5-18-2024

The Embodiment of Exclusionary Displacement Pressure: Intersections of Housing Insecurity and Mental Health in a Hispanic/latinx Immigrant Neighborhood.

Marisa Westbrook
Portland State University

Citation Details
Westbrook, M. (2024). The embodiment of exclusionary displacement pressure: Intersections of housing insecurity and mental health in a Hispanic/Latinx immigrant neighborhood. Social Science & Medicine, 351, 116996.

Social Science & Medicine 351 (2024) 116996

Contents lists available at ScienceDirect

Social Science & Medicine

journal homepage: www.elsevier.com/locate/socscimed

The embodiment of exclusionary displacement pressure: Intersections of housing insecurity and mental health in a Hispanic/Latinx immigrant neighborhood

Marisa Westbrook, PhD MPH

OHSU-PSU School of Public Health, Portland State University, 1810 SW 5th Avenue, Suite 510, Portland, OR. 97201, USA

ARTICLE INFO

Handling editor: Medical Sociology Office

Keywords:
Embodiment
Exclusionary displacement
Displacement pressure
Ethnography
Immigrant health
United States

ABSTRACT

Gentrification, growing income inequality, urban development, and the affordable housing crisis necessitate understanding the impact of the concern of displacement on health — prior to or even in the absence of a displacement event. In this paper, I use the term "exclusionary displacement pressure" to unify the literature on exclusionary displacement and displacement pressure, highlighting the disproportionate and inequitable impacts of displacement pressure among communities of color. Through following 35 residents over 2.5-years (2019–2022) in one predominantly low-income Hispanic/Latinx immigrant neighborhood in Denver, Colorado, I examine how exclusionary displacement pressure shapes their health and wellbeing over time. Through paying attention to how participants' lived experience is shaped by structural vulnerability (e.g. lack of documentation status, inadequate work, limited access to safety net systems), I identify how exclusionary displacement pressure is constantly internalized and responded to as a unique embodied health experience, wearing on individuals over time and reproducing population health inequities. The framework of embodied health experiences captures the wide range of health-related impacts, from diagnosable health conditions to idioms of distress, using participant's own language of suffering to express how they were *feeling*, *battling*, and *enduring* the pressure. Theorizing on structural vulnerability within specific subpopulations with intersecting identities, such as low-income immigrant Hispanic/Latinx communities, provides a bottom-up refinement to existing theories of embodied health. Understanding the place-health experiences of individuals in changing neighborhoods over time is also critically important to define time points at which context-specific supports and interventions are appropriate.

1. Introduction

Gentrification and displacement are social determinants of health, as they are conditions impacting the built, social, and cultural environments affecting health. Gentrification is the economic transformation of a lower-income central city area through the exploitation of land value, leading to neighborhood and social change that impacts existing residents, including exclusionary displacement based on social class and race/ethnicity (Fullilove, 2016; Lees et al., 2010). Exclusionary displacement occurs when individuals leave housing in central neighborhoods and are unable to move into other housing options in comparable neighborhoods despite their desire to do so (Marcuse, 1985), making displacement a central feature of gentrification (see Baeten et al., 2017; Phillips et al., 2021). Growing income inequality, urban development, and the affordable housing crisis necessitate understanding the impact of exclusionary displacement pressures on health, whether from state-led redevelopment, evictions, or informal processes such as rent increases (Brown-Saracino, 2017; Desmond, 2012; He, 2007; Slater, 2006; Smith, 1979; Zuk et al., 2018).

Due to legacies of discriminatory practices and urban segregation, displacement affects neighborhoods predominantly comprised of non-White populations and low-income renters, making this process racist, classist, and exclusionary (Fallon, 2021; Rucks-Ahidiana, 2021; Slater, 2006). Displacement can appear in many forms – economic displacement, exclusionary displacement, or displacement pressure (Marcuse, 1985). The last of these, displacement pressure, is described as the feeling of concern at being displaced given what is occurring within a neighborhood (Marcuse, 1985). I use the term exclusionary displacement pressure to unify the literature on exclusionary displacement and displacement pressure, highlighting the disproportionate and

E-mail address: marisaw@pdx.edu.

https://doi.org/10.1016/j.socscimed.2024.116996
Received 17 November 2023; Received in revised form 3 May 2024; Accepted 16 May 2024
Available online 18 May 2024

inequitable impacts of displacement pressure among communities of color. Through multilingual longitudinal interviews and fieldwork observing the experience of displacement pressure for residents living in a low-income Hispanic/Latinx immigrant neighborhood, I examine how exclusionary displacement pressure shapes low-income residents' health and wellbeing over time, prior to–or even in the absence of–a displacement event. Contributing language to describe the impact of housing insecurity on health in early-stage gentrifying neighborhoods, I show how participants feel, struggle, and endure exclusionary displacement pressure as an embodied health experience.

Social scientists have long been interested in ensuring the inclusion of low-income urban residents' perspectives on gentrification, displacement, and other forms of "social suffering" (Kleinman et al., 1997; Bourdieu et al., 1999). Existing literature has not fully linked the social conditions of neighborhood change to health, and has not fully integrated temporal aspects of exclusionary displacement pressure. This paper provides an opportunity to focus on longitudinal processes through which structural changes affect everyday life and health, leaning on theories of embodiment and structural vulnerability (Krieger, 2005; Quesada et al., 2011). Through ethnographically tracing experiences of 35 individuals over 2.5 years (2019–2022) in an early-stage gentrifying predominantly Hispanic/Latinx immigrant neighborhood in Denver, Colorado, I describe exclusionary displacement pressure as a lengthy process with embodied health implications. Understanding the place-health lived experiences of individuals in changing neighborhoods over time – based on their structural vulnerability to exclusionary displacement pressure – is critically important to define time points at which context-specific supports and interventions are appropriate, prior to–or even in the absence of–a displacement event.

2. Background

2.1. Relationships between gentrification, displacement, and mental health

Research linking gentrification and health is still in its early stages and is mixed in results, with some studies reporting associations and others none (Mair et al., 2015; R. J. Smith et al., 2018; G. S. Smith et al., 2020; Tran et al., 2020). Physical displacement has been correlated to negative mental health outcomes, especially related to the psychosocial impact of being displaced due to gentrification (Fullilove, 2016; Lim et al., 2017), eviction (Desmond, 2016), natural disaster (Deola and Patel, 2014; Fussell and Lowe, 2014), and housing demolition (Keene and Geronimus, 2011; Manzo et al., 2008). Researchers examining health outcomes of gentrification have most frequently focused on external, disembodied neighborhood measures or clinical categorizations of disease (Schnake-Mahl et al., 2020). Significant biomedical scholarship has explored the physiological measures of stress on the body, bridging clinical research with social scientific research on health through precise physiological mechanisms (Rodriquez et al., 2019). Biomarker research has also connected how the long-term, accumulated embodiment of social and environmental contexts drive health inequities (Geronimus et al., 2006; Prior et al., 2019). Biological approaches to embodiment can provide important insights, but they do not tell us about people's lived experiences. Along with social theoretical approaches, such as Krieger's ecosocial theory of health (2021), these approaches require us to consider biological processes in tandem with social experiences. As a commitment to understanding the full impact of exclusionary displacement pressure, I seek to document how individuals perceive, voice, and describe their own experiences.

