



The intersection of welfare stigma, state contexts and health among mothers receiving public assistance benefits

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ABSTRACT

The stigmatizing nature of the US welfare system is of particular importance not only because it has shown to deter eligible applicants from participating in public assistance programs despite facing economic hardship, but also because stigma is an important fundamental cause of health inequities. Although scholars agree stigma is shaped by individual and contextual dimensions, the role of context is often overlooked. Given the heterogeneous nature of US state welfare environments, it may be critical to consider the ways in which state policy, social and economic contexts condition the relationship between welfare stigma and health. Using a multilevel lens, this study first examined the impact of experienced and perceived welfare stigma on self-reported health among female public assistance recipients with children. Second, we assessed the moderating effect of uneven state TANF policies, income inequality, and negative public welfare attitudes in shaping these associations. Using data from the Fragile Families and Child Wellbeing Study merged with state-level economic and social measures, we employed a series of multilevel logit models with random effects. Findings show experiences and perceptions of welfare stigma are significantly linked to poor health regardless of state contexts, and outcomes vary markedly by race, ethnicity and education. States with strong anti-welfare attitudes amplified the relationship between experienced welfare stigma and poor health for Black and Hispanic mothers, and state economic contexts modified the relationship between experienced welfare stigma and poor health for mothers with less than a high school education. TANF generosity had no moderating effect on health suggesting state policy environments have limited ability to protect welfare recipients against the stigmatizing effects of the US welfare system. Results have implications for explaining stigma related disparities in health within the context of U.S. welfare environments and informing policies that may be key levers for reducing health inequities.

1. Background

Growing consensus among scholars and government stakeholders suggest social and economic policies have the potential to directly or indirectly influence health through the distribution of health promoting resources and improvement of conditions in which people live (e.g. Marmot et al., 2008; Osypuk et al., 2014). This paradigm is based on the premise that broader political, social and economic forces can improve population health and reduce health inequities. While there is some evidence to suggest social programs more universally administered and tied to work such as unemployment insurance and the Earned Income Tax Credit (EITC) are associated with improvements in health outcomes (e.g., Cylus et al., 2015; Hoynes et al., 2015), the health benefits of means-tested programs that target low income groups such as the Supplemental Nutrition Assistance Program (SNAP) and Temporary Assistance for Needy Families (TANF) remain less convincing (e.g., Coiro, 2001; Heflin & Ziliak, 2008; Wu et al., 2018).

Variation in health benefits might be, at least partially, explained by long-standing perceptions and stigmatization that plague particular programs and groups. For instance, participants of programs more

universal in nature are often characterized as ‘deserving’ (Mettler, 2011) whereas low income recipients participating in means-tested programs are commonly perceived as ‘undeserving’ (Horan & Austin, 1974). Programs such as TANF are considered welfare and have been marginalized since these programs target those who don’t work and are presumed to rely on public benefits to get by. Public perceptions of welfare users have historically been dominated by stereotypes that specifically stigmatize Black single mothers (Rich, 2016; Schram et al., 2003; Townes, 2010).

In addition to negative public perceptions stigmatizing people using means-tested benefits, Herd and Moynihan (2018) propose a framework of administrative burden that contends individuals interacting with the state are also subject to psychological costs that can exacerbate a sense of stigma and reinforce inequality. In fact, implementation processes of means-tested programs are shown to impose higher levels of psychological burdens among participants versus more universal programs (Herd & Moynihan, 2018).

Stigma is defined as the characteristics, conditions, identities, statuses or distinctions that are discredited or subject to devaluation (Goffman, 1963; Pescosolido & Martin, 2015). The concept of welfare

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stigma was put forth to capture the discredited attributes associated with participation in the U.S. welfare system, namely the application for and receipt of public assistance benefits (Moffitt, 1983; Stuber & Schlesinger, 2006). The stigmatizing nature of the U.S. welfare system is of particular importance not only because it has shown to deter eligible applicants from participating in public assistance programs despite facing economic hardship (Moffitt, 1987), but also because welfare stigma is linked to several adverse mental health outcomes including depression (Pak, 2020), impaired feelings of self-worth (Pettersen & Friel, 2001), diminished well-being (Crocker et al., 1998), low self-esteem, anxiety (Dooley & Prause, 2002; Rodriguez et al., 2001), and suicidality (Bassuk et al., 1997). Furthermore, stigma is an important fundamental cause of health inequities (Hatzenbuehler et al., 2013; Phelan et al., 2010; Link & Phelan, 1995).

Fundamental cause theory (FCT) asserts social conditions including stigma fundamentally cause health inequities that persist over time, despite changes in risk factors and health interventions (Phelan et al., 2010; Link & Phelan, 1995). Similar to other fundamental causes such as socioeconomic status, stigma meets FCT criteria because it's shown to shape health through multiple risk factors and mechanisms, involves access to resources used to protect health, and is linked to health inequities across time and place (Hatzenbuehler et al., 2013; Phelan et al., 2010; Link & Phelan, 1995). Importantly, stigma is a multilevel construct that operates in many forms at individual- and structural-levels (Link & Phelan, 2001). At an individual level, stigma compromises health by eroding access to resources (like money, power, social support, and prestige) that shape one's ability to engage in health enhancing behaviors, disrupts psychological and behavioral processes that influence health behaviors, and increases exposure to stress which is associated with numerous health harming physiological responses (for a review, see Hatzenbuehler et al., 2013). Stigma is shown to impact health through structural mechanisms as well which include social conditions, cultural norms, and policies that potentially restrict opportunities of certain individuals embedded within these contexts (Hatzenbuehler et al., 2013; Phelan et al., 2010; Link & Phelan, 1995). Although studies have shown individual-level and structural forms of stigma operate independently to hinder health (Link & Phelan, 2001), there is also evidence to suggest that individual stigma processes occur within structural stigma contexts that shape conditions that increase individual's exposure to health harming circumstances (Mendoza-Denton et al., 2002) as well as interact with individual stigma processes to exacerbate adverse health and wellbeing outcomes (Pachankis et al., 2014). For instance, Mendoza-Denton et al. (2002) found Black college students who experienced forms of stigma and attended predominantly White universities were more likely to exhibit poor education outcomes. Additionally, in a study by Pachankis et al. (2014), stigma based on sexual identity interacted with structural conditions (i.e. policies and state-level attitudes) to predict tobacco and alcohol use for LGBT individuals.

