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Capturing the Social Location of African American Mothers Living with HIV: An Inquiry into How Social Determinants of Health Are Framed

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Abstract

Background—The disparate health outcomes of African-American mothers living with HIV are considerable. Multidimensional approaches are needed to address the complex social and economic conditions of their lives, collectively known as the social determinants of health.

Objectives—The purpose of this paper is to explore the social determinants of health for African-American mothers living with HIV by examining how mothers describe their social location at the intersection of gender-, race-, and class inequality; HIV-related stigma; and motherhood. How they frame the impact of their social location on their health experiences is explored.

Methods—This exploratory study included in-depth, semistructured interviews with 18 African-American mothers living with HIV at three time points. We used an intersectional framework and frame analysis to explore the meaning of these constructs for participants.

Results—Findings from 48 interviews include a description of the intersecting social determinants functioning as systems of inequality and the heterogeneous social locations. Three frames of social location were used to organize and explain the how African-American mothers living with HIV may understand their social determinants of health: (a) an emancipatory frame, marked by attempts to transcend the negative social connotations associated with HIV and socially constructed identities of race, gender, and class; (b) a maternal frame, marked by a desire to maintain a positive maternal identity and maternal-child relations; and (c) an internalized frame,

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marked by an emphasis on the deleterious and stigmatizing effects of HIV, racial-, gender-, and class inequality.

Discussion—The findings offer knowledge about the heterogeneity in how demographically similar individuals frame their social location as well as how the intersections of social determinants influence participant's health experiences. Potential health implications and interventions are suggested for the three frames of social location used to describe intersecting social determinants of health. The paper offers an analytic approach for capturing the complexity inherent in intersectional methodologies examining the role of social determinants in producing health inequities.

Keywords

African Americans; health equity; HIV; mothers; photo elicitation; qualitative research; social determinants of health

Disparities in health outcomes of persons living with HIV across racial, gender, and socioeconomic groups have persisted into the fourth decade of the epidemic (Reif et al., 2014). These inequities are a focus of the National HIV/AIDS Strategy for the United States (2010) and President Obama's 2012 mandate to examine the intersection of HIV/AIDS, violence against women and girls, and gender-related health disparities ("Establishing a Working Group," 2012). Most intervention efforts to date have focused on individual risk behaviors for HIV, which while important only partially explain disparities in health outcomes (Lane et al., 2004). Understanding the social and economic situations in which people live, collectively known as the social determinants of health, helps to uncover the processes interacting to produce significant and avoidable inequities in health outcomes (Commission on Social Determinants of Health [CSDH], 2008; Hankivsky, 2012). Findings from recent research reveal the critical role social determinants play in health outcomes and suggest that work focused only on individual risk behaviors and choices is no longer adequate (Beltran, McDavid Harrison, Hall, & Dean, 2011; Centers for Disease Control and Prevention [CDC], 2010; CSDH, 2008; Lane et al., 2004). To that end, the World Health Organization released a report on the significance of the social determinants of health and urged the global community to recognize the need for action via monitoring, research and education (CSDH, 2008).

The disparate health outcomes of African-American mothers living with HIV are considerable and require multidimensional approaches to address the complex social and economic conditions of their lives. Women now represent approximately one quarter of all people living with HIV in the U.S., and most new infections are through heterosexual contact (CDC, 2015). African-American women suffer significantly higher HIV infection rates (CDC, 2015) and tend to die earlier from their infections than their White counterparts (Losina et al., 2009). Poverty is a significant precipitating factor for HIV infection (Denning & DiNenno, 2015) and African-American women live in poverty more than other subpopulations in the U.S. (United States Census Bureau, 2012).

Individually, the social determinants of race, gender, class inequality; HIV-related stigma; and motherhood have each been explored in the literature with relation to the health

experiences of African-American mothers living with HIV. Racial inequality, in the forms of racism, residential segregation by race, and the disproportionate incarceration rates of African-American males, places African-American, heterosexual women in environments with a greater proportion of individuals living with HIV, fewer potential intimate partners from which to choose, increased HIV transmission rates, and poorer health outcomes once infected with HIV (Krieger, Chen, Waterman, Rehkopf, & Subramanian, 2003; Lane et al., 2004; Smedley, 2012). Gender inequality, in the forms of gender-based violence and socially constructed economic dependence of women on men, can both increase the risk of HIV infection and contribute to poorer health outcomes for women living with HIV ("Establishing a Working Group," 2012; Maman, Campbell, Sweat, & Gielen, 2000; Zierler & Krieger, 1997). The disproportionate class or income inequality experienced by women, particularly women of color, may increase a women's HIV exposure risk factors—both through engaging in behaviors that increase the likelihood of sexual transmission as a means of meeting one's basic needs and because of generally poorer pre-existing health and nutritional status (Denning & Di Nenno, 2015; Gillespie, Kadiyala, & Greener, 2007; United States Census Bureau, 2012; Zierler & Krieger, 1997). HIV-related stigma has been shown to lead to poorer mental and physical health outcomes across a broad range of demographic profiles (Logie & Gadalla, 2009); and African-American women living with HIV are markedly more likely to experience the adverse mental, sexual, and physical health effects of HIV discrimination and stigma when compared to White women living with HIV (Wingood et al., 2007).

Mothers living with HIV describe higher levels of stress than women without children as they manage the needs of their children and their own, in circumstances such as poverty (Jones, Beach, Forehand, & Foster, 2003). They have difficulty carrying out the daily activities of motherhood while experiencing profound fatigue and other physical limitations imposed by their disease (Murphy, Johnston Roberts, & Herbeck, 2011). Mothers living with HIV also have concerns about the care of their children should they become ill and die (Author, 2003), yet paradoxically they cite motherhood and the desire to protect their children as a source of strength and a reason to live (Wilson, 2007). While the socially constructed identities of race, gender, class, and motherhood, along with the health consequences of HIV-related stigma, are each thought to act as social determinants of health for African-American mothers living with HIV; we do not know how these determinants intersect and vary as a function of one another or how women frame their social locations at the intersection of multiple identities in the context of their health experiences.

Purpose and Framework

The purpose of this paper is to explore the social determinants of health for African-American mothers living with HIV by examining how mothers describe their social location at the intersection of gender, race, and class inequality; HIV-related stigma; and motherhood, and explore how they frame the impact of their social location on their health experiences. Social location is the lived experience of members of a social group, social status based on that membership, and the way in which membership in this group shapes risk (McCall, 2009; Watkins-Hayes, 2014).