Considering the impacts of changing neighborhoods on people with marginalized identities, this study uses ecosocial theory of embodiment as an overarching framework, adding in theories of structural vulnerability to further understand the complexity of what is occurring. Structural vulnerability is the risk of experiencing structural violence on account of location in various social hierarchies (Quesada et al., 2011), and embodiment represents how that risk and experience of structural violence impact health so that our "bodies tell stories about … the conditions of our existence" (Krieger, 2005). Compared to biomedical theories, this approach centering embodiment permits for a fuller accounting of embodied mental health experiences related to exclusionary displacement pressure, and is more akin to literature on residents' lived experiences connected to social, cultural and political displacement occurring in gentrifying neighborhoods (Hyra, 2015; Martin, 2007; Shaw and Hagemans, 2015; Torres, 2020).

Additionally, it is important to capture the duration of neighborhood processes producing health-related experiences, from at-risk of gentrification to advanced stages (Chapple and Zuk, 2016). Most field work has focused on later stages and beneficiaries (e.g., college educated participants and new residents) (Marcuse, 1985; Slater, 2006, 2008). By preselecting gentrifying or gentrified neighborhoods in major cities, scholars may inadvertently *post facto* document the experiences of living through a changing neighborhood, rather than capturing impacts in development for low-income residents (Brown-Saracino, 2017). Yiftachel's reconceptualization of displacement as a condition of displaceability emphasizes that we must refocus our efforts on residents' experiences of susceptibility and vulnerability (2020). Low-income renters are likely to face exclusionary displacement pressure sooner than homeowners (Zuñiga, 2023). Thus, I aim to document the slow, chronological processes of exclusionary displacement pressure for low-income residents through longitudinal interviews.

2.2. Embodiment of exclusionary displacement pressure

Displacement pressure is the concern or fear of being displaced due to neighborhood change (Marcuse, 1985), present whether displacement is truly occurring or not, given that the affordable housing crisis has "trapped" many low-income families in place (Slater, 2009, p. 306). I develop the concept of exclusionary displacement pressure to accomplish two specific goals – one being to highlight displacement pressure's disproportionate and inequitable impacts among communities of color (Danley and Weaver, 2018), and the other being to put emphasis on the emotional, health-relevant experiences occurring prior to or absent physical displacement.

Resident experiences of gentrification make clear that health outcomes must be examined in tandem with exclusionary displacement pressure, given that such pressure has a psychosocial impact (Chen et al., 2023; Gutiérrez, 2022; Zuñiga, 2023). Increasing housing costs due to neighborhood change impact households' ability to achieve health through creating hardship for low-income populations and thereby increasing psychosocial burden (Fullilove, 2016; Schnake-Mahl et al., 2020; Versey et al., 2019). Neighborhood transition is therefore a form of "slow violence" (Kern, 2016) where impending displacement produces health effects through a series of emotion-generating experiences, ranging from fear or dread through anxiety to hope or anticipation (Danley and Weaver, 2018; Lombard, 2013; Manzo et al., 2008). The potential consequences of living in neighborhoods in transition emphasize the importance of considering the embodied impacts of exclusionary displacement pressure on health and well-being (Elliott-Cooper et al., 2020; Shaw and Hagemans, 2015; Versey et al., 2019).

Our lives – and thus, our health – are shaped by history and local context. As a key construct of ecosocial theory, embodiment is the connection between realities of health and wellbeing and unique social and ecological contexts at both the individual and population level (Krieger, 2005, 2021). Embodiment focuses on the body as a "site of action and contestation," describing bodily experiences in relationship with external forces (Krieger, 2021). Linking housing and health through embodied truths links the "body natural" to the "body politic," highlighting the impacts of structural conditions on people's health (Krieger, 2021, p. 10; Scheper-Hughes and Lock, 1987). Understanding concepts of embodiment can provide clues to test hypotheses about

connections between lived experience to population distribution of health outcomes, determining whether historically shaped experiences and exposures produce patterns of health outcomes and can help guide actions towards health justice (Krieger, 2021).

Embodiment helps further conceptualize how place-health relationships are experienced holistically within bodies (Petteway et al., 2019a; Petteway et al., 2019b), compared to research on focused on external, disembodied neighborhood measures or clinical categorizations of disease (e.g., homicide, birth outcomes, chronic disease) (Schnake-Mahl et al., 2020; Anguelovski et al., 2021). Medicalization can conceal a range of dynamic experiences in favor of discrete diagnosis, which co-opts competing knowledge systems in favor of Western biomedicine (Clarke et al., 2003; Conrad, 1992). While medicalized categorizations of mental health experiences such as anxiety or depressive disorders are useful, understanding psychosocial experiences outside of the "medical gaze" is important theoretically and clinically (Foucault, 1988; Weaver and Kaiser, 2015). People identify with varying emotional and somatic experiences as ways of embodying external stressors, which can be incompatible in Western biomedical frameworks. Taking a non-medicalized approach to understanding health brings more visibility to the social roots of crisis and illness, where health is linked to social and environmental contexts and the place-health "conditions of displaceability" (Yiftachel, 2020) rather than individual deficiency.

Several theories serve as useful guideposts for alternative conceptualizations of how long-term, repeated place-based stressors impact our health, though have not provided frameworks for categorizing embodied health experiences. Whether expressed as idioms of distress – socially and culturally resonant means of experiencing and expressing distress within a local context (Nichter, 1981, 2010), as weathering – the cumulative impact and high-effort coping associated with stressors in high-poverty urban areas (Geronimus, 1992, 2023; Keene and Geronimus, 2011) as root-shock – traumatic stress reactions to US "urban renewal" policies (Fullilove, 2016), or as urban chronic trauma – the psychological effects of place-based state violence (Pain, 2019), these bodily idioms connect our physical, social and political "bodies" of health together (Scheper-Hughes and Lock, 1987), drawing attention to social, economic, and political factors impacting health. Recognizing these embodied presentations of distress are important for health researchers in planning large scale place & health interventions within structurally marginalized groups.

Through a case study of a predominantly Hispanic/Latinx immigrant community, this paper extends these theories through developing and defining three categories of embodied health experiences that emerge from structural vulnerability specific to exclusionary displacement pressure. This includes those who feel the pressure through diagnosable and pathologized conditions (e.g., stress and depression), those who battle and struggle against the pressure through somatic experiences (e.g., stomachaches, headaches, perseveration), and those who endure and bear the pressure through hiding their concern (e.g., those who avoid engaging in discussions or practice avoidance as a coping mechanism). While housing precarity is a major existential stress, these terms may be relevant to describing the embodied pressures related to varied sources of structural vulnerability and marginalization. Alongside other researchers studying embodiment, my goal is to provide potential pathways for others to identify how the outside world is embodied, dynamically impacting health and wellbeing (Petteway et al., 2019a).

2.3. Inequitable experiences of exclusionary displacement pressure

Drawing from the concept of intersectionality and paying attention to how axes of marginalized identity impact health (Wilson et al., 2019), individuals are made further vulnerable to poor health through exploitation and oppression – termed structural vulnerability (Bourgois et al., 2017; Quesada et al., 2011; Walter et al., 2004). Structural vulnerability is a product of economic exploitation based on discrimination by class, gender, sexuality, and race/ethnicity (Quesada et al., 2011). Grounded in analyses of politically marginalized groups and relationships with power, structural vulnerability theory reveals how uncontrolled housing cost increases, few rental support resources, and inadequacies in the social safety net lead politically marginalized groups towards poor health outcomes. This vulnerability is particularly acute for immigrants, English language learners, and undocumented immigrants in the US.