Few studies have examined whether structural conditions shape the health of individuals engaged with welfare programs or whether structural conditions and individual forms of welfare stigma interact to harm health. For instance, there is a limited understanding of whether and how individual-level stigma processes interact with structural factors such as policy environments and economic conditions to influence the health of stigmatized groups despite acknowledgment that structural and individual forces shape social identities that are devalued and stigmatized within particular contexts (Crocker et al., 1998; Tilly, 1984; Coleman, 1986). Additionally, while there is a plethora of research that explores the link between individual welfare stigma processes and mental health, less is known about the relationship between individual welfare stigma and self-rated health, a proven indicator of morbidity and predictor of mortality (DeSalvo et al., 2006). This study fills these gaps by first examining the association between two dimensions of individual welfare stigma (experienced and perceived) and self-rated health among mothers receiving public assistance. Second, we

examined whether these associations are potentiated by contextual conditions described in the following section. Finally, we explored whether these relationships vary by groups historically subjected to negative stereotypes of welfare use by analyzing how the patterns between individual welfare stigma and self-rated health differ by race and ethnicity as well as education level.

2. Conceptual framework

Emerging research suggests U.S. state policy contexts play an important role in shaping the social conditions that affect population health (e.g., Grusky et al., 2015; Montez et al., 2017; Montez et al., 2019). Scholars attribute this relationship to the decentralization of federal policy (i.e., devolution) that has led to ongoing variation in state policy environments and economic opportunity structures that enable citizens to access and wield resources that promote health (Montez, 2017). Despite broad agreement that context matters, few studies have examined its role in shaping the relationship between stigma and health (Hatzenbuehler, 2016), specifically as it relates to the U.S. welfare system. This study extends the literature on stigma and health by examining whether U.S. state policy, economic and social contexts play an important role in the production of stigma-related disparities in health.

First, we considered overarching state welfare policies. In the context of this study, Temporary Assistance for Needy Families (TANF) provides a salient example of a heterogeneous policy structure that differentially affects low income groups across the U.S. Established in 1996, TANF emerged from President Bill Clinton's commitment to end welfare by assisting needy families in achieving self-sufficiency (U.S. Department of Health and Human Services, 2017). Through block grants, states were charged with reducing welfare caseloads by developing a transitional, time-limited system that discourages out of wedlock pregnancies and sets minimum work requirements and expectations (Falk, 2012). States have considerable discretion in designing and implementing TANF programs by setting their own eligibility standards and determining cash support available to families, as well as the conditions under which they can receive benefits. As such, state TANF policies vary widely in their generosity (e.g., monthly payments, time limits, and work requirements). This is particularly germane for low income individuals whose ability to garner resources are subject to the generosity of their state's TANF eligibility, benefit and enrollment structures. Given TANF's stricter eligibility requirements, individuals who qualify for TANF almost always qualify for other welfare benefits like SNAP (Scruggs & Hayes, 2017). As such, state TANF policies represent one important measure of states' availability of welfare benefits and social safety net generosity.

Second, using a measure of state income inequality, we examined the influence of state economic contexts on the association of welfare stigma and health. Scholars have long proposed that material inequality across societies adversely impacts health through psychosocial and physiological mechanisms that engender individuals to compare their resources with others (Kawachi et al., 1999; Wilkinson & Pickett, 2010). A large body of evidence shows greater income inequality is associated with numerous health consequences (e.g. Shi et al., 1999; Wilkinson, 1996) that disproportionately impact low income groups (Kennedy et al., 1998; Lochner et al., 2001). One study that examined engagement in health care among low-income women living with HIV found the association between stigma and health occurred within the context of high income inequality (Walcott et al., 2016).

Consequently, economic inequality may be responsible for the erosion of social cohesion that has the potential to foster a climate less supportive of policies related to social welfare, which in turn can compromise health (Kawachi & Berkman, 2000). Public perceptions of welfare participation are then reinforced through the production of attitudes and norms by the broader social welfare state. Thus, the final context considered in this study is state public welfare attitudes. Studies show structural conditions like public attitudes shape health through

individual-level dimensions or by interacting with individual-level stigma processes to potentiate health effects (Hatzenbuehler, 2016; Mendoza-Denton et al., 2002; Pachankis et al., 2014).

3. Aims

Using a multilevel lens, this study examined the association between two dimensions of welfare stigma and self-reported health among female public assistance participants with children and considered the moderating role of uneven state TANF policies, income inequality, and negative public welfare attitudes. As such, the aims of this paper addressed the following questions: (1) Are experiences and/or perceptions of welfare stigma associated with poor self-rated health for mothers receiving public assistance benefits? (2) Do state policy, economic and social contexts including state TANF generosity, income inequality and public welfare attitudes moderate these relationships? (3) Do patterns of health vary for groups who historically have been stigmatized for engaging with the U.S. welfare system?