To explore the complexity of these social constructs identified in the literature and their relationships to one another, we used an intersectional framework (Caiola, Docherty, Relf, & Barroso, 2014) specific to African-American mothers living with HIV and used interpretive methods and frame analysis to examine the meaning of these constructs for participants (Koenig, 2006; Mullings & Schulz, 2006). Intersectionality is derived from the work of African-American, feminist, social scientists (Hankivsky, 2012; McCall, 2009), and offers an approach to simultaneously examining (McCall, 2009; Weber, 2006) the effects of social determinants on health (Hancock, 2007; Shi & Stevens, 2010). Intersectional approaches view social determinants of health, such as gender, race, and class inequalities, as not simply accumulative to create a triple threat, but the constructs are mutually constituted, or jointly established, and vary as a function of one another depending on an individual's particular gender, race, and class (Mullings & Schulz, 2006). For example, the societal stigma associated with living with HIV as African-American (*race*) women (*gender*) living in poverty (*class*) may operate to impact health outcomes dramatically dissimilar to that of African-American (*race*) men (*gender*) living in poverty (*class*) (Caiola et al., 2014; Mullings & Schulz, 2006). An individual's social location is subsequently determined by the varied changing configurations of these inequalities and no single form of inequality, such as gender, is privileged over others (Hankivsky, 2012). Through this lens we engaged participants in describing their social locations in everyday life and illuminated the implications of social and economic contexts for health.

Methods

Design

A qualitative descriptive design was used to explore of how African-American mothers living with HIV describe and represent the interaction between their gender-, race-, HIV-related stigma, and motherhood and their health experiences in everyday terms. Given that this design is not embedded within a broader disciplinary methodology (e.g., ethnography), it compels researchers to remain closer to the data in their interpretive moves (Sandalowski, 2000).

Participants

Participants were recruited from a semi-urban area of North Carolina designated as one of the "target states" for HIV prevention and treatment efforts in the U.S. due to the disproportionate impact of HIV as a result of overall poor health status, high poverty rates, and a cultural conservatism fostering HIV-related stigma (Reif et al., 2014). Similar to the global trend in which poorer individuals and households are disproportionately affected by the downstream impacts of the HIV infection (Gillespie et al., 2007), socioeconomic status is a major determinant of the higher morbidity of non-White women living with HIV in the Southern region of the U.S. (Meditz et al., 2011). Recruitment strategies were twofold and included: (a) placing self-referral flyers at five infectious disease clinics providing healthcare and social services for people living with HIV; and (b) sending a study invitation letter via mail to potentially eligible women who had participated in a prior study conducted by the second author.

A purposeful sampling technique was used and women were eligible to participate in the study if they: (a) were aged 18 or older; (b) self-reported HIV infection; (c) designated their race as Black/African American; (d) were able to communicate in English; (e) had one or more dependent child(ren) between the ages of 0–18 years residing in the home; and (f) reported eligibility for public assistance, Medicaid, or living below the federally designated poverty line. Poverty level was measured by the U.S. Census Bureau standards and accounts for family size and the age of the family members (United States Census Bureau, 2010).

Data Collection and Procedures

In-depth interviews conducted at three time points over eight weeks was well suited to this intersectional approach as it allowed participants the opportunity to give in-depth descriptions of complex phenomena and their meaning and relationships to one another (Mullings & Schulz, 2006). A photo elicitation technique was used during the second interview (Table 1) in which photographs taken by participants following the first interview, were used during the second interview to elicit information (Harper, 2002) and, in particular, to help them to describe social determinants not identified a priori by the research team. Interviewing participants at three timepoints over an eight-week period allowed the interviewer to build rapport over time, outline the goals and use of photography, examine the content of the photographs with the participants (Wang, 1999), while also allowing the participants time to think about and examine the social and economic complexities of the their lives (Table 1). Interviews were conducted in the participants' homes or a private room on the university campus—depending on the participant's preference—and began with broad questions such as, "Please tell me about your experiences of being a mother living with HIV," in order to encourage the participant to use a narrative storytelling style. A space of six weeks between the initial rapport-building interview and the photograph content interview gave mothers time to take pictures, mail the camera back to the research team, and have the photographs developed, without excessively extending contact time and risking attrition. In addition, the multiple interviews enhanced the iterative process by allowing our study team to begin analysis on initial interviews and modify subsequent interview guides as needed.

The interview guides were designed to explore the intersection of gender, race, and class inequality; HIV-related stigma; and motherhood experiences of African-American mothers living with HIV; and any other social determinants of health identified by participants with the goal of describing how they experience and manage in the context of intersecting social determinants of health. For example, as a means of exploring HIV-related stigma, race/racism, and motherhood, we asked, "How do you feel others treat you as an African-American mother living with HIV?" Such a question allowed her to describe any or all aspects of these determinants to a degree she felt compelled. In order to fully understand the health implications of each of the determinants, we would probe about any specific experiences of inequality (e.g., racism) described by the participant, whether she felt such an experience impacted her health, and, if so, how it impacted her health (Table 1).

The University Health System Institutional Review for Clinical Investigations reviewed and approved all phases of this study. Digitally recorded interviews were transcribed into

electronic text verbatim, and then verified for accuracy against the recordings. The interview recordings, transcribed interviews, field notes, digital photographs, and demographic data were kept electronically on a secure server and in a locked cabinet in a locked facility at the university.

Data Analysis

We used descriptive statistics to summarize the participant demographic characteristics. A content analysis procedure was used to code the interview data across the entire sample which had been imported into a text-based software program for organization and management. We used a combination of coding methodologies to analyze the data for overall health strengths and vulnerabilities, as well as the meaning that the social determinants held in the health experiences of each participant (Miles, Huberman, & Saldana, 2014; Saldana, 2013).

The primary theoretical concepts, race, gender, class inequality, HIV-related stigma and motherhood—derived from the literature and the intersectional framework—were operationalized as socially constructed determinants of health. These concepts were assessed in the first cycle of coding using an a priori structural coding scheme (Saldana, 2013) derived from the conceptual framework (Author, 2014). The structural coding was also used to assess the valence (positive or negative) of the health determinants as either strengths or vulnerabilities, respectively (Britt & Evans, 2007; Saldana, 2013). The participants' self-assessments of the impact and meaning of the determinants in their daily lives was used to code the valence of a determinant as either a strength or vulnerability. These were represented as uppercase letters for vulnerabilities (race [R], class [C], gender [G], HIV-related stigma [S], and motherhood [M]) and uppercase letters preceded by a tilde for strengths (race [~R], class [~C], gender [~G], HIV-related stigma [~S] and motherhood [~M]) (Britt & Evans, 2007). Example structural code definitions and exemplar quotes are provided in Table 2. To examine participants' experiences of intersecting determinants and their impact on health, the text was analyzed for the co-occurrence of two or more determinants within the same significant statement or meaningful unit of text. Once intersecting social determinants were coded, we categorized the data and used the categories to create themes using pattern coding (Saldana, 2013).