An understanding of immigration, racism, and discrimination is vital for expanding definitions of place-health relationships (Goetz, 2011; Hwang, 2016; Rucks-Ahidiana, 2021). Gentrification occurs more frequently in racially and ethnically diverse neighborhoods and immigrant destinations (Hwang, 2016; Hwang and Sampson, 2014). Low-income renters are structurally vulnerable to exclusionary displacement pressure due to political and economic factors – redlining, segregation, discrimination, low-wage work, or an individual's immigration status (Massey and Denton, 1988, 1989; Pager et al., 2009; Quesada et al., 2011; Wilson, 2012; Wacquant, 2015). There have been community-based research efforts (eg, Arcaya et al., 2018) and anti-gentrification and anti-displacement organizing with low-income communities of color across the country (eg, SF Anti-Displacement Coalition – San Francisco, CA, Living Cully – Portland, OR, GES Coalition – Denver, CO, Pilsen Alliance – Chicago, IL, among many other neighborhood-level nonprofits, tenants unions, and coalitions). These efforts are all examples of how "ownership of change" can intervene to improve social and health outcomes (Binet et al., 2022). This has also been institutionalized into pilots and anti-displacement efforts across the US at the city level such as PolicyLink's Anti-Displacement Policy Network initiative (2020), using a variety of strategies (Serrano et al., 2023).

Seminal work has focused on gentrification and displacement of Black communities due to disinvestment, racism, and redlining; such work has not been fully expanded to consider experiences of Hispanic/Latinx communities and immigrant communities (Danley and Weaver, 2018; Gutiérrez, 2022; Zuñiga, 2023). Immigrants comprise a large proportion of US population growth and are actors increasing demand for housing (Myers and Yang Liu, 2005; Passel and Cohn, 2008). In particular, undocumented immigrants and mixed-status families have increased risk of housing cost burden and housing discrimination due to their "liminal legality," ways in which uncertain legal status impacts the lives of immigrants (Menjívar, 2006). Hispanic/Latinx and Black families are more likely to be housing cost burdened (paying over 30% of their income towards housing) and lack access to wealth-building opportunities. US Hispanic/Latinx people are on average twice as likely to live below the federal poverty line and four times more likely to not finish high school than non-Hispanic White people, contributing to health disparities (Velasco-Mondragon et al., 2016). Hispanic/Latinx families – particularly Mexican Americans – have also been subjected to significant discrimination (Ortiz and Telles, 2012; Rendón et al., 2023). Histories of racism, expulsion, displacement, and deportation impact Hispanic/Latinx families today, beginning with conquest of Southwestern communities and continuing, for example, with the US racialization of Mexicans (Rendón et al., 2023).

In Colorado, Hispanic/Latinx residents are more likely to report housing instability than other racial and ethnic groups; the immigrant community in Colorado is twice as likely to report housing instability than US citizens (Colorado Health Institute, 2020). Denver is second in the nation for its rate of gentrification and leads the nation in Latinx displacement due to gentrification (Richardson et al., 2019, 2020). I explore the impacts of exclusionary displacement pressure within a low-income Hispanic/Latinx immigrant neighborhood facing early gentrification pressures in Denver, Colorado. Low-income immigrants' health experiences related to exclusionary displacement pressure must be documented to pinpoint factors contributing to ongoing disparities in population health outcomes.

3. Methods

Case: This study was a part of a 2.5 year extended case study ethnography of one neighborhood in Denver, Colorado – Westwood (Burawoy, 1998). According to the City and County of Denver, in 2016, Westwood met all three criteria for being at-risk for gentrification: lower median income, higher percentage of renter-occupied units, and higher percentage of residents with less than a bachelors' degree than city averages (2016). A confluence of foreclosure, direct investment, business development, nonprofit partnerships, and creative placemaking – the political-economy of development – led to increasing housing cost pressures. The majority of Westwood (78%) identifies as Hispanic/Latinx compared to 22% in the region (Shift Research Lab, 2020). I obtained IRB approval for this study from the Colorado Multiple Institutional Review Board in November 2019.

Participants: I began recruiting participants in January 2020. Of 35 participants who participated, 19 were recruited through flyers at local businesses, 6 through snowball sampling from community *promotoras*, and 10 through snowball sampling from existing participants. Participants were eligible if they made 30% or less of area median income (all interested individuals met inclusion criteria). The majority of participants (86%) identified themselves as Hispanic/Latinx, and 17 of those participants identified as immigrants from Mexico; several others identified as immigrants from Central American countries. See Table 1 for participant demographics (reproduced from Westbrook, 2023).

Fieldwork and Data: Fieldwork consisted of weekly time spent in the neighborhood, either volunteering, walking, shopping, or observing community spaces. Interviews were scheduled and additional informative conversations also occurred in real time during observations. Analytical memos summarized observation notes weekly, in order to reduce "lost" information between the real-time witnessing of a situation to the later recollection (Simadan, 2019). Twenty-six of 35 participants were interviewed prior to COVID-19. 25 participant interviews were conducted in Spanish. Participants were interviewed two to twenty times over a period of two years, with the majority being interviewed four to six times for periods of 30 min to an hour and a half. Interviews focused on participants' experiences of housing, health, and neighborhood change (if any). Many participants shared that they were undocumented immigrants, adding a topic of conversation. I avoided mentioning "gentrification" in interviews to elicit participants' own characterizations of the neighborhood. The first interviews took place in a local nonprofit, with half of the interviews in Spanish co-led by me and a Latinx bilingual research assistant; I completed all subsequent interviews by phone or in distanced outdoor settings. Participants were paid $40 for each formal interview.

Data Analysis: After the first set of interviews, the research assistant and I met to compare our notes, discuss emerging themes, and brainstorm further questions for subsequent interviews. I transcribed audio-recorded interviews and summarized them in English, and wrote analytic summaries of emerging themes monthly. I created a preliminary coding structure in NVivo 12 after all interviews were completed (Miles et al., 2014). Informed by abductive analysis methods (Tavory and Timmermans, 2014), I coded interview transcripts and analytical memos in two cycles: first with deductive provisional coding for conversations interrelating housing, neighborhood change, and health; second with inductive, pattern subcoding these primary themes (Saldaña, 2013). Findings presented here represent the emergent, interpretive pattern I identified through this approach towards theory building. The three categories presented below (feeling, battling, and enduring the pressure) emerged as the different types of embodied health experiences due to exclusionary displacement pressure. I crafted these terms from participants' own language and comments in Spanish. Participant names are pseudonyms, chosen by participants or by me.

Table 1
Information about 35 low-income research participants at baseline interview (January–July 2020).

Attribute	Average or Breakdown of Attribute
Gender	26 women; 9 men
Ethnicity[a]	30 Hispanic/Latinx (17 identifying as Mexican); 4 White; 1 Asian; 1 Black
Average age	46 (range: 20s–80s)
Average years of education	10th grade (range: no formal education to college degree)
Interview language	25 preferred Spanish or Spanish-only; 10 preferred English or English-only
Documentation status	Over two-thirds undocumented
Homeownership	27 renters; 8 homeowners (inclusive of 1 homeowning couple and 1 mobile home owner)
Length of time in neighborhood	11 years (range: 1 year to over 20 years)

[a] Adds to 36 as one participant self-identified as biracial (Asian and White).

4. Results/findings

Overall, participants interpreted and described their health through physical and pathologized experiences. When asked directly about their health, participants discussed how they mostly felt healthy. If relevant, they discussed a range of existing health issues focusing on physical health, but did not relate physical health experiences to housing and displacement pressure. Separately, in discussions about housing and exclusionary displacement pressure, participants spoke clearly about feeling constantly stressed about money, housing costs, and the ability to stay in their current housing situation. These discussions naturally brought up expressions of mental health and embodied health experiences, as well as coping mechanisms. Underlying each situation was the understanding of the political-economic landscape and structural vulnerability they each faced regularly (Fig. 1).

I separate and detail Hispanic/Latinx participants' experiences of exclusionary displacement pressure into three categories of embodied health experiences with different languages of suffering.

