. She subsequently fell behind on her mortgage and chose to go back to school to obtain a higher-level educational degree. This eventually led to her rehiring at her former place of employment, which contributed to her financial recovery: "I went back, got my Masters, and then they hired me back recently. So that's how I was, you know, able to get back on track." Bria's story underscores the relevance of educational status in determining health status. Evidence has shown the association between mortality and level of education (Marmot, 2005) which directly impacts earned income, and, in this instance, the ability to maintain one's home.

7.1b Renegotiating Payments, Refinancing and Loan Consolidation

Whether on the verge of falling behind or already in default on their mortgage payments, many participants sought help by contacting lenders, banks, community housing counselors and legal services to renegotiate the terms of their loans. Interviewees cited loan consolidation, refinancing, and loan modification as strategies to decrease the amount of their monthly payments. Barriers to anticipating and preventing foreclosure included the amount of required financial documentation by lenders; substantial time between first contact and final modification agreement; and overly-exclusive eligibility requirements. Carla, having fallen behind on two to three months' worth of payments due to unemployment, contacted a community housing counselor who advised her to seek a loan modification from her lender. Carla remarked upon the bureaucratic requirements that accompany such a process: "I did that and they wanted blood, sweat and tears. I had so many documents I had to forward them in terms of my financial crisis." The entire process took a full year, during which time she was unable to make mortgage payments, her debt accumulating. Previous research has shown various associations between loan repayment structure and health outcomes. High-interest debt repayment structures and anxiety worsen debt and affect health-seeking behavior, influencing psychological and physical health (Lenton & Mosley, 2008).

Despite attempts to be proactive when mortgage strain loomed, some interviewees reported aid agencies or lenders as unwilling to intervene *before* a foreclosure action was filed. Bria noted, "I called [my lender, but] they're not really helpful until after you go into your actual foreclosure." Lena also acknowledged that such strategies may be inaccessible to those who need to it most: "So I was planning on consolidating it this year and before I knew it I was laid off…nobody can loan you any money when you not working." Her unemployment, and therefore inability to earn an income, prevented her from obtaining financial services directly related to her status as unemployed.

When primary lenders were unwilling to negotiate or modify terms of loans, interviewees looked to other organizations to intervene and advocate on their behalf. Nicole Lewis, age 36, explained her experience with a civil rights organization: "[I] went to this agency called the Urban League…They helped me out a lot…It was like every month I was goin' to court and had to do a letter of hardship, had to do all modifications of my bills and everything." A final challenge was eligibility requirements. Alice sought out

relief from numerous agencies, but to no avail: "Everyplace that I applied to, everybody denied me. I mean, even like the gas company, electric company, wouldn't give me grants. Everybody denied me until I went down and got the legal aid." Lawyers in legal aid consulted with her, advocating as caseworkers to negotiate financial relief.

Many interviewees reported feelings of stress, fatigue and depression. This is consistent with the literature: previous research has documented associations between mental health decline and foreclosure status. Shame, loss and regret accompany financial strain, and impact individuals and families (Houle, 2014). Nicole is a primary example of this. Nicole spoke of severe depressive symptoms, and related them directly to her financial strain: "We went through two loan modifications because he was often only workin' here and there, but when it first happened, I was so depressed, I wanted to hurt myself because I couldn't pay everything." She continued: "'Maybe I should just kill myself and let them collect the insurance so that they could take care of everything.' I even felt like that…I was so ashamed…No one should feel like that to hurt they self to…pay the mortgage." She also refused to seek out mental health services out of shame: "I always feel like – sometimes you feel like you don't wanna tell people what's really goin' on. That's what that was about. I coulda' went, but I was feelin' like I don't want nobody to know my business and stuff like that, which is why I didn't go." Instead of obtaining professional services, she relied on her husband's support and returned to old coping behaviors such as smoking. These strategies align with previous research on coping with financial strain by foregoing healthcare and prescription medications: underusing medications to cut costs has been associated with poorer mental health, symptoms of depression and disability (Martin et al., 2012).