We moved from structural coding to exploring how participants' social determinant valence patterns (positive or negative) may have influenced their self-assessments of health and in particular how they described the patterns of co-occurring determinants as intersecting in their day-to-day lives. We used a frame analysis method (Koenig, 2006) to explain how the participants described their social locations that result from intersecting social determinants. Researchers have used frame analysis as an interpretive move to explain how individuals understand social experiences and talk about them in terms of everyday schemes like beliefs, images or symbols (Britt & Evans, 2007; Irwin, 2015; Virkki et al., 2015). The important step in distinguishing frames is identifying the key or normative concern driving each contesting frame (Britt & Evans, 2007). We used the codes and consensus across two reviewers to hypothesize participants' primary frames based on the salience with which they seemed to identify with the key moral or normative concern driving the frames. Frame

analysis was only used for participants that completed all three interviews so that we could juxtapose each social determinant of health as perceived by the individual participant to her overall health self-assessment—which occurred during the third interview. This approach is grounded in the landmark work of Goffman (1974), who defined frames as "schemata of interpretation" (p. 21); or how individuals understand or make meaning of their social context. Thus, the goal of this step in the analysis was to search for the frames or ways that African-American mothers living with HIV and in poverty make meaning of their social locations as it pertains to health (Goffman, 1974).

Our search for explanatory frames to capture how participants talked about their social locations at the intersection determinants of health began with constructs central to intersectionality and maternal identify theory and research (Sandelowski & Barroso, 2003; Hancock, 2007), but then moved to particularly heterogeneous themes established in the pattern coding (Britt & Evans, 2007; Miles et al., 2014). For example, the primary normative concern driving mothers living with HIV was maintaining a positive maternal identity and maternal–child relations. In their meta-synthesis of 56 qualitative reports examining motherhood in the context of HIV infection, Sandelowski and Barroso (2003) reported that protecting one's children and preserving a positive maternal identity were two primary goals of mothers as they dealt with the illness and its associated social consequences. One of the great paradoxes of motherhood in the context of HIV, however, is that while motherhood is generally considered a cultural norm for women, it is viewed as a deviant act for women living with HIV (Sandelowski & Barroso, 2003). So, we further hypothesized that as a woman becomes less committed to the notion of motherhood in HIV as a normative act and responds more acutely to social stigma and the need to justify any acts of "deviance," space opens up for the development of other frames that respond to those social circumstances.

Assuring trustworthiness—Enhancing the trustworthiness of the results of this study began with a congruence between the design, purpose, methods, and connectedness to theory (Miles et al., 2014). In an effort to ensure that our design was credible and valid, we defined the concepts in the framework (Caiola, Docherty, Relf, & Barroso, 2014), ensured the interview guide reflected these concepts and attempted to gather data that was context rich (Miles et al., 2014). To enhance the confirmability of the study, we retained the data and created an audit trail detailing the methods and analytic procedures such that the data could be reanalyzed (Miles et al., 2014). Moreover, we attempted to heighten the confirmability by practicing reflexive thinking—through participant, peer, and mentor feedback—and journaling about personal biases (Miles et al., 2014). We enhanced the dependability of the study by ensuring that at least two of the authors met biweekly over the course of the study to code data, review findings, assess that the analysis reflected the data collected, and explore issues of divergent findings (Miles et al., 2014). Finally, we assured transferability of the findings by providing rich descriptions so that readers may connect findings, whether they are confirming or disconfirming, to the conceptual framework (Miles et al., 2014).

Results

Participant Characteristics

After screening 22 women, 18 were enrolled in the study and sampling ended when no new themes could be derived during analysis of the interviews (Marshall & Rossman, 2011). Thirteen of the 18 women were recruited through self-referral flyers at infectious disease clinics, and the other five responded to the study invitation letter sent via mail to potentially eligible women who had participated in a prior study aimed at reducing HIV-related stigma conducted by the second author. We completed a total of 48 interviews with the 18 participants. They ranged in age from 25 to 57 years (M = 41.5), had been living with HIV from five to 32 years (M = 13), and had attained between 11 to 16 years (M = 12.56) of education. Participants reported between one and five dependent children living in their homes (M = 1.6*).* Four of the participants reported parenting children other than their biological children, such as grandchildren, stepchildren, or nieces/nephews, and one participant was pregnant. All three interviews were completed by 14 of the 18 participants enrolled in the study. Of the four who did not complete all three interviews, two were lost to follow up after the first interview, one after the second interview, and one participant's third interview was suspended midway through due to severe emotional distress not related to the study. Reasons for study attrition included homelessness, emotional distress, hospitalization, and one unknown reason.

Content Analysis: Intersecting Social Determinants of Health

Embedded in participants' talk of being a mother living with HIV were descriptions of how social determinants impact their health. Some of the codes applied to the data were determined a priori and others were inductively derived. This analysis utilized only codes labeling data about a mother's social location. Participants talked about their health in a natural and easy manner and when probed about specific social determinants, described them as interacting in various combinations and permutations. The majority of the data reflected social determinants that intersected to elicit an overall negative health response or worked concurrently to impact the participant's health in a negative way. For example, one participant described the multidimensional and negative intersection of race, gender and HIV-related stigma when she offered:

> I don't know, it's like a lot of people … for a Black woman, to me, they find out you're HIV or AIDS, you've got to be, you've got to have been a prostitute. Or you had to sell your body or you're considered a little bit like nasty … That's why you know like I said, my last interview before that was like … you just can't let everybody know, it's not that I'm ashamed of this but there's a lot of cruelty out there you know?

Here, the participant asserts that the specific HIV-related stigma she experiences by being perceived as a prostitute is mutually constituted or jointly determined by the specific racial and gender inequality she experiences as a Black woman. This participant went on to report significant psychosocial health implications from such experiences, but denied they had ever stopped her from accessing treatment.

Participants also described social determinants that intersected to elicit an overall positive health response or how they worked concurrently to impact their health in a positive way. When one participant was asked to describe the ways, if any, she felt being a woman impacted her experience of living with HIV, she responded:

> I don't know if I can really answer that because … being a woman with HIV, for me, I would say it's different because I'm a mother … [being a mother] makes it different because it makes you want to take care of yourself even more, to be here for your children to school them, about the disease…

Of the determinants identified a priori, participants described only motherhood and gender as intersecting to be mutually constituted strengths.

Participants described instances in which social determinants intersected in such a way as to oppose one another. In other words, while one determinant might be negatively impacting her health, another might be acting as an opposing positive force. For instance, one participant described how motherhood acts as an opposing health determinant in her life against the HIV-related stigma and racism that she experiences:

> I think that's—as a matter of fact I know that's why I've made it this far, because I don't think if it was for them [her children], I probably would have given up a long time ago … I look at it as if God knew, he knew that I would need that kind of motivation because if I did not have my children I'd probably just lay down in a corner somewhere just like leave me alone, let me die.