1) *Me siento apurado/a – Feeling the pressure:* Residents experienced diagnosable and pathologized conditions emerging from displacement pressure, such as stress and depression.
2) *Estoy batallando – Battling and struggling against the pressure:* Other residents embodied feelings of uncertainty amidst housing and displacement pressure through somatic symptoms and experiences, such as stomachaches, headaches, and perseveration.
3) *Estoy sobrellevando – Enduring and bearing the pressure:* As an idiom to hide concern, and an embodied experience, residents avoided engaging in conversations about health as a tool to avoid perseverating on their structural vulnerability related to housing and displacement pressure.

When reflecting on rising costs and changing environment of the neighborhood due to gentrification, participants' stories and examples draw different connections for how exclusionary displacement pressure manifests into impacts on mental health and wellbeing. Exclusionary displacement pressure created psychosocial health experiences among

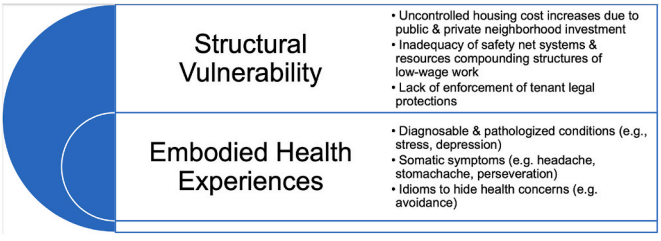

Fig. 1. Structural vulnerability and the embodiment of exclusionary displacement pressure.

low-income renters and homeowners where individuals embodied these pressures and weathered chronic urban traumas (Geronimus, 1992, 2023; Pain, 2019). This was through clear pathological disease experiences such as high blood pressure, somatic complaints of headache or stomachache, or through clear idioms of distress explicitly seeking to ignore health concerns and prioritize endurance and survival as described below.

4.1. *Me siento apurado/a – feeling the pressure*

Many participants, particularly women, discussed how stress about housing was a common experience permeating their life. Using language of feeling *apurado* (pressured), they shared their embodied experiences with high blood pressure, anxiety, and depression. These experiences fell into categories of diagnosable and pathologized conditions emerging from stress about housing and exclusionary displacement pressure.

Flor, a renter who divorced and became a single mom during the study, talked about this pressure on how stress had pathological symptoms during our first interview:

> It's emotional tension because you can't plan your life, you can't make plans. […] Before, the situation was hard, and now it's tormenting us. I have been eating more due to the stress […] Not having stability of having your own home is very frustrating. The salary of the whole month – you have to pay or pay or you have to leave. We live with this every month. It's preoccupying. […] It influences everything, how you are as a person, if you are saving money for the rent.

This self-described "emotional tension" mounted for Flor over time, leading to frequent illness that she recounted when I would follow up with her. On a day when she was extraordinarily busy and stressed, she lost her vision and blacked out twice. She was taken to the hospital and learned she had experienced her first panic attack. The experience left her more frustrated and stressed, as she was billed $11,000 for the ambulance, hospital visit, and advice to rest at home to recover. Flor reminded me she was uninsured and a contract employee; she was not paid if she could not work. She was now more anxious about covering her rent. She did not think her stress would ever end, and was trying to find coping strategies, including therapy. Flor was not the only resident dramatically impacted by these pressures – Aurora, a resident displaced from the neighborhood, mentioned struggling with severe anxiety and depression because of her housing circumstances when faced with a prior eviction. After many conversations, she shared that there was a time she was so depressed from the pressures and not being able to afford increasing rent that she had suicidal ideations.

Highlighted here are the very damaging and diagnosable impacts of stress from feeling displacement pressure, which were present but more muted in conversations I had with other women. Ines lived with her two sons, one of whom had a wife and two children, in a rental home two blocks from the edge of Westwood. During the study, they moved in together for financial reasons after living separately for a few years, to save on increasing rent costs but still stay close to their original neighborhood. They were struggling to afford the rent of the shared home, sharing during the COVID-19 pandemic:

> We are paying the rent [deep sigh]. We're not behind, but we have been late. I, yes, I told the kids, I'm going to the food bank to bring food for the house. So we save on that. My son is not working and so we've been paying. I have been stressed, stressed personally because my payments have been late because I'm working, working, working and I don't have enough hours. And I applied for rental assistance and they helped me to supplement and to support the house. But it's my son, my daughter-in-law, and me paying what we have to pay. The electric bill, it's expensive now that it's cold. There are small kids, so we can't leave the heat off.

Ines' intersectional experience of structural vulnerability and chronic stress demonstrated her recognition of the lack of situational control she had in keeping her family housed and healthy in a poorly insulated home. Ines was well connected compared to most residents, working part-time at a local nonprofit and assisting others with pandemic-era food and rental assistance. Despite receiving assistance herself, she doubled up with family during the study. Ines expressed that she was still unable to meet her housing cost demands and had grown accustomed to living in a constant state of stress.

Patty, an English-speaking homeowner, shared this feeling of pressure when talking about her ex-boyfriend who moved out over the course of the study period. Nervous about being able to make all her mortgage payments approaching retirement, cohabitation had been beneficial for her, even though she was subject to emotional abuse. She talked about how she dealt with anxiety and hypertension as a result of trying to support herself, and had a hard time knowing whether to attribute it to her situation or her body:

> I tried to take advantage of that money [from ex-boyfriend] and still live off my income, pay my bills and the mortgage, and either pay off stuff I had – some credit card debt – or save it. So my mind was already thinking, this situation is going to change. […] I'm gonna have to be on a budget until I figure out if I'll rent the house. […] I'm hoping my health improves. It's hard to say with the things going on with me, if they are stress related to my living situation or something hereditary of my own doing.

Patty's experience highlights concurrent experiences of mental health and physical health concerns tied together with being lower income and relationship issues. She could not determine whether her own body was at fault for her health, or whether it was built up pressure of precarious housing. She began exploring subsidized options to build an accessory dwelling unit in her side yard to rent during the pandemic.

To further highlight how these issues are interconnected, Mariela defined her housing stress as a constant experience related to displacement pressure during one of our early conversations:

> It gives me stress because I want to leave my space for a better place, and I can't. I feel stuck where I am because of my economic situation. Colorado is more for rich people to live, the middle class, more than poor people.

Mariela's family's rent in a small apartment complex walkable to neighborhood amenities had been increasing $50 per year. Whenever Mariela shared about searching for other rentals, she was shocked by their price and "awful shape." She continually talked about how stress was always in the background, a constant she lived with in trying to keep her family housed.

4.2. *Estoybatallando – battling and struggling against the pressure*

Many participants discussed the embodiment of exclusionary displacement pressure through using a direct expression of what it felt like, such as *batallando*, battling and fighting against the pressure. These participants said that they felt healthy, or when they shared about their poor health, they attributed these outcomes with existing medical conditions rather than their structural vulnerability. Yet, at the same time, they expressed their structural vulnerability through describing feelings of uncertainty and descriptions of how they try to keep up with increasing rents and other pressures generated by the political-economic landscape of the neighborhood. These feelings were sometimes directly discussed in relationship to somatic symptoms, such as stomachache, headache, body pain, lethargy, or perseveration, or identified as connected to somatic experiences in other parts of conversations about housing. Inherent in these conversations was the embodiment of limited control.