7.1c Spending Prioritization

Once financial strain struck, interviewees were forced to prioritize certain payments over others. A common theme among the participants was foregoing both extraneous and essential utilities to continue making mortgage payments. Carla expressed it succinctly: "Cut the cable. *[Laughter]* Cut the cell phone. I made budgets with the utility companies. I just had to kinda scale back a whole lot in terms of other things

and that's how I was able to just kinda in stages." Alice used a more solemn candor when discussing the importance of home: "The mortgage is going to be paid, and I don't care if they turn off the gas, the electric or anything. I could deal with that."

This emphasis on mortgage maintenance seemed to be mediated by the presence of children. Leigh Jones, a 43-year-old mother of four, struggled to make ends meet as many expenses seemed unavoidable: "So I had a large mortgage. I would say because of finangling expenses with the four kids…to buy the book bags, all the paper, uniforms now and then, the groceries, and just a lot of expenses. Then the car breaks down…All these things came into play as far as trying to manage a mortgage at the same time." Eventually she made concessions to her children's education: "I pulled them out in the public school…they didn't have a challenge like they did in the Christian school." Leigh articulated that while her older children had a strong foundation from their years in private school, her younger children did not acquire the same discipline.

Nicole also prioritized utility payments over the mortgage in order to care for her children: "I didn't know which one to pay. I gotta keep my electric and my gas and my water on for the kids. You know what I'm sayin'? The mortgage payment would be the last one I would pay…Then I still had to feed them." She used other strategies to save money: she switched to discount supermarkets and off-brand food stuffs; she used a hot plate to cook and kerosene heaters for warmth; she stopped purchasing new clothes. Despite these efforts, the gas and electric were eventually cut off. Nathalie also modified her spending habits and behaviors to keep afloat: "I try not to go out of the house that much, 'cause I don't like being at home, but I realize when I go out, I spend too money – take-out food, gas. It's just cheaper to just stay home, so I do try to stay in the house lately." While these solutions allowed the interviewees to address their mortgage strain, it likely negatively impacted their health: previous research has found associations between home warmth and energy efficiency and general health, respiratory health and mental health. Home heating improvements are also associated with increased usable space and privacy and improved social relationships. Furthermore, research shows a reduction in illness-related work and school absences when housing conditions are improved (Thomson et al., 2013).

Another common theme was the use of home remedies or simple behavioral modification strategies to effect better health. Leigh weighed the risks and benefits of nutritious food choices with her budgetary constraints. Often unhealthier foods cost less per calorie: "Most of those foods were high in fat and a lot of calories. Not healthy food, but being a nurse, I knew what foods to choose or what foods to back away from because I wanted us to be healthy on a long-term basis. But sometimes if your budget can only afford so much, you have to make a decision on what kind of foods are you gonna allow to come into your home." Instead she cooked more often and prepared lunch at home to carry to work. She also considered physical activity a high priority: "We all joined the Y. Even though I had another expense, it was cheap for all of us to do it…I would [also] jog around the neighborhood." This allowed both she and her family to maintain good physical activity levels, a behavior essential to good health. Low-intensity walking is a cost-effective exercise that has long been associated with numerous health benefits: improved fitness and endurance, reduced risk of heart attack, weight regulation, improved muscle and bone strength, etc. (Morris & Hardman, 1997). Unfortunately not all interviewees were able to maintain healthy diets. Missy and Alice reported not eating enough. Alice remarked: "I didn't worry about eating. I didn't worry about it. I did soups, you know. A pot of soup, that would last for a minute." Like Nicole, she also experienced depressive symptoms: "[I] got on my job and had a nervous breakdown. I couldn't stop crying. I said this is it. It's time to leave the world. It's time to kill myself and leave the world." Lack of access to food also has implications for health behavior: household food insecurity has been associated with decreased adherence to physical activity guidelines in adults (To et al., 2014).

7.2 *Government Support Programs*

All of the interviewees in the sample used government-funded assistance programs to supplement their incomes. Many looked to welfare for financial support when their income was insufficient to pay their bills. Nathalie experienced the ebb and flow of multiple services providing aid simultaneously for different reasons: "I was collecting $203.00 a month on welfare, on public assistance, as well...I get $698.00 per month social security… disability, which I'm receiving for my six-year-old daughter with asthma." She

continued, "And I still get my welfare. I receive $150.00, too, every two weeks, because they just lowered it 25 percent, due to her SSI payments." Supporting herself and two children, she also received $600.00 per month in food stamps. While meant to ease financial burdens, government pensions and benefits have been associated with increased financial stress (Worthington, 2006). This harkens back to previously cited research associating financial strain with poorer mental and physical health. Furthermore, food stamps, formally known as Supplemental Nutrition Assistance Program (SNAP), a government nutrition-assistance program, has been associated with poorer dietary quality for low-income recipients (Nguyen et al., 2014).