Without exception, motherhood was the only social determinant identified a priori that participants described as exerting a positive influence against negative determinants. Contrary to a conclusion that motherhood is the only social determinant positive impacting the health of these women is that it may be the only social determinant impacting the health of these women that was identified a priori. Throughout the interviews, participants described other positive social determinants of health that were not identified a priori.

Frame Analyses

Analysis of the 14 participants who had completed all three interviews revealed great variation in the configurations of the social determinants and the primary frame they used to talk about their social locations and their self-assessments of health. All of the participants in this sample self-identified as African-American, female mothers living with HIV; and, therefore, they all at least minimally identified with a social constructed identity as women and African American, their role as mothers to nurture and care for their child(ren) and their diagnosis with HIV and its associated health risks. Self-identifying with any of these social identities implies some minimal acceptance of that identity. Not all of the women appeared to identify equally with their health conditions or socially constructed identities, and the distributions are noted in the contesting frames, with some mothers identifying more closely and consistently with a specific frame of social location and less so or not at all with other frames.

We propose three frames to explain central features of how African-American mothers living with HIV talked about and ascribed meaning to the role that social determinants played in

their current social locations: (a) an emancipatory frame marked by attempts to transcend the negative social connotations associated with HIV and socially constructed identities of race, gender, and class; (b) a maternal frame marked by a desire to maintain a positive maternal identity and maternal–child relations; and, (c) an internalized frame marked by an emphasis on the deleterious and stigmatizing effects of HIV, racial, gender, and class inequality. A mother's primary frame reflects the salience of her normative concern, as well as the patterning of the valence of the social determinants. Table 3 displays the distribution of participants by their social locations frame and patterning in positive or negative valence of the role that the social determinants played in their self-assessments of health.

Emancipatory frame—Three mothers in this study were categorized as operating primarily from an emancipatory frame. Two aspects of their descriptions of motherhood and HIV and the intensity with which they perceived the deleterious impact of the social determinants of race, class, gender, and HIV-related stigma on their health aligned with an emancipatory frame. The first was the extent to which they described the relationship between their HIV infections and motherhood. Participants utilizing this as a primary frame ($n = 3$) had not disclosed their HIV status to their children and, while they described their maternal–child relations and identities as mothers in positive ways, they deflected questions about the impact of motherhood on their HIV infections and how HIV might impact their mothering role or maternal–child relations. For example, one participant who is a stepmother and also pregnant with her first biological child, stated:

> And motherhood it doesn't affect [my HIV] … I don't think it will affect it. I mean not at all.

A second feature that was helpful in discriminating an emancipatory frame was the extent to which a mother minimized the deleterious effects of the social determinants of race-, class-, gender-, and HIV-related stigma on their health during the interviews. The participants either reported that they had no impact on their health and they were coded as nondeterminants or they reported that they had a positive impact on their health. The participants appeared to be attempting to transcend the negative social connotations associated with their disease and socially constructed identities by making an intentional discursive move away from a narrative of oppression to emancipation (Sandelowski & Barroso, 2003). These discursive countermoves, or self-altering "perceptions of a negative, distorted or self-defeating belief with the goal of changing behaviors and/or improving well-being," were evident in their propensity for cognitive reframing within the interviews (Robson & Troutman-Jordan, 2014, p. 58). Two participants identified their religious/spiritual beliefs as the tool for positively reframing their situations. For example, one participant stated:

> I don't let nothing tie me down. I really cast it upon the Lord and I just deal with it and what's done, that's it I just won't hold it with me. And I just basically stay in the positive, all around positive in everything. And I refuse to just, I refuse to talk about it [her HIV status], bring negativity or allow negativity in my life or my daughter's life.

The participants tended who to reframe their circumstances also tended to give positive self-assessments of their own health.

Maternal frame—The majority of mothers ($n = 9$) in this study were categorized as operating primarily from a maternal frame of social location. The identification of a maternal frame rested heavily on mothers' moral or normative concerns of maintaining a positive maternal identity and maternal–child relations—which was initially identified in the literature and subsequently substantiated within this data. These participants were strongly committed to a notion that motherhood buffered the negative effects of their HIV infection and that having HIV enhanced their maternal identity and relationships with their children. For example, one participant described the buffering effects of motherhood in the following way:

> So you know just being a mom and trying to be here for my children makes it [living with HIV] better for me.

They often described motherhood as the impetus for taking care of their health and living as long and as well as possible. They also positively described their roles as mothers and their relationships with their children. Like the participants with emancipatory frames, they utilized cognitive reframing, but they did so to a lesser degree and primarily in the context of motherhood. In other words, maintaining a positive maternal identity and maternal–children relations was the impetus for the reframing. A second aspect of the descriptions provided by this group of mothers was that there was little symmetry across participants in their perceptions of the impact that social determinants (i.e., race, class, gender and HIV-related stigma) had on their health. Because these participants adhered so strongly to their desire to maintain their positive maternal identity and maternal–child relations, they also reported positive health self-assessments attributing much of their health to these two aspects of their lives.

Internalized frame—Two mothers ($n = 2$) in this study were categorized as operating primarily from an internalized frame. Two aspects of participants' descriptions of motherhood and HIV and the intensity with which they perceived the deleterious impact of the social determinants of race, class, gender, and HIV-related stigma on their health were helpful in discriminating an internalized frame. The first feature noted in participants utilizing this as their primary frame was the extent to which they described a negative relationship between their HIV infection and motherhood. These participants often detailed the negative impact motherhood had on their ability to care for their own health and needs. They would describe the fatigue they experienced from mothering and difficulty they had in maintaining their health as they cared for their children. For example, one participant stated:

> Taking care of kids, having kids, having children running around and working …'cause I know for me for years I like 'I got to work, I got to work' and put my doctor's appointments to the sides because I had to go. And I rescheduled, I rescheduled, I rescheduled.

Additionally, they reported either negative interaction with their children and/or did not disclose instances of how HIV enhanced their relationships with their children. The second feature was the extent to which they emphasized the deleterious effects of the social determinants of race, class, gender, and HIV-related stigma on their health during the interviews. The participants appeared to desire a sense of normality in their social context,

which notably emphasizes the dominant values of White, middle-class mothers *not* living with HIV. For instance, a 54-year-old woman with two dependent children stated, “Well, with me, I feel that we can’t do things normal, like ah, companionship” (Interview 3). Participants, therefore, reported instances of racism, gender inequality (e.g., sexual assault), HIV-related stigma, and difficulties managing their health conditions with current financial/material resources. These participants rarely reframed their situations, and gave negative or equivocal self-assessments of their own health based on their personal definition of health.

Qualitative cross-case comparative analysis is summarized in Table 3, which shows how the patterns in the structural codes were used to develop these frames. Table 4 provides exemplar quotes demonstrating the distinctions among the three frames—emancipatory, maternal, and internalized. We suggest that these frames reflect how participants understand and navigate their social circumstances or social locations—be it in a potentially adaptive or maladaptive fashion. As such, these frame analyses generate potential hypotheses about the health implications of these contesting frames of social location and if certain combinations lead to greater health challenges and vulnerability to poorer health outcomes (Shi & Stevens, 2010). Further, they open an avenue of potential process and structural health interventions specific to mothers with varying frames that can help women generate more positive health self-assessments.