Drawing on frameworks of administrative burden (Herd & Moynihan, 2018) and fundamental cause theory (Link & Phelan, 1995; Phelan et al., 2010), we hypothesized experiences and perceptions of welfare stigma were associated with poor self-rated health among mothers receiving public assistance benefits. We anticipated these associations were moderated by state contexts in which welfare recipients were embedded. Additionally, we predicted differences in health would vary by mother's socioeconomic status (education) and race and ethnicity. To the best of our knowledge, this study is the first to examine the intersection of welfare stigma dimensions, state contexts and self-reported health among mothers with young children. Moreover, this study fills a critical gap by examining the oft overlooked contextual conditions that research suggests may influence the relationship between stigma and health.

4. Methods

4.1. Data

This study used public and restricted data from the Fragile Families and Child Wellbeing Study (FFCWS) at baseline (1999–2000) and wave 4 (2004–2006). FFCWS is a national, ongoing longitudinal survey that began collecting data on a cohort of roughly 4700 families living in 20 large U.S. cities within 15 states between 1998 and 2000 (Fragile Families, 2005). FFCWS oversampled unmarried parents that represent a more socioeconomically disadvantaged group (Reichman et al., 2001), providing an opportunity to access an important subgroup (low income mothers with children) for the purposes of this study. Additionally, FFCWS offers a rich set of covariates measured over time that past research suggests are associated with the health and well-being of mothers with young children. Details of the FFCWS design and sampling framework are described elsewhere (Reichman et al., 2001). State economic and social measures were drawn from aggregated data compiled by the Institute for Public Policy and Social Research (IPPSR) Correlates of State Policy Project (Jordan & Grossmann, 2020) and merged with the FFCWS dataset.

4.2. Analytic sample

The analytic sample included mothers who reported receipt of any public assistance benefit in the form of TANF, Medicaid, SSI or SNAP at wave 4 or “in the previous 12 months” as asked in the core mother survey. The final sample consisted of 2064 mothers living within 15 states.

4.3. Self-reported health

The outcome variable used in this study is self-reported health,

which was measured at wave 4 of the FFCWS core mother survey. Respondents were asked: In general, how is your health? Response options were very good, good, fair, bad and very bad. We dichotomized health as good (very good, good, fair) or poor (bad, very bad). Self-rated health is a validated measure of objective health, consistently associated with numerous health conditions including mortality and morbidity (DeSalvo et al., 2006).

4.4. Welfare stigma

Welfare stigma was measured as *both* experienced and perceived. *Experienced welfare stigma*, also referred to as received stigma, represents stigmatized individuals' experience and assesses whether respondents have personally experienced prejudice and/or discrimination (Pescosolido & Martin, 2015). This was assessed using 2 questions from the FFCWS core mother survey that have been previously used to assess program attitudes and perceptions (Bergmans et al., 2018). Respondents were asked: (1) whether the application process to apply for welfare was humiliating, and (2) whether the rules of the welfare program took away personal freedom. For each statement, respondents were asked to strongly disagree, disagree, agree or strongly agree. Responses were summed into an index score with a calculated mean score of 4.90. The mean served as a cutoff point where respondents whose scores fell above the mean were dichotomized as having experienced higher levels of welfare stigma, and respondents with scores below the mean were categorized as having experienced lower levels of welfare stigma.

Perceived welfare stigma refers to individuals' agreements with statements that prejudice and discrimination exist towards a labeled group (Pescosolido & Martin, 2015). Here, perceived welfare stigma was assessed using 3 questions from FFCWS core mother survey that asked respondents whether (1) welfare encourages young women to have babies before marriage, (2) welfare makes people work less than they would if there wasn't welfare, and (3) welfare discourages young women who get pregnant from marrying the father of the child. For each statement, respondents were asked to strongly disagree, disagree, agree or strongly agree. Responses were summed into an index score and we calculated a mean score of 6.85 which served as a cutoff point where individuals whose scores fell above the mean were dichotomized as having perceptions of higher welfare stigma, and respondents with scores below the mean were categorized as having lower perceptions of welfare stigma. Analyses were conducted to assess correlations, and additional experienced and perceived stigma measures were considered in sensitivity analyses (see Appendix, Tables A.3-A.5 and Tables A.1-A.2, respectively).

4.5. Policy context: state TANF generosity

TANF generosity was assigned to states based on the methods employed in the FFCWS study design (Reichman et al., 2001). By calculating (1) the dollar value of the monthly welfare payment for a family of four, and (2) the dollar value of the monthly payment divided by the median monthly rent in the city, Reichman et al. (2001) sorted cities into high, moderate and low welfare benefit terciles at baseline. We used these city-level generosity scores and ascribed them to the state in which the given city resides, categorizing states as having highly generous TANF benefits, moderately generous TANF benefits, and low TANF benefit generosity. Two states include more than one sample city (Pennsylvania and Virginia). In these instances, we used the Reichman et al. (2001) city-level generosity classification of the city with the greatest sample size. For instance, Pennsylvania was represented by two sample cities, Philadelphia and Pittsburgh, that were sorted into moderate and high benefit terciles respectively. In this case, we categorized Pennsylvania as a moderate TANF generosity state based on Philadelphia's significantly larger sample size (325+ mothers as compared to Pittsburgh's sample of <100). Similarly, the city of Norfolk, Virginia was sorted into the moderate tercile and Richmond, Virginia was sorted into

the low tercile. We categorized the state of Virginia as having low generosity based on the larger sample size in Richmond (n = 327). In supplementary analyses, alternative specifications of state TANF generosity were considered (see [Appendix Table A.6](#) and [Table A.7](#)).