While Nathalie received sufficient funds to support herself and her family, Alice faced innumerable problems with inconsistency across various programs. Initially, she received social security for health-related costs: "the judge recommended me my Social Security because I have stenosis of the back, arthritis and a disk problem." The pain associated with these health issues eventually forced her to stop working: "When I came out on disability, my insurance, my job insurance only last for six months. So then I had to end up getting welfare." This funding went directly to pay her mortgage, however was insufficient to maintain her payments for any length of time. She received food stamps and sold them to pay for utilities. In her interview, Alice remarked upon the unfairness that she saw as inherent in the system. Instead of *preventing* crisis by intervening early on, government eligibility requirements force you to prove your financial emergency: "And this is the only time this society helps you is when you have nothing. Instead of them helping you before you get down, they want to see you down with nothing, and I think it's a shame"

Those ineligible for certain types of public assistance did not maintain health insurance, particularly if it was lost due to unemployment. Bria, for example, as a contracted employee did not receive insurance benefits. She limited her use of health care services and relied on home-based care strategies: "I don't have any [insurance] now…because I'm a contractor. So I go to the health center…OB/GYN, yes. But regular checkups, no." She also reported negative mental health (feeling "stressed and upset and snappy") and physical health effects ("I did lose weight…I wasn't really eating. I wasn't eating right.") when under mortgage strain. On the other hand, Nathalie had basic health insurance benefits as part of her welfare assistance, but even so she prioritized her children's healthcare over her own: "I haven't seen a primary in

lord knows how long, and I've been on welfare, and I have insurance, so I know I might need to before I get off, because I hear people talking it, and they say insurance is high…[A]ll my children's shots and stuff are up to date."

Finally, Carla felt the impact of previously improperly managed aid. Having received unemployment at an earlier time, she had been overpaid and thus owed unemployment compensation. As such, when she needed funds a second time after taking on a mortgage and losing her job, she was forced to wait a three-month period before receiving any assistance: "when you owe them, you have part of your penalty is a 90-day waiting period." Had her previous unemployment aid been appropriately dispensed, she would not have been penalized when a second financial crisis occurred.

7.3 *Inter- and Intra-generational Exchange of Support*

A third method for making ends meet and maintaining or reclaiming a consistent mortgage payment schedule is through monetary and non-monetary support from family and friends. Individuals with stable and relatively self-sufficient social networks could ask for financial aid. Interviewees spoke of various degrees of aid, sometimes a single sum and sometimes a recurring endowment. Lena, for example, suffered a debilitating car accident and her daughter took on the responsibilities of her employment and payment schedule: "I was out for a year and a half, but my daughter kept my job for me and paid the bills while I was unable to work." Both Nicole and Carla borrowed money from family members for a period of time to make mortgage payments, Carla's adult son even overtaking additional bills: "Like my son will pay my cell phone bill, stuff like that, you know, help me with the little small expenses." Alice maintained her utilities for a time from support for a close family friend she had grown up with, fondly referring to her as an aunt: "Thank god for my aunt. She kept giving me like $50.00 here, and that money right there went to the gas, went to the electric, the water." Nathalie also depended on her brother for financial aid: "Antoine helped me out. Like we all had our own money, and even when I was falling behind initially, Antoine would help me. If I didn't have, he gave me, with no problem."

Individuals undergoing stressful financial times may also lean on family and friends to provide services such as childcare, transportation, home repair work and even alternative housing. Many interviewees completed home remodeling projects or repair work with the help of family members. Nicole's husband, a former construction worker that had been unemployed for four years during the height of their financial plight, looked to his co-workers for help when their home needed extensive repairs. She explained: "'Cause he's in demolition and he has a lot of friends that's construction and electrical." Nicole's husband continued: "I do plumbin'. I do drywall…I do everything except electric and my brother-in-law's electrician and he wouldn't even take my money." Friends' willingness to provide substantial and often expensive work at no- or reduced-cost allowed these individuals to maintain the safety of their homes, reducing housing-related risks such as poor indoor air quality, insulation or ventilation.