Discussion

Using an intersectional approach, we analyzed data derived from in-depth interviewing and sought to explain how the intersection of social determinants influenced health experiences of African-American mothers living with HIV in the southeastern region of the U.S. The findings from the content analysis bring to light the familiar interlocking systems of race, class, and gender inequality conceptualized and documented in contemporary intersectional scholarship (McCall, 2009). Additionally, because of the contextual nature of this study and its focus on health determinants of a specific disease (HIV) in a specific population (mothers), the findings also illuminate how disease-specific phenomena such as HIV-related stigma and socially constructed identities, such as motherhood, may also interact simultaneously as determinants of health. These findings support how structural inequalities may function to produce poorer health outcomes for this population and speak to the increasing recognition that structural interventions, altering the social context in which people make health choices, likely possess the greatest potential for impact on population health (Frieden, 2010).

Our findings highlight the interlocking *systems* of race, class, gender inequality, and HIV-related stigma, and point more specifically to the experience of mothers responding to those systems, the social construction of their specific social locations, and how they interpret and navigate the social relationships and power differentials inherent in those locations (McCall, 2009). The participant’s framing of her social determinants of health as strengths or vulnerabilities—and the meaning those determinants hold as she compares herself to others and considers her own social context—can shed light on her subjective experience of health inequality or vulnerability (Bottero, 2004; Irwin, 2015). In other words, a participant’s own assessment of her overall health vulnerability and subjective social location may not only

help anticipate her health experiences, but also act to shape them (Bottero, 2004; Irwin, 2015). These findings, in particular, illuminate the heterogeneity in social locations as framed from the mothers' perspectives through time, context, and space (Weber, 2006).

Emancipatory Frame

The participants with emancipatory frames appeared to be attempting to transcend the negative social connotations associated with their disease and socially constructed identities by making an intentional discursive move away from a narrative of oppression to that of emancipation (Sandelowski & Barroso, 2003). These participants' attempts to transcend or emancipate themselves from the negative social characterizations associated with their race, class, gender, and HIV status might be likened to the Superwoman Schema or the Sojourner Syndrome suggested in the literature focused on health disparities in African-American women (Mullings, 2005; Woods-Giscombe, 2010). While slightly different in their conceptualizations, each of these schema is described as an interpretive frame of resistance and resilience developed by African-American women in response to the intersecting and historical oppressions of race, class, and gender from slavery forward (Mullings, 2005; Woods-Giscombe, 2010). These interpretative frames are also described as survival strategies having both negative and positive health consequences (Mullings, 2005; Woods-Giscombe, 2010). Benefits of this frame may include resiliency, preservation of self-identity, family, and community (Woods-Giscombe, 2010); benefits which may be particularly relevant for mothers. Detriments of the frame may include strain in interpersonal relationships, stress, and embodiment of stress that may lead to the stress-induced health disparities noted in this population by the literature on "weathering" and allostatic load (Geronimus, Hicken, Keene, & Bound, 2006). Process level interventions for mothers with an emancipatory frame would then need to be directed toward stress and coping management, as well as ongoing assessment of and assistance with HIV self-management strategies congruent with their faith beliefs—which are sometimes used as a basis for cognitive reframing.

Maternal Frame

Participants with maternal frames were strongly committed to a notion that motherhood buffered the negative effects of HIV infection, that having HIV enhanced their maternal identities and relationships with their children, and had a range of perceptions and propensity for reframing the impact the specific social determinants (i.e., race, class, gender, and HIV-related stigma) had on their health. The health implications for women with this frame are likely to stem from the moral or normative concern driving this frame: motherhood. These women may be particularly vulnerable to any threats to a positive maternal identity or maternal–child relations. Examples include the loss of a child, a child acquiring HIV perinatally, or stigma experienced by the child secondary to the mother's HIV status. Additionally, all process level interventions for mothers with a maternal frame will need to acknowledge the centrality of motherhood (Author, 2003) and be attentive to the family and caregiving responsibilities she is likely to prioritize (Harrison, Short, & Tuoane-Nkhasi, 2005).

Internalized Frame

Participants with internalized frames of social location distinguished themselves by the extent to which they embodied or internalize the negative aspects of mothering as it related to their HIV infection, and emphasized the deleterious effects of race, class, gender, and HIV-related stigma on their health. The potential health ramifications of this particular frame are abundant, align with the literature exploring the health implications of all stigmatizing conditions and may include such things as aggravated symptoms, depression, impaired coping, decreased utilization and access to health services, poor physical health, lack of social support, weathering, and high allostatic load measures (Author, 2003; Geronimus et al., 2006; Grov, Golub, Parsons, Brennan, & Karpiak, 2010; Logie & Gadalla, 2009). Process level interventions for mothers with highly internalized frames will clearly need to focus on aspects of mental and emotional health and stigma reduction interventions (Stangl, Lloyd, Brady, Holland, & Baral, 2013).

A discussion of the link between frames of social location and process level interventions is potentially problematic as it may emphasize individual risk and behavior, focusing on helping people cope with oppressive social conditions; thus, distracting attention from the numerous and difficult structural changes and interventions that need to occur in order to address systems of inequality perpetuating disparate health outcomes of African-American mothers living with HIV (Mullings, 2005; Woods-Giscombe, 2010). Nonetheless, we argue that the findings from these analyses provide empirical evidence supporting the presence of heterogeneity among a demographically similar group of people, challenge the assumption that disparate health outcomes are intractable in highly affected communities, and work against the persistent marginalization of communities based on demographic characteristics (Bauer, 2014). Additionally, a greater understanding of a patient's health experiences, social location, and the social forces influencing their healthcare decisions is critical for providers as they work with patients to develop realistic and attainable healthcare plans and goals (Safford, Allison, & Kiefe, 2007).

Clinical and Research Implications

The exploratory findings from this study have important clinical and research implications. To our knowledge, no study has described the intersection of race, class, gender inequality, HIV-related stigma, and motherhood. The findings from this study offer insights and guidance for health practitioners regarding the social systems of inequality at work in the lives of their patients, the possible frames of interpretation the mothers may be using to navigate those social relationships, the power differentials and structures that shape their clinical encounters, and the potential health implications of each of these elements. The findings support strength-based approaches to clinical management, such as approaches acknowledging the centrality of motherhood. They also bolster a recent movement away from health practitioner education approaches that emphasize cultural competency to those who underscore structural competency in addressing stigma and health inequality (Metzl & Hansen, 2014).