Veronica, a single mother of three, shared about how she felt physical symptoms related to experiences she had trying to keep her family afloat. Her former husband had been deported to Mexico, and she was

solely responsible for supporting her children through part-time work. Structurally vulnerable as an undocumented immigrant, she talked over time about how her stomach and head hurt, and she had to fight hard to work enough to make rent. Other participants echoed these same somatic experiences of stomachache, headache, or neck and shoulder pain related to their concerns about housing and displacement pressure, using words such as "fighting" and "battling" to express how hard they are struggling to make it. Maria, a recent immigrant and single mom, talked about this pressure, headaches, and lethargy she felt related to it:

> Yes, the truth is, since being in this country, I have been stressed about money. This is a country where if you have money, you're comfortable. You can pay your car, your rent, your insurance. But here, if I am good economically, I'm good. But if I'm not, I'm not. I've been disorganized with my home and my head hurts, and I'm not very happy, because of the stress of money and how much I need and how much I have to pay each month. It's a stressful situation. I've had headaches, and I don't want to get up early. [I have] less energy. I get up tired.

Susana, a daycare employee, talked similarly about her worries and how they are due to structural vulnerability. Being able to keep up with rent for her poorly-maintained basement apartment was her primary concern, given her husband had inconsistent employment as a day laborer. Susana also brought up challenges of inadequate hours, budgeting, and documentation status preventing access to governmental support or better housing. These experiences were compounded early on during the pandemic when her daycare was closed for several months. She shared about how, even once the daycare reopened, she frequently had panicked feelings and was on edge, feeling nervous, and talked about how her hair was falling out, she was eating more than normal, and cried a lot. She acknowledged she must stay healthy to pay her rent and support her family, saying "if we have health, we have everything. If I get sick, nothing will get taken care of for them." The physical and mental manifestations of her struggle grew worse over the course of the study due to her family's inconsistent income and her stated inability to move anywhere else in the neighborhood due to rising rent costs.

In these examples, participants expressed embodied experiences of emotional and physical distress related to fighting against the pressure, highlighting the precarity generated by social and economic structures of gentrification, documentation status, low-wage work, and the inadequacy of safety net systems. Their feelings of uncertainty around housing futures, and powerlessness related to their financial situations, came out in somatic ways that took a toll on their bodies and their well-being.

4.3. *Estoy sobrellevando – enduring and bearing the pressure*

As an idiom to hide concern, the majority of men and several women consciously avoided engaging in conversations about health. Many men interviewed worked as day laborers, construction workers, or landscapers, and expressed they did not have direct concerns about their health or wellbeing. This avoidance was a tool to avoid perseverating on their structural ulnerability related to housing and exclusionary displacement pressure.

Rafe and Olga, a couple I interviewed separately, had owned their home since the mid-90s and raised two now-adult daughters. They paid their housing expenses through Olga's disability checks from an old workplace injury and Rafe supplemented their income working in landscaping. A recent property tax increase brought their mortgage up to $1000 a month. It is still within what they could pay, but Olga said, "The taxes on the property have gone up a lot – *dios mio*, they are expensive. They have gone up a lot. And in some way, we have to pay, because we have to have somewhere to live." When I asked about whether Rafe was affected by increasing housing costs, he said:

> Yes, it affects me. When there is more tension about money and bills and all that, there is a little more tension. But there are many times that I try not to focus on this. I try to focus on how to get out of this, move ahead, not to go to another extreme or get sick thinking about depression or those things. I try to not think much about this. […] To distract yourself, to not think in this, because it can do pain to you and make you sick if you only think on this.

Olga echoed this response, saying, "For now, we're here, living." She preferred to not focus on stress of the future even though they desired to stay in the home and neighborhood. This concept of enduring Rafe and Olga both brought up – *sobrellevar* (enduring/bearing) – was one many participants discussed as a way to cope with constant, unchanging stress related to the sociopolitical environment of changing neighborhoods. Constrained in choice but active in thinking about displacement pressures, Rafe made the connection of how he avoided perseverating on the direness of their situation.

Many men shared similar perspectives, and gender dynamics in these interviews highlighted how masculinity was embodied, on top of expectations that discussing physical distress was not useful since they had to dissociate from their bodies and situations to endure. One day laborer, Carlos, used several idioms of distress similar to *sobrellevar* throughout our conversations, including the more fatalistic concept of *sobrevivir* (surviving). During the pandemic, he stated, "It's combined, the stress of the pandemic and of money for housing. They're the same type of pressure. The pressure to survive independently." In using *sobrevivir*, he went further to note he was doing what he could while acknowledging it was not his ideal situation. This was in tandem with conversations around omnipresent housing discrimination and lack of financial support.

Enduring and surviving was not just a concept present among men. Several mothers, no matter how they expressed embodied health experiences, shared the sentiment of not dwelling on things they could not improve, and rather, making the most of what they had. Ines noted, "We continue on with what we have." Alejandra, a mother of two who lived with her sister's family, felt sad and depressed because of her situation and did not know what she could do to pursue her dream of living independently. She said she listened to self-help books to *sobrellevar* (endure). While some concerns were related to the pandemic, she felt like she has had a hard life: "I don't feel like a depressed person that doesn't value their life. It's more that, overall, I have to do things and I can't do them, so I'm frustrated." She wondered when these feelings would pass so she could find housing separate from her sister, in an expensive housing market she felt rewarded "wealthier families with citizenship." A community health worker I volunteered with at the local food co-op captured the embodiment of endurance by writing, "Sometimes people cry, not because they are weak, but because they have been strong for a long time."

Exemplified through Alejandra's self-help books, many participants sought out strategies to endure. Participants spoke about coping mechanisms for the pressure such as being alone, exercising or walking, reading the Bible, or focusing on other things to distract from mental distress. These coping mechanisms did not relieve the pressure, but rather became moments where participants tried to separate themselves and build strategies for overcoming their emotions related to the consistent struggle of living under the "specter of dislocation" (Sullivan, 2018).

These examples show how it was painful for participants to try to explain the ways economic poverty and housing pressures impacted their health, as they lived with it daily, and it was easier to avoid expressing distress due to societal marginalization. This was doubly true for undocumented participants, and those also constrained to express physical distress as day laborers who could not acknowledge bodily weakness given their bodies were their livelihoods (Walter et al., 2004). Mariela shared about unequal power dynamics in a follow-up interview, saying that by choosing to live in a gentrifying city, "you have to do

literally anything to survive." While participants were resilient in continually responding to economic challenges of exclusionary displacement pressure, it eroded and depleted their mental health and wellbeing over time.

5. Discussion

This study illustrates how structural vulnerability leads to the embodiment of exclusionary displacement pressure. The stress of being low-income and trying to sustain housing in a changing neighborhood – particularly among immigrant and undocumented populations – contributed to several embodied health experiences: pathologized health experiences such as stress, non-diagnosable somatic symptoms, and idioms of distress to hide health concerns. Through multiple interactions over a two-and-a-half-year period, participants expressed through their bodies the rising pressure of what it meant if they couldn't keep up with rent and had to move – embodying living through exclusionary displacement pressure in an early-stage gentrifying neighborhood. Applying the construct of embodiment from ecosocial theory (Krieger, 2005) to place-health research furthers existing literature seeking to document impacts of neighborhood change and housing insecurity on health, with a focus on understanding how displacement pressures interact with specific aspects of the Hispanic/Latinx experience in the US to affect health outcomes.

Through paying attention to how participants' lived experience is shaped by structural vulnerability (Quesada et al., 2011) – lack of documentation status, inadequate work, limited access to safety net systems – I identify how exclusionary displacement pressure is constantly internalized and responded to as a unique embodied health experience. Incorporating structural vulnerability into theorizations of displacement identifies sources of power creating the "condition of displaceability," and demonstrates how people are held "in suspense, often living on borrowed time in conditions of growing vulnerability and uncertainty" (Yiftachel, 2020, p. 161). Theorizing on structural vulnerability within specific subpopulations with intersecting identities, such as low-income immigrant Hispanic/Latinx communities, provides a bottom-up refinement to existing theories of embodied health. These intersecting marginalized identities, representing broader social and structural factors, synergistically exacerbate the pressure individuals experience. Importantly, while the majority of participants were resilient in continually responding to challenges and avoiding physical displacement, I argue exclusionary displacement pressure continuously erodes and depletes population mental health and wellbeing.