Leigh experienced similar assistance from her immediate and extended family. "Initially when I bought the home, I would call my dad and my grandfather and they would just fix it while I'm at work." This gave her more spending flexibility and to leave the repair work unsupervised, and allow it to be completed at her (and their) convenience. However when their health began to deteriorate (her grandfather passed away and father became disabled), she was forced to hire contractors that were unreliable, leaving work unfinished. "The other people, they may have started a project, but nine times out of ten, they may not finish the project. So, I've had an electrician, but I didn't need an electrician frequently, but I needed a plumber frequently or I needed a handy person to do light fixtures and make small renovation projects. So I found renovation work was unreliable. So that was difficult." Leigh paid for much of the necessary renovations after refinancing her home. The increase in costs and decrease in quality doubled the *expense* of the remodeling projects: not only was disposable income being spent on costly housing renovations, but home improvement is associated with improved mental health (Curl et al., 2015). As the expensive projects dragged on, these benefits remained out of reach.

Lena looked to other household members, namely her grandsons, to help with the upkeep of their home. They completed smaller tasks, such as daily chores, albeit with reluctance: "They help out, but you have to beat your brains out to get them to…Most of the time you have to beg them. They're lazy." Missy

experienced "doubling up": she resided with various family members when her utilities were shut off, making her home uninhabitable: "I had to stay elsewhere until things got situated…I stayed at my aunt's house…I stayed at my sister's…It was about three months." Intergenerational households have become far more prevalent in the developed world, particularly after the recession (Aranda, 2015). Other interviewees relied on community support systems, both for tangible aid and intangible assistance. Nicole depended on her local church for additional supplies of food: "Certain days the church would give out food and I was even doin' that." She also looked to her mother for food supplies. "[My mother was on] Social Security and plus she has food stamps and she would buy me food… [or] she would just give me food out the freezer." These strategies would allow the participants to spend their disposable income on other, potentially more essential items, and eased the budgetary constraints that made mortgage payments unmanageable.

8. DISCUSSION

The participants in this study employed a distinct set of strategies to cope with mortgage strain. Additional employment, loan modifications, spending reprioritization, government support, and social support were all methods by which the interviewees adjusted and supplemented their available income. Each strategy was associated with an increased risk to various negative health outcomes as evidenced in previous literature. The primary health problems experienced by the interviewees were mental health symptoms such as stress, fatigue and depressive symptoms; an increased risk of cardiovascular and respiratory diseases; and decreased use of healthcare services.

Government policies already in place tended to be insufficient to meet the financial needs of the participants. Ineffective management and inconsistent policies across programs disrupted participants' aid and ability to pay. This exacerbated as opposed to alleviated their financial strain. Forced to forego food and medical care, the interviewees also increased their risk of poor diet, underuse of medications, and decreased access to providers. While medical insurance stability issues should be eased by the provisions of the PPACA, other social programs' assistance remain unsatisfactory. Preventive as opposed to reactive

policies, and thus earlier intervention, would mitigate the need for many of these strategies and protect against negative health outcomes.

Furthermore, new financial recovery strategies that have health effects in mind would also be beneficial to those who must navigate mortgage strain. In a study which monitored the effect of repayment flexibility on financial stress in individuals with low socioeconomic status showed that higher flexibility reduced mental stress, and access to credit as opposed to simple reduction in debt was an important contributor to reduce overall debt (Field et al., 2012; Turunen & Hiilamo, 2014). More research into coping with sudden financial strain, particularly to alleviate mental health-associated outcomes, should be conducted. Support and information regarding mental health services should be provided at financial counseling resource centers. Additionally, while this analysis did not examine the actions of debt collectors, many interviewees reported continued harassment both at home and their workplace. These practices of constant and aggressive phone calls and notices reportedly contributed to anxiety and stress levels in the participants. A review of such tactics is in order.

While this analysis targets the African-American woman's experience with mortgage strain and foreclosure, the interviews offered a peek into the lives of their children as well. Further exploration of the impact of such strategies on childhood health would elucidate long-term and multi-generational consequences of mortgage strain. Finally, since race and gender contribute to the vulnerability of a certain population, research into the strategies used by other vulnerable populations would offer a more comprehensive understanding of mortgage strain, health effects and the social determinants of health.

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