4.6. Economic context: state income inequality

State Gini coefficients are commonly used to measure state-level income inequality where larger coefficients indicate greater income inequality and lower coefficients represent a tighter income distribution ([Atkinson et al., 1995](#); [Subramanian & Kawachi, 2004](#)). Using 2003 ACS data from the Correlates of State Policy Project ([Jordan & Grossmann, 2020](#)), we calculated the mean Gini coefficient among all of the 50 U.S. states to serve as a cutoff point where states with a coefficient above the calculated mean were designated as having high income inequality and states below the mean were designated as having low income inequality. This provided the clearest illustration and interpretation of the cross-level interaction on an individual level outcome, in line with studies employing similar measures ([Vincens et al., 2018](#)).

4.7. Social context: state welfare attitudes

We assessed state welfare attitudes using 2003 General Social Survey data gathered by the Correlates of State Policy Project that measured state public opinions on welfare spending ([Kim & Urpelainen, 2017](#)). Here, we calculated the mean estimated proportion of citizens among all 50 U.S. states who believed their state spent “too much” on welfare to assess negative public opinion regarding welfare programs and recipients. The calculated mean served as a cutoff point where states with a coefficient below the mean were categorized as having lower levels of anti-welfare attitudes, and states with coefficients above the mean were categorized as having higher levels of anti-welfare attitudes.

4.8. Covariates

To understand how race and education interacted with state contexts and welfare stigma to shape health, we stratified analyses with the categorical variable for mother’s race and ethnicity (Non-Hispanic White, Non-Hispanic Black, Hispanic, Other) as well as the baseline variable for mother’s education (less than high school, high school education or greater). In addition to these variables, we included other sociodemographic measures that research finds are commonly associated with welfare participation and the health of mothers ([Teitler et al., 2004](#)). These covariates included nativity status at baseline (foreign born or not) as well as wave 4 measurements of mother’s age in years (less than 25, 26–35, 36+), relationship status (married, cohabitating, single), and number of children (1 child, 2–3 children, 4+ children). Smoking and depression are two factors shown to bias self-reports of health ([Pettit et al., 2001](#); [Strine et al., 2005](#)). To mitigate this bias, we also controlled for smoking (whether respondents smoked cigarettes in the past month or not) and diagnosis of probable major depression based on the Composite International Diagnostic Interview Short Form (CIDI-SF) ([Kessler et al., 1998](#)). Smoking and depression were excluded in sensitivity analyses (see [Appendix Table A.8](#) and [A.9](#)).

4.9. Analytic strategy

We employed a series of multilevel logit models to (1) estimate the association between experiences and perceptions of welfare stigma and health, (2) test whether state contexts moderate these associations, and (3) examine whether associations vary when stratified by education and race/ethnicity. Utilizing a multilevel approach allowed us to estimate the association between level 2 variables (state TANF generosity, state income inequality and state welfare attitudes) and a level 1 outcome (individual self-rated health) by accounting for the hierarchical nature of the data and correlation due to clustering. All models included a

random intercept to account for unobserved differences in self-rated health among individuals between states, and fixed effects for explanatory variables.

To begin, descriptive statistics were computed to examine characteristics and risk factors of the analytic sample ([Table 1](#), column 1) as well as the proportion of mothers from the total sample with poor self-rated health ([Table 1](#), column 2). Additionally, we assessed the proportion of mothers receiving welfare who reported poor health, higher experiences of welfare stigma, and higher perceptions of welfare stigma separately, and for each state ([Appendix Table A.10](#)).

Next, we conducted multivariate analyses and estimated a series of multilevel logit models with a random intercept adjusting for individual-level covariates using Bayesian Information Criterion (BIC), a goodness of fit estimate that is widely used in multilevel modeling ([Tables 2](#) and [3](#)). [Table 2](#) shows the results for experienced welfare stigma, and [Table 3](#) shows perceived welfare stigma. To address aim 1, models 2a and 3a estimated the relationship between experienced welfare stigma and health, and perceived welfare stigma and health, respectively. To address aim 2, we included interaction terms to test for moderating associations between the two respective stigma variables and state contexts (models 2b-c and 3b-c). Finally, to address aim 3 we considered racial, ethnic and educational differences in the relationship between state contexts, welfare stigma and health by stratifying all models by mother’s race, ethnicity, and education (in other words, these models can be interpreted as 3-way interactions) (All models, columns 2–6). We excluded the sample of respondents who were within the other race and ethnicity category due to the small sample size (n = 49). All analyses were conducted using Stata 16.1 ([StataCorp, 2019](#)). Results from the logit models are presented as odds ratios (OR) with 95% confidence intervals (CI).