Future research is needed to explore and test relationships among the intersecting social determinants of health, health experiences, and health outcomes as proposed in

intersectional approaches. Understanding the relative contributions of each of the determinants on mothers' health experiences and subsequent health outcomes will require further exploration into robust quantitative and qualitative data analytic techniques to examine these factors (Safford et al., 2007). The conceptual, methodological, and analytic approaches utilized in this study expand current thought; however, significant challenges in executing intersectional approaches remain. In particular, additional innovative approaches that facilitate participant engagement and trust are important so that the nuances of the social location of these mothers can be fully understood. Likely this will require significant cooperation and collaboration between multidisciplinary teams that can offer the strengths and diversity of approaches needed to address such complexity.

Limitations

The findings from this study may be limited by selection bias and study attrition. Five participants ($n = 5$) who had prior enrollment in a study examining the efficacy of a stigma reduction intervention and, thus, met a minimum threshold on an internalized stigma scale for enrollment in that study, may have higher levels of internalized stigma than the general population of persons living with HIV. However, HIV-related stigma is known to be pervasive among women living with HIV (Colbert, Kim, Sereika, & Erlen, 2010; Shacham, Rosenburg, Onen, Donovan, & Overton, 2015) and, therefore, we feel that the two recruitment strategies likely produced a sample reflective of the same population. Other participants ($n = 13$) were recruited from infectious disease clinics and, consequently, were at least minimally engaged in care and may have experiences different from those that are not actively engaged in HIV care. Study attrition—meaning those mothers not completing all three interviews—was high with four out of the 18 participants not completing all three interviews.

Conclusions

The social location and health experiences of African-American mothers living with HIV operates at the intersection of gender, race, and class inequality; HIV-related stigma; and motherhood, and mothers develop frames of interpretation to navigate those social relationships and power differentials. A great deal of work is needed to imagine, construct, test, and build the body of evidence for the structural interventions needed to impact these social structures and health inequities through policy, law, and practice.

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References

Bauer GR. Incorportating intersectionality theory into population health research methodology: Challenges and the potential to advance health equity. Social Science & Medicine. 2014; 110:10–17. DOI: 10.1016/j.socscimed.2014.03.022 [PubMed: 24704889]

Beltran VM, McDavid Harrison K, Hall HI, Dean HD. Collection of social determinant of health measures in U.S. national surveillance systems for HIV, Viral Hepatitis, STDs, and TB. Public Health Reports. 2011; 126(Suppl. 3):41–53.

Bottero W. Class identities and the identity of class. Sociology. 2004; 38:985–1003. DOI: 10.1177/0038038504047182

Britt DW, Evans MI. Sometimes doing the right thing sucks: Frame combinations and multi-fetal pregnancy reduction decision difficulty. Social Science & Medicine. 2007; 65:2342–2356. DOI: 10.1016/j.socscimed.2007.06.026 [PubMed: 17698273]

Caiola C, Docherty SL, Relf M, Barroso J. Using an intersectional approach to study the impact of social determinants of health for African American mothers living with HIV. Advances in Nursing Science. 2014; 37:287–298. DOI: 10.1097/ANS.0000000000000046 [PubMed: 25365282]

Centers for Disease Control and Prevention. Establishing a holistic framework to reduce inequities in HIV, viral hapatitis, STDs, and tuberculosis in the United States: An NCHHSTP white paper on Social determinants of health, 2010. Atlanta, GA: Author; 2010. Retrieved from www.cdc.gov/socialdeterminants/docs/SDH-White-Paper-2010.pdf

Centers for Disease Control and Prevention. HIV surveillance report, 2014. 2015 Nov. p. 26Retrieved from http://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-us.pdf

Colbert AM, Kim K, Sereika SM, Erlen JA. An examination of the relationships among gender, health status, social support, and HIV-related stigma scale. Journal of Nurses in AIDS Care. 2010; 21:302–313. DOI: 10.1016/j.jana.2009.11.004

Commission on Social Determinants of Health. Closing the gap in a generation: Health equity through action on the social determinants of health Final Report of the Commission on Social Determinants of Health. Geneva, Switzerland: World Health Organization; 2008.

Denning, P., DiNenno, E. Communities in crisis: Is there a generalized HIV epidemic in impoverished urban areas of the United States?. 2015. Retrieved from https://www.cdc.gov/hiv/group/poverty.html

Establishing a Working Group on the Intersection of HIV/AIDS, Violence Against Women and Girls, and Gender-related Health Disparities: Presidential memorandum. 77 Federal Register. Apr 3.2012 20277:20277–20279. Retrieved from https://www.federalregister.gov/documents/2012/04/03/2012-8164/establishing-a-working-group-on-the-intersection-of-hivaids-violence-against-women-and-girls-and.

Frieden TR. A framework for public health action: The health impact pyramid. American Journal of Public Health. 2010; 100:590–594. DOI: 10.2105/AJPH.2009.185652 [PubMed: 20167880]

Geronimus AT, Hicken M, Keene D, Bound J. “Weathering” and age patterns of allostatic load scores among Blacks and Whites in the United States. American Journal of Public Health. 2006; 96:826–833. DOI: 10.2105/AJPH.2004.060749 [PubMed: 16380565]

Gillespie S, Kadiyala S, Greener R. Is poverty or wealth driving HIV transmission? AIDS. 2007; 21(Suppl. 7):S5–S16. DOI: 10.1097/01.aids.0000300531.74730.72

Grov C, Golub SA, Parsons JT, Brennan M, Karpiak SE. Loneliness and HIV-related stigma explain depression among older HIV-positive adults. AIDS Care. 2010; 22:630–639. DOI: 10.1080/09540120903280901 [PubMed: 20401765]

Hancock A. Intersectionality as a normative and empirical paradigm. Politics & Gender. 2007; 3:248–254. DOI: 10.1017/S1743923X07000062

Hankivsky O. Women’s health, men’s health, and gender and health: Implications of intersectionality. Social Science and Medicine. 2012; 74:1712–1720. DOI: 10.1016/j.socscimed.2011.11.029 [PubMed: 22361090]

Harper D. Talking about pictures: A case for photo elicitation. Visual Studies. 2002; 17:13–26. DOI: 10.1080/14725860220137345

Harrison A, Short SE, Tuoane-Nkhasi M. Re-focusing the gender lens: Caregiving women, family roles and HIV/AIDS vulnerability in Lesotho. AIDS Behavior. 2005; 18:595–604. DOI: 10.1007/s10461-013-0515-z

Irwin S. Class and comparison: Subjective social location and lay experiences of constraint and mobility. British Journal of Sociology. 2015; 66:259–281. DOI: 10.1111/1468-4446.12121 [PubMed: 25939681]

Jones DJ, Beach SR, Forehand R, Foster SE. Self-reported health in HIV-positive African American women: The role of family stress and depressive symptoms. Journal of Behavioral Medicine. 2003; 26:577–599. DOI: 10.1023/A:1026205919801 [PubMed: 14677213]