Linking ecosocial theory and structural vulnerability to concepts of gentrification and displacement illustrates how embodied health experiences are created over time, and thus how they can be addressed. Participants' languages of suffering – *feeling*, *battling*, and *enduring* – clarify how they saw their bodies, separating themselves from only seeing their "individual body" to instead connecting their body to how bodies are regulated and controlled – the "body politic" (Krieger, 2021, p. 10; Scheper-Hughes and Lock, 1987; Scheper-Hughes, 1988). Following other place-health researchers who use embodiment to show how the external world is expressed through bodies (Petteway et al., 2019a), the embodiment of exclusionary displacement pressure is an expression of how social inequalities in early-stage gentrifying neighborhoods impact population health. This work adds to existing theories related to the embodiment of our environment (Geronimus, 1992, 2023; Fullilove, 2016; Pain, 2019; Krieger, 2021), helping further define embodied experiences of health in order to reduce inequities while considering the unique contexts of specific communities. These frameworks are useful together in accounting for how social, political, environmental, and economic conditions impact population health trends, as the body cannot be studied absent its surroundings like many "de-placed, de-politicized, and ironically disembodied" studies (Petteway et al., 2019a, p. 295). Exemplified here, embodied place-health research directly connects lived experience to population distribution of health outcomes (Krieger, 2021) and provides opportunity to identify mechanisms relieving pressures causing poor health.

Narrow frameworks of health conceal dynamic experiences in favor of discrete diagnosis and treatment, disregarding other knowledge systems in favor of Western biomedicine and preferencing individual health care solutions over addressing social problems (Clarke et al., 2003; Conrad, 1992; Lantz, 2019; Lyon-Callo, 2000). Understanding psychosocial experiences outside of the 'medical gaze' is important theoretically *and* clinically (Foucault, 1988; Weaver and Kaiser, 2015). The framing of embodied health experiences provides an expanded definition of health, not just for the experience of displacement pressure, but for how the stress of social structures affects individuals and their bodies. Future research can also further develop the way that embodied health experiences emerge due to other structural conditions that marginalize communities. Through the lens of intersectionality and considering participants' unique identities and experiences, we can be more attentive to addressing health inequities (Wilson et al., 2019).

There are several limitations to this study; mainly, data collection continued throughout the early stages of COVID-19, serving as an additional stressor related to housing security and impacting participants' perspectives. While the majority of preliminary interviews were conducted prior to March 2020, participants spoke to their full realities during the pandemic given that these experiences are synergistic. Following interviews had specific prompts on the impacts of COVID-19. Second, a lack of documentation status constrained certain participants' opportunities on the rental market, which may overemphasize one domain of structural vulnerability as it relates to exclusionary displacement pressure. Elsewhere, I describe the impacts of being undocumented related to pandemic-era supports (Westbrook, 2023). Third, due to social, cultural, and relational barriers as a White woman researcher, there may have been unexpressed hesitancy in talking about certain topics, including mental health. The length of the study supported relational development, though this likely is still a partial perspective (Simadan, 2019).

6. Conclusion

Attending to participants' unique contexts, these findings demonstrate how place-health relationships are experienced within bodies and how external processes such as exclusionary displacement pressure are constantly internalized and responded to as embodied health experiences. Studying exclusionary displacement pressure, as a process over time, allows us to capture the rising pressures of gentrification in an accurate and holistic way that is tied primarily to residents' lived experiences. These experiences wear on individuals over time and impact population health, *prior to* or even *in the absence of* a displacement event. Contributing a language to describe the intersections of health and housing insecurity, participants *feel*, *battle*, and *endure* the impact of exclusionary displacement pressure. Further research specific to exclusionary displacement should continue to focus on early stages of gentrification to avoid missing perspectives of those most vulnerable to exclusionary displacement pressure, and on exploring the health-related impacts of anti-displacement efforts on addressing exclusionary displacement pressure among low-income residents of color (Marcuse, 1985). I push for housing and health scholars to embrace intersectional, embodied approaches as a critical and necessary approach forward to reduce the risk of stereotyping more appropriate or culturally-specific approaches to wellness (Keys et al., 2012). Participatory and qualitative approaches should be prioritized to allow people opportunities to fully contextualize *their* place as it relates to *their* health (Petteway et al., 2019a; Petteway et al., 2019b).

The range of embodied health experiences related to housing insecurity indicates a continued need for structural interventions to stabilize families in advance of crisis. To support residents facing exclusionary displacement pressure, policy efforts to raise the minimum wage, broaden access to safety net systems, and support local community

organizing efforts giving residents decision-making power are needed (Binet et al., 2022). Housing stabilization efforts at the community and city level, such as housing navigation resources and tenant protections, should be prioritized (PolicyLink, 2020; Chapple et al., 2023), especially related to reducing barriers and burdens for low-income, immigrant, and undocumented communities.

Funding

This research was supported by the University of Colorado Denver Department of Health and Behavioral Sciences and the Barton Institute for Community Action.

Ethics statement

I obtained IRB approval for this study from the Colorado Multiple Institutional Review Board in November 2019.

CRediT authorship contribution statement

Marisa Westbrook: Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Software, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization.

Data availability

The authors do not have permission to share data.

Acknowledgements

I am grateful to the research participants for sharing their stories, needs, and visions for the future. I give special thanks to Hyeyoung Oh Nelson and Michael Harvey who provided feedback on this paper. I also thank Sara Yeatman, Jean Scandlyn, Esther Sullivan, and Tony Robinson for feedback on earlier drafts.

References

Anguelovski, I., Cole, H.V., O'Neill, E., Baró, F., Kotsila, P., Sekulova, F., Argüelles, L., 2021. Gentrification pathways and their health impacts on historically marginalized residents in Europe and North America: global qualitative evidence from 14 cities. Health Place 72, 102698.

Arcaya, M.C., Schnake-Mahl, A., Binet, A., Simpson, S., Church, M.S., Gavin, V., et al., 2018. Community change and resident needs: designing a participatory action research study in metropolitan Boston. Health Place 52, 221–230.

Baeten, G., Westin, S., Pull, E., Molina, I., 2017. Pressure and violence: housing renovation and displacement in Sweden. Environ. Plann.: Econ. Space 49 (3), 631–651.

Binet, A., Nidam, Y., Houston-Read, R., Lopez, C.G., Del Rio, G.Z., Abreu, D., et al., 2022. Ownership of change: participatory development of a novel latent construct for neighborhoods and health equity research. Soc. Sci. Med. 309, 115234.

Bourdieu, P., Accardo, A., Emanuel, S., 1999. The Weight of the World: Social Suffering in Contemporary Society.

Bourgois, P., Holmes, S.M., Sue, K., Quesada, J., 2017. Structural vulnerability: operationalizing the concept to address health disparities in clinical care. Acad. Med.: journal of the Association of American Medical Colleges 92 (3), 299.

Brown-Saracino, J., 2017. Explicating divided approaches to gentrification and growing income inequality. Annu. Rev. Sociol. 43, 515–539.

Burawoy, M., 1998. The extended case method. Socio. Theor. 16 (1), 4–33.

Chapple, K., Zuk, M., 2016. Forewarned: the use of neighborhood early warning systems for gentrification and displacement. Cityscape 18 (3), 109–130.