Table 1
Characteristics of analytic sample and proportion of total sample with poor self-rated health (SRH).

| | Total N (%) N = 2064 | Poor SRH (%) N = 377 (18.3) |
|------------------------------------|-------------------------|--------------------------------|
| Baseline | | |
| Education | | |
| < High school | 952 (46.1) | 192 (20.2) |
| High school or greater | 1112 (53.9) | 185 (16.6) |
| Race | | |
| NH White | 243 (11.8) | 55 (22.6) |
| NH Black | 1223 (59.7) | 202 (16.4) |
| Hispanic | 539 (26.1) | 110 (20.4) |
| Other | 49 (2.4) | 10 (20.4) |
| Foreign Born | 201 (9.7) | 43 (21.4) |
| Wave 4 | | |
| TANF recipient | 745 (36.1) | 182 (24.4) |
| Age (mean) | 28.9 | 30.3 |
| < 26 | 701 (34) | 91 (13.0) |
| 26-35 | 1084 (52.5) | 213 (19.6) |
| 35+ | 279 (13.5) | 73 (26.2) |
| Children | | |
| 1 child | 303 (14.7) | 41 (13.5) |
| 2–3 children | 1126 (54.6) | 198 (17.6) |
| 4+ children | 635 (30.8) | 138 (21.7) |
| Relationship Status w/Father | | |
| Married | 285 (13.8) | 48 (16.8) |
| Cohabitating | 287 (13.9) | 54 (18.8) |
| Single | 1495 (72.3) | 275 (18.4) |
| Smoker | 796 (38.6) | 183 (23.0) |
| Depression | 428 (20.7) | 154 (36.0) |
| High Experiences of Welfare Stigma | 1270 (61.5) | 267 (21.0) |
| High Perceptions of Welfare Stigma | 1112 (53.9) | 235 (21.3) |

Note: The poor SRH column represents the proportion of individuals from the total sample with poor self-rated health and the given characteristic and risk factor.

Table 2

Multilevel logit models of experienced stigma and Interactions on poor health fully controlled and stratified by race/ethnicity and education: Presented as odds ratios (OR) and 95% confidence intervals (CI).

| | Total Sample n = 2064 | Less than High School n = 952 | High School or More n = 1112 | Non-Hispanic White n = 243 | Non-Hispanic Black n = 1233 | Hispanic n = 539 |
|--|---------------------------|----------------------------------|---------------------------------|-------------------------------|--------------------------------|--------------------------|
| | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) |
| Model 2a | | | | | | |
| Experienced Stigma | 1.565*** (1.208–2.028) | 1.601** (1.107–2.315) | 1.575** (1.083–2.289) | 1.799 (0.894–3.622) | 1.951*** (1.342–2.836) | 0.938 (0.586–1.504) |
| Model 2b | | | | | | |
| Experienced Stigma | 1.562** (1.018–2.396) | 2.059** (1.142–3.713) | 1.115 (0.589–2.109) | 1.810 (0.494–6.640) | 1.643 (0.902–2.996) | 1.168 (0.568–2.403) |
| Moderate TANF Generosity | 0.627 (0.346–1.137) | 0.760 (0.333–1.731) | 0.462 (0.196–1.087) | 0.928 (0.168–5.145) | 0.429** (0.198–0.928) | 1.422 (0.529–3.821) |
| Low TANF Generosity | 1.044 (0.612–1.779) | 1.129 (0.536–2.377) | 0.895 (0.425–1.884) | 2.009 (0.547–7.376) | 0.766 (0.352–1.667) | 1.194 (0.542–2.634) |
| Experienced Stigma * Moderate TANF Generosity | 1.539 (0.795–2.977) | 0.908 (0.356–2.316) | 2.779** (1.056–7.313) | 2.393 (0.304–18.852) | 1.814 (0.751–4.382) | 1.09 (0.285–4.171) |
| Experienced Stigma * Low TANF Generosity | 0.68 (0.373–1.242) | 0.469 (0.200–1.099) | 1.109 (0.464–2.649) | 0.681 (0.138–3.349) | 0.718 (0.284–1.812) | 0.58 (0.209–1.605) |
| Model 2c | | | | | | |
| Experienced Stigma | 1.741*** (1.209–2.508) | 2.439*** (1.415–4.202) | 1.303 (0.787–2.159) | 2.287 (0.954–5.481) | 1.587** (1.026–2.456) | 2.534 (0.607–10.577) |
| Income Inequality | 1.433 (0.906–2.267) | 2.207** (1.116–4.366) | 0.902 (0.466–1.747) | 1.744 (0.545–5.580) | 0.744 (0.341–1.622) | 2.68 (0.721–9.966) |
| Experienced Stigma * Income Inequality | 0.787 (0.471–1.316) | 0.433** (0.207–0.905) | 1.469 (0.695–3.107) | 0.481 (0.114–2.033) | 1.958 (0.832–4.610) | 0.324 (0.071–1.470) |
| Model 2d | | | | | | |
| Experienced Stigma | 1.644** (1.085–2.490) | 2.416*** (1.284–4.544) | 1.248 (0.707–2.203) | 2.441 (0.835–7.132) | 1.37 (0.845–2.223) | 8.449 (0.894–79.881) |
| Anti-Welfare Attitudes | 1.052 (0.652–1.697) | 1.681 (0.820–3.447) | 0.671 (0.351–1.282) | 1.25 (0.407–3.846) | 0.552 (0.274–1.112) | 7.233 (0.844–61.976) |
| Experienced Stigma * Anti- Welfare Attitudes | 0.923 (0.544–1.566) | 0.524 (0.240–1.143) | 1.497 (0.708–3.163) | 0.584 (0.146–2.332) | 2.298** (1.061–4.977) | 0.093** (0.009–0.934) |

*** p < 0.01, ** p < 0.05.

Control variables include education, race/ethnicity, nativity status, age, number of children, relationship status, smoking status, depression.