Koenig T. Compounding mixed-methods problems in frame analysis through comparative research. Qualitative Research. 2006; 6:61–76. DOI: 10.1177/1468794106058874

Krieger N, Chen JT, Waterman PD, Rehkopf DH, Subramanian SV. Race/ethnicity, gender, and monitoring socioecomic gradients in health: A comparison of area-based socioeconomic measures—The Public Health Disparities Geocoding Project. American Journal of Public Health. 2003; 93:1655–1671. DOI: 10.2105/AJPH.93.10.1655 [PubMed: 14534218]

Lane SD, Rubinstein RA, Keefe RH, Webster N, Cibula DA, Rosenthal A, Dowdell J. Structural violence and racial disparity in HIV transmission. Journal of Health Care for the Poor and the Underserved. 2004; 15:319–335. DOI: 10.1353/hpu2004.0043

Logie C, Gadalla TM. Meta-analysis of health and demographic correlates of stigma towards people living with HIV. AIDS Care. 2009; 21:742–753. DOI: 10.1080/09540120802511877 [PubMed: 19806490]

Losina E, Schackman BR, Sadownik SN, Gebo KA, Walensky RP, Chiosi JJ, Freedberg KA. Race and sex disparities in life expectency losses among HIV-infected persons in the United States: Impact of risk behavior, late initiation, and early discontinuation of antiretroviral therapy. Clinical Infectious Diseases. 2009; 49:1570–1578. DOI: 10.1086/644772 [PubMed: 19845472]

Maman S, Campbell J, Sweat MD, Gielen AC. The intersections of HIV and violence: directions for future research and interventions. Social Science & Medicine. 2000; 50:459–478. DOI: 10.1016/S0277-9536(99)00270-1 [PubMed: 10641800]

Marshall, C., Rossman, GB. Designing qualitative research. 5th. Thousand Oaks, CA: Sage; 2011.

McCall, L. Introduction. In: Berger, MT., Guidroz, K., editors. The intersectional approach: Transforming the academy through race, class and gender. Chapel Hill, NC: The University of North Carolina Press; 2009. p. 1-22.

Meditz AL, MaWhinney S, Allshouse AW, Feser Markowitz M, Little S, Connick E. Sex, race, and geographic region influence clinical outcomes following primary HIV-1 infection. Journal of Infectious Diseases. 2011; 203:442–451. DOI: 10.1093/infdis/jiq085 [PubMed: 21245157]

Metzl JM, Hansen H. Structural competency: Theorizing a new medical engagement with stigma and inequality. Social Science & Medicine. 2014; 103:126–133. DOI: 10.1016/j.socscimed.2013.06.032 [PubMed: 24507917]

Miles, MB., Huberman, AM., Saldana, J. Qualitative data analysis: A methods sourcebook. 3rd. Thousand Oaks, CA: Sage; 2014.

Mullings L. Resistance and resilience: The Sojourner Syndrome and the social context of reproduction in central Harlem. Transforming Anthropology. 2005; 13:79–91. DOI: 10.1525/tran.2005.13.2.79

Mullings, L., Schulz, AJ. Intersectionality and health: An introduction. In: Schulz, AJ., Mullings, L., editors. Gender, race, class & health: Intersectional approaches. San Fransisco, CA: Jossey-Bass; 2006. p. 3-17.

Murphy DA, Johnston Roberts K, Herbeck DM. HIV disease impact on mothers: What they miss during their children's development years. Journal of Child and Family Studies. 2011; 20:361–369. DOI: 10.1007/s10826-010-9400-9 [PubMed: 21637348]

Reif S, Pence BW, Hall I, Hu X, Whetten K, Wilson E. HIV diagnosis, prevelance and outcomes in nine Southern States. Journal of Community Health. 2014; 40:642–651. DOI: 10.1007/s10900-014-9979-7

Robson JP, Troutman-Jordan M. A concept analysis of congnitive reframing. Journal of Theory Construction & Testing. 2014; 18:55–59.

Safford MM, Allison JJ, Kiefe CI. Patient complexity: More than comorbidity. The vector model of complexity. Journal of General Internal Medicine. 2007; 22:382–390. DOI: 10.1007/s11606-007-0307-0

Saldana, J. The coding manual for qualitative researchers. 2nd. Thousand Oaks, CA: Sage; 2013.

Sandalowski M. Whatever happened to qualitative description? Research in Nursing & Health. 2000; 23:334–340. DOI: 10.1002/1098-240X(200008)23:4<334::AID-NUR9>3.0.CO;2-G [PubMed: 10940958]

Sandelowski M, Barroso J. Motherhood in the context of maternal HIV infection. Research in Nursing and Health. 2003; 26:470–482. DOI: 10.1002/nur.10109 [PubMed: 14689463]

Shacham E, Rosenburg N, Onen NF, Donovan MF, Overton ET. Persistent HIV-related stigma among an outpatient US clinic population. International Journal of STD and AIDS. 2015; 26:243–250. [PubMed: 24828557]

Shi, L., Stevens, GD. Vulnerable populations in the United States. 2nd. San Francisco, CA: Jossey-Bass; 2010.

Smedley BD. The lived experience of race and its health consequences. American Journal of Public Health. 2012; 102:933–935. DOI: 10.2105/AJPH.2011.300643 [PubMed: 22420805]

Stangl AL, Lloyd JK, Brady LM, Holland CE, Baral S. A systematic review of interventions to reduce HIV-related stigma and discrimination from 2002 to 2013: How far have we come? Journal of the International AIDS Society. 2013; 16(Suppl. 2):1–14. DOI: 10.7448/IAS.16.3.18734 [PubMed: 24008177]

United States Census Bureau. How the Census Bureau measures poverty. 2010. Retrieved from http://www.census.gov/topics/income-poverty/poverty/guidance/poverty-measures.html

United States Census Bureau. Section 13. Income, expenditures, poverty, and wealth: Statistical abstract of the United States: 2012. 2012. Retrieved from http://www.census.gov/library/publications/2011/compendia/statab/131ed/income-expenditures-poverty-wealth.html

Virkki T, Husso M, Notko M, Holma J, Laitila A, Mantysaari M. Possibilities for intervention in domestic violence: Frame analysis of health care professionsals' attitudes. Journal of Social Service Research. 2015; 41:16–24. DOI: 10.1080/01488376.2014.917449

Wang C. Photovoice: A participatory action research strategy applied to women's health. Journal of Women's Health. 1999; 8:185–192. DOI: 10.1089/jwh.1999.8.185

Watkins-Hayes C. Sociology of HIV/AIDS: Past, present, and future research directions. Annual Review of Sociology. 2014; 40:431–457. DOI: 10.1146/annurev-soc-071312-145621

Weber, L. Reconstructing the landscape of health disparities research: Promoting dialogue and collaboration between feminist intersectional and biomedical paradigms. In: Schulz, AJ., Mullings, L., editors. Gender, race, class & health. San Fransico, CA: Wiley; 2006. p. 2-59.