Chapple, K., Loukaitou-Sideris, A., Miller, A., Zeger, C., 2023. The role of local housing policies in preventing displacement: a literature review. J. Plann. Lit. 38 (2), 200–214.

Chen, K.L., Wisk, L.E., Nuckols, T.K., Ong, P.M., Ponce, N.A., Elmore, J.G., et al., 2023. Association of cost-driven residential moves with health-related outcomes among California renters. JAMA Netw. Open 6 (3), 232990-e232990.

City and County of Denver, 2016. Gentrification Study: Mitigating Involuntary Displacement. Retrieved from, Denver, CO. https://www.denvergov.org/content/dam/denvergov/Portals/690/Reports%20and%20Studies/GENT%20STUDY%20052316.pdf.

Colorado Health Institute, 2020. Colorado Health Access Survey: Making A Home for Health. Available from https://www.coloradohealthinstitute.org/research/making-home-health.

Clarke, A.E., Shim, J.K., Mamo, L., Fosket, J.R., Fishman, J.R., 2003. Biomedicalization: technoscientific transformations of health, illness, and US biomedicine. Am. Socio. Rev. 161–194.

Conrad, P., 1992. Medicalization and social control. Annu. Rev. Sociol. 209–232.

Danley, S., Weaver, R., 2018. "They're not building it for us": displacement pressure, unwelcomeness, and protesting neighborhood investment. Societies 8 (3), 74.

Deola, C., Patel, R.B., 2014. Health outcomes of crisis driven urban displacement: a conceptual framework. Disaster Health 2 (2), 92–96.

Desmond, M., 2012. Eviction and the reproduction of urban poverty. Am. J. Sociol. 118 (1), 88–133.

Desmond, M., 2016. Evicted: Poverty and Profit in the American City.

Elliott-Cooper, A., Hubbard, P., Lees, L., 2020. Moving beyond Marcuse: gentrification, displacement and the violence of un-homing. Prog. Hum. Geogr. 44 (3), 492–509.

Fallon, K.F., 2021. Reproducing race in the gentrifying city: a critical analysis of race in gentrification scholarship. Journal of Race, Ethnicity and the City 2 (1), 1–28.

Foucault, M., 1988. Naissance de la clinique.

Fullilove, M.T., 2016. Root Shock: How Tearing up City Neighborhoods Hurts America, and what We Can Do about it.

Fussell, E., Lowe, S.R., 2014. The impact of housing displacement on the mental health of low-income parents after Hurricane Katrina. Soc. Sci. Med. 113, 137–144.

Geronimus, A.T., 1992. The weathering hypothesis and the health of African-American women and infants: evidence and speculations. Ethn. Dis. 207–221.

Geronimus, A.T., Hicken, M., Keene, D., Bound, J., 2006. "Weathering" and age patterns of allostatic load scores among blacks and whites in the United States. American journal of public health 96 (5), 826–833.

Geronimus, A.T., 2023. Weathering: the Extraordinary Stress of Ordinary Life in an Unjust Society.

Goetz, E., 2011. Gentrification in black and white: the racial impact of public housing demolition in American cities. Urban Stud. 48 (8), 1581–1604.

Gutiérrez, M., 2022. "Me Siento Segura Aquí. No Quiero irme."'"I Feel Safe Here. I Don't Want to Leave." Examining the Impact of Gentrification and Displacement on the Well-Being of the Latina/o Community. Arizona State University.

He, S., 2007. State-sponsored gentrification under market transition the case of Shanghai. Urban Aff. Rev. 43 (2), 171–198.

Hwang, J., 2016. Pioneers of gentrification: transformation in global neighborhoods in urban America in the late twentieth century. Demography 53 (1), 189–213.

Hwang, J., Sampson, R.J., 2014. Divergent pathways of gentrification: racial inequality and the social order of renewal in Chicago neighborhoods. Am. Socio. Rev. 79 (4), 726–751.

Hyra, D., 2015. The back-to-the-city movement: neighbourhood redevelopment and processes of political and cultural displacement. Urban Stud. 52 (10), 1753–1773.

Keene, D.E., Geronimus, A.T., 2011. "Weathering" HOPE VI: the importance of evaluating the population health impact of public housing demolition and displacement. J. Urban Health 88 (3), 417–435.

Kern, L., 2016. Rhythms of gentrification: eventfulness and slow violence in a happening neighbourhood. Cult. Geogr. 23 (3), 441–457.

Keys, H.M., Kaiser, B.N., Kohrt, B.A., Khoury, N.M., Brewster, A.-R.T., 2012. Idioms of distress, ethnopsychology, and the clinical encounter in Haiti's Central Plateau. Soc. Sci. Med. 75 (3), 555–564.

Kleinman, A., Das, V., Lock, M.M. (Eds.), 1997. Social Suffering.

Krieger, N., 2005. Embodiment: a conceptual glossary for epidemiology. J. Epidemiol. Community Health 59 (5), 350–355.

Krieger, N., 2021. Ecosocial Theory, Embodied Truths, and the People's Health.

Lantz, P.M., 2019. The medicalization of population health: who will stay upstream? Milbank Q. 97 (1), 36.

Lees, L., Slater, T., Wyly, E.K., 2010. The Gentrification Reader, vol. 1.

Lim, S., Chan, P.Y., Walters, S., Culp, G., Huynh, M., Gould, L.H., 2017. Impact of residential displacement on healthcare access and mental health among original residents of gentrifying neighborhoods in New York City. PLoS One 12 (12), e0190139.

Lombard, M., 2013. Struggling, suffering, hoping, waiting: perceptions of temporality in two informal neighbourhoods in Mexico. Environ. Plann. Soc. Space 31 (5), 813–829.

Lyon-Callo, V., 2000. Medicalizing homelessness: the production of self-blame and self-governing within homeless shelters. Medical anthropology quarterly 14 (3), 328–345.

Mair, C., Roux, A.D., Golden, S., Rapp, S., Seeman, T., Shea, S., 2015. Change in neighborhood environments and depressive symptoms in New York city: the multi-ethnic study of atherosclerosis. Health Place 32, 93–98.

Manzo, L.C., Kleit, R.G., Couch, D., 2008. "Moving three times is like having your house on fire once": the experience of place and impending displacement among public housing residents. Urban Stud. 45 (9), 1855–1878.

Marcuse, P., 1985. Gentrification, abandonment, and displacement: connections, causes, and policy responses in New York City. Wash. UJ Urb. & Contemp. L. 28, 195.

Martin, L., 2007. Fighting for control: political displacement in Atlanta's gentrifying neighborhoods. Urban Aff. Rev. 42 (5), 603–628.

Massey, D.S., Denton, N.A., 1988. The dimensions of residential segregation. Soc. Forces 67 (2), 281–315.

Massey, D.S., Denton, N.A., 1989. Hypersegregation in US metropolitan areas: black and Hispanic segregation along five dimensions. Demography 26 (3), 373–391.

Menjívar, C., 2006. Liminal legality: Salvadoran and Guatemalan immigrants' lives in the United States. Am. J. Sociol. 111 (4), 999–1037.