5. Results

Table 1 shows the majority of the analytic sample was Non-Hispanic Black (59.7%) and obtained more than a high school degree (53.9%). At wave 4, the mean age of mothers was 28.9. A higher proportion of the sample had 2 or 3 children (54.6%) and a majority of mothers reported no relationship with their child(ren)’s father (72.3%). Approximately 20% of the sample met depression diagnosis criteria and more than half of the sample reported experiences of high welfare stigma (61.5%) and perceptions of high welfare stigma (53.9%). Cross tabulations for each of the individual-level indicators and poor self-rated health show approximately 18% of the sample reported their health as poor. Notably a higher proportion of the poor self-rated health sample identified as Non-Hispanic White (22.6%) and had less than a high school degree (20.2%). Patterns within the poor self-rated health distribution also indicate that the proportion of mothers who reported poor health substantially increased as age and number of children increased. Additionally, Table 1 shows mothers who were cohabiting (18.8%) or single (18.4%) at wave 4 had higher rates of poor health as compared to married mothers (16.8%). Approximately 36% of mothers who met depression criteria in wave 4 reported poor health, and roughly 21% of the sample who reported experiencing (21%) and perceiving (21.3%) high levels of welfare stigma also reported poor health, respectively.

In Table 2, we present multilevel logit model results from the multivariate analysis for experienced welfare stigma, and Table 3 shows the results from the multivariate analysis for perceived welfare stigma. Models 2a and 3a in Tables 2 and 3 respectively addressed research question 1, whether experiences and/or perceptions of welfare stigma were associated with poor (vs. good) self-rated health after adjusting for education, race/ethnicity, nativity status, age, children, relationship status, smoking and depression. Model 2a shows mothers who reported experiences of high welfare stigma were at higher odds of reporting poor health as compared with mothers experiencing low levels of welfare

stigma. The effect of experienced stigma on poor health stratified by education was similar for mothers with less than a high school education and for mothers with a high school education or more (Model 2a, Table 2). When the sample was stratified by race and ethnicity, Black mothers were found to be at significantly higher odds of experiencing high levels of welfare stigma and poor health. The estimate for White mothers was similar to that of Black mothers, but with a smaller sample size was not statistically significant (Model 2a, Table 2). Similarly, in Table 3, model 3a shows a significant association for mothers who reported higher perceptions of welfare stigma and poor self-rated health as compared with mothers that reported lower perceptions of welfare stigma, all else equal. When stratified by education, mother’s with less than a high school degree who perceived high levels of welfare stigma presented with higher odds of poor health as compared with mothers that reported lower perceptions of welfare stigma. When stratified by race and ethnicity, this association was pronounced and statistically significant for Hispanic mothers.

Models 2b-d addressed research question 2, whether the association between experienced welfare stigma and health varied by state contexts (Table 2). Model 2b considered the moderating effect of state TANF generosity on the association between experienced welfare stigma and poor health by including an interaction term for experienced stigma and state TANF generosity. We found no statistical significance in the full sample or when the sample was stratified by mother’s race/ethnicity. However, when stratified by mother’s education, the interaction between education, high experienced stigma, and moderate TANF generosity was statistically significant indicating that the sample of mothers with a high school education or greater had the highest odds of poor health (Model 2b, Table 2). In model 2c we included an interaction term for experienced stigma and state income inequality and found the likelihood of reporting high experiences of stigma and poor health while living in a state with high income inequality were similar for mothers with less than a high school degree and mothers with a high school

Table 3
Multilevel logit models of perceived stigma and interactions on poor health fully controlled and stratified by race/ethnicity and education: Presented as odds ratios (OR) and 95% confidence intervals (CI).

| | Total Sample n = 2064 OR (95% CI) | Less than High School n = 952 OR (95% CI) | High School or More n = 1112 OR (95% CI) | Non-Hispanic White n = 243 OR (95% CI) | Non-Hispanic Black n = 1233 OR (95% CI) | Hispanic n = 539 OR (95% CI) |
|---|--------------------------------------|--|---|---|--|---------------------------------|
| Model 3a | | | | | | |
| Perceived Stigma | 1.430*** (1.121–1.824) | 1.678*** (1.169–2.409) | 1.254 (0.895–1.757) | 0.993 (0.514–1.917) | 1.381 (0.994–1.920) | 1.920*** (1.187–3.104) |
| Model 3b | | | | | | |
| Perceived Stigma | 1.683*** (1.152–2.459) | 1.295 (0.774–2.166) | 2.371*** (1.334–4.215) | 1.976 (0.574–6.804) | 1.585 (0.961–2.615) | 1.909 (0.926–3.933) |
| Moderate TANF Generosity | 0.910 (0.551–1.504) | 0.481 (0.215–1.080) | 1.545 (0.812–2.940) | 2.503 (0.587–10.678) | 0.711 (0.400–1.264) | 1.364 (0.419–4.442) |
| Low TANF Generosity | 0.939 (0.575–1.533) | 0.451** (0.208–0.979) | 1.764 (0.938–3.319) | 2.912 (0.871–9.732) | 0.663 (0.338–1.301) | 0.948 (0.407–2.208) |
| Perceived Stigma * Moderate TANF Generosity | 0.785 (0.432–1.426) | 1.544 (0.615–3.874) | 0.408** (0.177–0.943) | 0.465 (0.070–3.081) | 0.78 (0.370–1.645) | 1.066 (0.260–4.373) |
| Perceived Stigma * Low TANF Generosity | 0.738 (0.417–1.307) | 1.761 (0.747–4.152) | 0.330*** (0.144–0.757) | 0.333 (0.068–1.621) | 0.774 (0.329–1.818) | 0.96 (0.340–2.708) |
| Model 3c | | | | | | |
| Perceived Stigma | 1.295 (0.918–1.88) | 1.780** (1.048–3.025) | 1.02 (0.635–1.638) | 1.222 (0.520–2.871) | 1.269 (0.838–1.922) | 3.248 (0.813–14.456) |
| Income Inequality | 1.128 (0.752–1.691) | 1.419 (0.723–2.785) | 0.978 (0.580–1.648) | 1.628 (0.572–4.635) | 1.185 (0.684–2.053) | 1.967 (0.533–7.253) |
| Perceived Stigma * Income Inequality | 1.215 (0.748–1.973) | 0.891 (0.431–1.841) | 1.522 (0.776–2.987) | 0.565 (0.138–2.305) | 1.24 (0.629–2.441) | 0.517 (0.112–2.393) |
| Model 3d | | | | | | |
| Perceived Stigma | 1.506** (1.105–2.233) | 1.966** (1.064–3.634) | 1.259 (0.736–2.154) | 1.799 (0.625–5.178) | 1.556 (0.974–2.484) | 1.853 (0.390–8.805) |
| Anti-Welfare Attitudes | 1.066 (0.685–1.658) | 1.323 (0.643–2.720) | 0.906 (0.532–1.542) | 1.548 (0.553–4.331) | 1.235 (0.690–2.209) | 1.166 (0.301–4.509) |
| Perceived Stigma * Anti-Welfare Attitudes | 0.92 (0.558–1.517) | 0.784 (0.366–1.679) | 0.995 (0.497–1.991) | 0.361 (0.090–1.450) | 0.788 (0.408–1.522) | 1.041 (0.202–5.359) |

*** p < 0.01, ** p < 0.05.

Control variables include education, race/ethnicity, nativity status, age, number of children, relationship status, smoking status, depression.

degree or more, however the likelihood of poor health was slightly higher and only statistically significant for mothers with less than a high school degree (Table 2). Finally, in model 2d we included an interaction between high experienced stigma and high state anti-welfare attitudes. Table 2 shows this interaction was statistically significant and highly predictive of poor health for the sample of Black and Hispanic mothers suggesting that in states with high anti-welfare attitudes, Black and Hispanic mothers who reported high levels of experiencing welfare stigma were at increased odds of reporting poor health.

In Table 3, models 3b-d investigated the moderating effect of state contexts on the association between perceived stigma and poor health. Model 3b included the interaction for perceived stigma and TANF generosity. When stratified by education, results show estimates were similar for mothers with a high school education or more, and mothers with less than a high school education. However, the association was only statistically significant for mothers with more than a high school degree such that mothers with a high school degree or more, who reported high perceptions of welfare stigma and who lived in a moderately generous TANF state were at slightly higher odds of poor health. Interaction terms for perceived stigma and state income inequality as well as perceived stigma and state anti-welfare attitudes were insignificant across models (models 3c and 3d, Table 3), reflecting a lack of synergism between perceived stigma and state economic and social contextual factors. For visual representations of predicted probabilities of poor health for each model see appendix, figures A.1-A.6 and corresponding tables A.11-A.16.

6. Discussion

This study used a multilevel lens to examine the intersection between two dimensions of welfare stigma, state contexts, and self-reported health for female public assistance recipients with children. The study adds to the published literature on welfare stigma and health by contributing new insights into the relationship between individual experiences with and perceptions of welfare stigma and self-reported health, as well as the moderating role of state policy, economic and social contexts in implicating these associations. Findings from this study offer new insights and implications for policymakers that aim to reduce health inequities.

First, experiences and perceptions of welfare stigma were significantly linked to poor self-rated health for mothers receiving public assistance benefits regardless of state contexts. When stratified by education, the association between perceived welfare stigma and poor self-rated health was significant among women possessing less than a high school degree. When stratified by race and ethnicity, Black mothers who reported experiencing higher levels of welfare stigma were more likely to report their health as poor (vs good) as compared to their White or Hispanic counterparts. Interestingly, Hispanic mothers who reported higher levels of perceived welfare stigma were more likely to report poor health as compared to their White or Black female counterparts. Research suggests Hispanic culture and values may be at odds with the philosophy of the U.S. welfare system because of its focus on individualism and mandated work, particularly among Latina women with children who prioritize motherhood and the needs of their families (Acevedo, 2005). Thus, Hispanic mothers who report high perceptions of welfare stigma may be subject to harsher judgements of public assistance resulting in health harming consequences. These associations were robust to sociodemographic variables and risk factors and support a large body of evidence that documents associations between different forms of welfare stigma and poor health outcomes (e.g., Bassuk et al., 1997; Crocker et al., 1998).

In the second set of analyses, we interacted both forms of stigma with state context measures and stratified these outcomes by subgroups to obtain a more nuanced understanding of how state-level structural factors and individual-level stigma processes interact to shape health. Findings show state welfare policies (i.e., TANF generosity) do not

moderate the association between dimensions of welfare stigma and health in a meaningful way, and thus have limited ability to buffer recipients from the stigmatizing effects of the U.S. welfare system. Consequently, state economic (e.g., income inequality) and social (e.g. public welfare attitudes) contexts were found to differentially influence the relationship between dimensions of welfare stigma and health for female public assistance participants and interacted with individual-level factors in noteworthy ways. For instance, within states with high economic inequality greater education appears to protect health for recipients that experienced stigma but was unable to buffer the health harming consequences for recipients who perceived high levels of welfare stigma existed. Additionally, state social contexts (e.g., welfare attitudes) were found to moderate the relationship between experienced welfare stigma and health for the sample of Black and Hispanic women. In other words, Black and Hispanic mothers who lived in states with high levels of anti-welfare attitudes, and who reported high levels of experienced welfare stigma were at higher odds of reporting poor health. These findings align with evidence that suggests health is shaped, in part, by social contexts (Hatzenbuehler et al., 2013) and contexts of high income inequality (Walcott et al., 2016). On the other hand, state welfare policies, although endowed with the ability to restrict or enhance opportunities and resources, may be unable to compete with powerful cultural norms and internalized labels (i.e. welfare users are lazy) that plague particular individuals embedded within these contexts.