Miles, M.B., Huberman, A.M., Saldaña, J., 2014. Qualitative Data Analysis: A Methods Sourcebook.
Myers, D., Yang Liu, C., 2005. The emerging dominance of immigrants in the US housing market 1970–2000. Urban Pol. Res. 23 (3), 347–366.
Nichter, M., 1981. Idioms of distress: alternatives in the expression of psychosocial distress: a case study from South India. Cult. Med. Psychiatr. 5 (4), 379–408.
Nichter, M., 2010. Idioms of distress revisited. Cult. Med. Psychiatr. 34 (2), 401–416.
Ortiz, V., Telles, E., 2012. Racial identity and racial treatment of Mexican Americans. Race and social problems 4 (1), 41–56.
Pager, D., Bonikowski, B., Western, B., 2009. Discrimination in a low-wage labor market: a field experiment. Am. Socio. Rev. 74 (5), 777–799.
Pain, R., 2019. Chronic urban trauma: the slow violence of housing dispossession. Urban Stud. 56 (2), 385–400.
Passel, J.S., Cohn, D.V., 2008. Trends in Unauthorized Immigration: Undocumented Inflow Now Trails Legal Inflow. Retrieved from. https://www.pewresearch.org/hispanic/2008/10/02/trends-in-unauthorized-immigration/.
Petteway, R., Mujahid, M., Allen, A., 2019a. Understanding embodiment in place-health research: approaches, limitations, and opportunities. J. Urban Health 96 (2), 289–299.
Petteway, R.J., Mujahid, M., Allen, A., Morello-Frosch, R., 2019b. The body language of place: a new method for mapping intergenerational "geographies of embodiment" in place-health research. Soc. Sci. Med. 223, 51–63.
Phillips, M., Smith, D., Brooking, H., Duer, M., 2021. Re-placing displacement in gentrification studies: temporality and multi-dimensionality in rural gentrification displacement. Geoforum 118, 66–82.
PolicyLink, 2020. Lessons from the All-In Cities Anti-displacement Policy Network. Retrieved from. https://allincities.org/resources-tools/ADPN-lessons.
Prior, L., Manley, D., Sabel, C., 2019. Biosocial health geography: new 'exposomic' geographies of health and place. Prog. Hum. Geogr. 43 (3), 531–552.
Quesada, J., Hart, L.K., Bourgois, P., 2011. Structural vulnerability and health: latino migrant laborers in the United States. Med. Anthropol. 30 (4), 339–362.
Rendón, M.G., Nevárez Martínez, D., Kulkarni, M.P., 2023. Latinos' housing inequality. In: The Sociology of Housing: How Homes Shape Our Social Lives, vol. 39.
Richardson, J., Mitchell, B., Franco, J., 2019. Shifting Neighborhoods. Retrieved from. https://ncrc.org/gentrification/.
Richardson, J., Mitchell, B., Edlebi, J., 2020. Gentrification and Disinvestment 2020. Retrieved from. https://ncrc.org/gentrification20/.
Rodriquez, E., Kim, E., Sumner, A., Nápoles, A., Pérez-Stable, E., 2019. Allostatic load: importance, markers, and score determination in minority and disparity populations. J. Urban Health 96, 3–11.
Rucks-Ahidiana, Z., 2021. Theorizing gentrification as a process of racial capitalism. City Community, 15356841211054790.
Saldaña, J., 2013. The Coding Manual for Qualitative Researchers.
Scheper-Hughes, N., Lock, M.M., 1987. The mindful body: a prolegomenon to future work in medical anthropology. Medical anthropology quarterly 1 (1), 6–41.
Schnake-Mahl, A.S., Jahn, J.L., Subramanian, S., Waters, M.C., Arcaya, M., 2020. Gentrification, neighborhood change, and population health: a systematic review. J. Urban Health 97 (1), 1–25.
Serrano, N., Realmuto, L., Graff, K.A., Hirsch, J.A., Andress, L., Sami, M., et al., 2023. Healthy community design, anti-displacement, and equity strategies in the USA: a scoping review. J. Urban Health 100 (1), 151–180.
Shaw, K.S., Hagemans, I.W., 2015. 'Gentrification without displacement' and the consequent loss of place: the effects of class transition on low-income residents of secure housing in gentrifying areas. Int. J. Urban Reg. Res. 39 (2), 323–341.
Shift Research Lab, 2020. Denver Metro Neighborhood Data: Westwood Neighborhood. Retrieved from. http://denvermetrodata.org/neighborhood/westwood.
Simadan, D., 2019. Revisiting positionality and the thesis of situated knowledge. Dialogues in Human Geography 9 (2), 129–149.
Slater, T., 2006. The eviction of critical perspectives from gentrification research. Int. J. Urban Reg. Res. 30 (4), 737–757.
Slater, T., 2008. 'A literal necessity to be re-placed': a rejoinder to the gentrification debate. Int. J. Urban Reg. Res. 32 (1), 212–223.
Slater, T., 2009. Missing Marcuse: On gentrification and displacement. City 13 (2–3), 293–311.
Smith, G.S., Breakstone, H., Dean, L.T., Thorpe, R.J., 2020. Impacts of gentrification on health in the US: a systematic review of the literature. J. Urban Health 97 (6), 845–856.
Smith, N., 1979. Toward a theory of gentrification a back to the city movement by capital, not people. J. Am. Plann. Assoc. 45 (4), 538–548.
Smith, R.J., Lehning, A.J., Kim, K., 2018. Aging in place in gentrifying neighborhoods: implications for physical and mental health. Gerontol. 58 (1), 26–35.
Sullivan, E., 2018. Manufactured Insecurity: Mobile Home Parks and Americans' Tenuous Right to Place.
Tavory, I., Timmermans, S., 2014. Abductive Analysis: Theorizing Qualitative Research.
Torres, S., 2020. "For a younger crowd": place, belonging, and exclusion among older adults facing neighborhood change. Qual. Sociol. 43, 1–20.
Tran, L.D., Rice, T.H., Ong, P.M., Banerjee, S., Liou, J., Ponce, N.A., 2020. Impact of gentrification on adult mental health. Health Serv. Res. 55 (3), 432–444.
Velasco-Mondragon, E., Jimenez, A., Palladino-Davis, A.G., Davis, D., Escamilla-Cejudo, J.A., 2016. Hispanic health in the USA: a scoping review of the literature. Publ. Health Rev. 37 (1), 1–27.
Versey, H.S., Murad, S., Willems, P., Sanni, M., 2019. Beyond housing: perceptions of indirect displacement, displacement risk, and aging precarity as challenges to aging in place in gentrifying cities. Int. J. Environ. Res. Publ. Health 16 (23), 4633.
Wacquant, L., 2015. In: Auyero, J. (Ed.), Invisible in Austin: Life and Labor in an American City.
Walter, N., Bourgois, P., Loinaz, H.M., 2004. Masculinity and undocumented labor migration: injured Latino day laborers in San Francisco. Soc. Sci. Med. 59 (6), 1159–1168.
Weaver, L.J., Kaiser, B.N., 2015. Developing and testing locally derived mental health scales: examples from North India and Haiti. Field Methods 27 (2), 115–130.
Westbrook, M., 2023. "I don't have a pile of money to take care of things": Financial stress and housing insecurity among low-income Hispanic/Latinx immigrant families during COVID-19. Journal of Family and Economic Issues 45, 315–326.
Wilson, W.J., 2012. The Truly Disadvantaged: the Inner City, the Underclass, and Public Policy.
Wilson, Y., White, A., Jefferson, A., Danis, M., 2019. Intersectionality in clinical medicine: the need for a conceptual framework. Am. J. Bioeth. 19 (2), 8–19.
Yiftachel, O., 2020. From displacement to displaceability: a southeastern perspective on the new metropolis. City 24 (1–2), 151–165.
Zuk, M., Bierbaum, A.H., Chapple, K., Gorska, K., Loukaitou-Sideris, A., 2018. Gentrification, displacement, and the role of public investment. J. Plann. Lit. 33 (1), 31–44.
Zuñiga, M.E., 2023. Understanding Latinx perceptions of and responses to neighborhood change. Housing Policy Debate 1–21.