Importantly, findings from this study underscore the relationship between welfare stigma and poor health vary markedly by race, ethnicity and education as evidenced in our stratified models (i.e. 3 way interactions). This is unsurprising given the pervasive negative stereotypes of women on welfare, particularly portrayals of Black women (e.g., 'welfare queens') (Cassiman, 2007). Moreover, results from this study underscore that ongoing gendered and racialized welfare discourse perpetually reinforce a social climate that is less supportive of welfare policies. It is through these structural and individual mechanisms that stigma imparts exacerbated health consequences for groups historically subjected to welfare stigmatization. Furthermore, this study makes clear structural-level and individual-level factors have synergistic effects on the health of individuals engaged with the U.S. welfare system. These findings have critical implications for explaining stigma related disparities in health within the context of U.S. welfare environments and understanding the intersection of social welfare use, race and socio-economic factors for social justice.

Establishing associations between dimensions of welfare stigma, state contexts and poor health contributes to the evidence base on stigma and health, and supports theoretical frameworks that insist stigma is (1) a psychological cost and administrative burden endured by individuals interacting with government programs (Herd & Moynihan, 2018), and (2) a fundamental cause of health inequities (Hatzenbuehler et al., 2013; Phelan et al., 2010; Link & Phelan, 1995). To ameliorate these consequences, policy makers should consider strategies to reduce negative perceptions associated with participation in public assistance programs and eradicate their stigmatizing effects. Such strategies might include universal basic income supports, which may eliminate the stigmatizing effects associated with means-tested programs (Hoynes & Rothstein, 2019). Ultimately, because individuals and contexts are shown to shape one another, policy makers should focus on individual and structural strategies to be most effective in targeting the mechanisms that shape population health inequities.

Importantly, some studies have shown exposure to stigmatizing messages may have paradoxical consequences by actually increasing negative behaviors as opposed to elucidating behavioral improvements (Major et al., 2014). Although these effects aren't considered here, future research might evaluate how social policies that aim to reduce stigmatizations may potentially perpetuate adverse health consequences. Moreover, future research should continue to embrace theoretical approaches that argue contextual conditions and individual factors matter for understanding stigma related disparities in health.

While this study considered a limited set of factors representative of state contexts, additional state environments and structural conditions that put welfare recipients and related programs at risk of stigmatization should be assessed.

7. Limitations

In addition to its contributions, this study has several limitations. First, this study utilized a large sample of disadvantaged mothers disproportionately using welfare in urban communities within 15 specific states (Reichman et al., 2001). As such, findings from this study may be less generalizable to welfare beneficiaries that live in suburban and rural environments and/or states not included in the sample, all of whom may be subject to different experiences and perceptions of stigma than those represented here. Second, state TANF generosity represents one aspect of a state's social safety net landscape. Although TANF eligibility is often stricter than other welfare programs, we do not account for variation in non-TANF public assistance policies such as SNAP. Third, respondents may be subject to social desirability biases when self-reporting their attitudes towards programs in which they participate, and may underestimate their experiences and perceptions of welfare stigma. Similarly, data on state-level anti-welfare attitudes may be underestimated due to social desirability bias. Although this study does not make causal claims, it's worth noting that the documented association may be bidirectional such that recipients who are in poor health may be more likely to face stigma given pre-existing health conditions or poor health status. Thus, it's possible that respondents reported higher levels of experienced or perceived welfare stigma by virtue of negative stereotypes or discrimination predicated on prior poor health. Finally, measures of welfare stigma were available at wave 4 only. Therefore, we were unable to examine how experiences and perceptions of stigma and self-rated health changed over time. Moreover, the measures of welfare stigma used here were limited to two dimensions of stigma despite empirical and conceptual work that suggests stigma is comprised of complex and multidimensional processes not available in our data (Pescosolido & Martin, 2015). Moreover, correlation matrices indicate the 3 perceived stigma items used in this study had correlations below 0.50 suggesting they don't hang together as strongly as the experienced stigma items (see Appendix Table A4).

8. Conclusion

This study assessed the intersection between welfare stigma, state contexts and self-rated health of female public assistance participants with children. Findings show experiences and perceptions of welfare stigma are robustly associated with poor health regardless of state contexts. Across both dimensions of welfare stigma, we find significant differences in health by race, ethnicity and education. In addition, state economic contexts modified the relationship between experienced welfare stigma and poor health for mothers with less than a high school education, as did state social contexts for Black and Hispanic mothers. In contrast, state TANF generosity had no meaningful effect on the observed associations between experiences and perceptions of stigma and health suggesting generous state TANF policies may have limited ability to protect public assistance recipients against the stigmatizing effects of the U.S. welfare system.

Ethical statement

The University of Washington Human Subjects Division determined that the proposed research activity under IRB ID STUDY00011224 does not involve human subjects, as defined by federal and state regulations. Therefore, review and approval by the University of Washington IRB is not required. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Author statement

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ssmph.2022.101117>.

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