Wilson S. "When you have children, you're obliged to live": Motherhood, chronic illness and biographical disruption. Sociology of Health & Illness. 2007; 29:610–626. DOI: 10.1111/j.1467-9566.2007.01008.x [PubMed: 17498171]

Wingood GM, DiClemente RJ, Mikhail I, McCree DH, Davies SL, Hardin JW, Saag M. HIV discrimination and the health of women living with HIV. Women & Health. 2007; 46:99–112. DOI: 10.1300/J013v46n02_07

Woods-Giscombe CL. Superwoman schema: African American women's views on stress, strength, and health. Qualitative Health Research. 2010; 20:668–683. DOI: 10.1177/1049732310361892 [PubMed: 20154298]

Zierler S, Krieger N. Reframing women's risk: Social inequalitites and HIV infection. Annual Review of Public Health. 1997; 18:401–436. DOI: 10.1146/annurev.publhealth.18.1.401

TABLE 1

Content of Interviews

Interview	Data collection	Duration(min)	Timing (weeks)	Example questions/prompts
1	Informed consent process Sociodemographic assessment form Rapport building Describe: photo elicitation goals/procedures Exploration of motherhood and HIV	60–90	Initial	*Please tell me about your experiences of being a mother living with HIV.* *How does being a mother impact your ability to take care of your health and manage your HIV?*
2	Photograph content interview Rapport building	60	6	*How does this [the content of this photograph] relate to your health?* (Wang, 1999) *Why does this situation, concern or strength exist?* (Wang, 1999)
3	Exploration: social/economic complexities of mother's life and impact on health experiences Self-assessment: participant health status Rapport building	60	8	*What goes through your mind when you think about your experience of being a woman living with HIV?* *How do you define health? Based on your own definition, do you consider yourself healthy right now?*

TABLE 2

Example Structural Codes for Social Determinants of Health

Determinant	Valence	Code	Definition[a]	Exemplar quote
Race	Positive	~R	Compared to people of other races, is treated equally as a Black/African American and her race positively impacts her health experiences and/or her health outcomes	*As far as um… African American woman, I can say I'm glad to be who He created me to be*
	Negative	R	Compared to people of other races, is treated unequally as a Black/African American and her race negatively impacts her health experiences and/or health outcomes	*…still a lot of prejudice going on ever though sometimes it's not as visible as it used to be.*
Gender	Positive	~G	Compared to men, is treated equally and her gender positively impacts her health experiences and/or her health outcomes	*I mean, I'm not biased to say that women are stronger than men, but a lot of men take it [HIV] as a negative impact on their life and just, like it's the end of the world…. I'm just strong will power)*
	Negative	G	Compared to men, is treated unequally and her gender negatively impacts her health experiences and/or her health outcomes	*'Cause I feel like being Black it's hard already, that's already one strike and I'm a woman, that's a second. So that's a lot it's like you got to fight your way all the way through…Yeah, you have to fight to keep your place.*
HIV-stigma	Negative	S	Perceives or experiences prejudice, discounting, discrediting or discrimination because people know or believe she has HIV/AIDs	*I still have a stigma about it – so it's hard to go out to the world…. I'm too ashamed or embarrassed.*
Class	Positive	~C	Has material resources needed to both promote and protect her health and the health of her children	*So yeah I think I have the resources that I need to take care of myself pretty well*
	Negative	C	Does not have the material resources needed to both promote and protect her health and/or the health of her children	*Bills can make you sick*
Motherhood	Positive	~M	Relationship she has with her dependent children is positive in nature and positively impacts her overall health	*And having my children were the best thing that could ever happen to me …*
	Negative	M	Relationship she has with her dependent children is negative in nature and negatively impacts her overall health	*Taking care of kids, having kids, having children running around and working…. And I rescheduled, I rescheduled, I rescheduled [doctor appointments].*
Non-determinant		nd	Construct in question (race, class, gender, motherhood or HIV-related stigma) is not a determinant or factor in her health experiences and outcomes	*I feel like if I had the opportunity there would be some stigma there. But I guess I have you know, I haven't- [experienced it].*

Note. AIDS = acquired immune deficiency syndrome; dHIV = human immunodeficiency virus.

[a]All definitions involve participant description as stated.

TABLE 3

Social Location Frame Identification: Cross-Case Comparative Analysis

	Social determinants[a]					
Frame	**Race**	**Class**	**Gender**	**HIV-S**	**Motherhood**	**Health[b]**
Internalized	R	C	G	S	M	+/−
Internalized	R	C	G	S	~M	−
Emancipatory	~R	C	~G	nd	~M	+
Emancipatory	nd	C	~G	nd	~M	+
Emancipatory	nd	nd	~G	nd	~M	+
Maternal	R	C	G	S	~M	+
Maternal	R	C	~G	S	~M	+
Maternal	R	C	G	S	~M	+
Maternal	R	~C	~G	S	~M	+
Maternal	R	C	G	S	~M	+
Maternal	nd	C	nd	S	~M	+
Maternal	R	C	G	nd	~M	+
Maternal	nd	~C	G	S	~M	+
Maternal	nd	nd	nd	nd	~M	+

Note. n = 14. C = class; G = gender; HIV = human immunodeficiency virus; HIV-S = HIV-related stigma; M = motherhood; nd = nondeterminant; R = race;

[a]Codes preceded by ~ indicate strength; codes without ~ indicate vulnerability.

[b]+ indicates positive health self-assessment; − indicates negative health self-assessment; +/− indicates equivocal health self-assessment.

TABLE 4

Exemplar Quotes for Frames and Health Self-Assessment

Frame[a]	Exemplar quote
Emancipatory[b]	I'm healthy, I'm able to work, I am going back to school shortly, ready to graduate from college. It [HIV] is not a setback or a downfall to me. It is just something I got dealt. …I basically just don't even try to put my race being a issue. Being a woman is not an issue. What other people will say is not an issue…
Maternal[c]	But, as I explained earlier, he [her son] is the one that I was pregnant with when I was diagnosed the first time and he's the reason I live. And he's the reason I'm undetectable now. [i.e. her HIV viral load is undetectable]. But I feel I need to be around as long as I can so she can at least know me. So I can show her and teach her what I do know, you know, and we can learn some things together, you know.
Internalized[d]	I keep a lot in. Sometimes you talk to your family, they don't understand. I rather go out and talk to [healthcare worker], my mental health doctor, my case manager. I call them 'cause when I talk with my family they always give me negative feedback, but I'll ask them to just listen. I don't want no feedback, 'Just listen so I can get this out.' I just have a taboo, about going to clinics and stuff…and confidentiality that's a big thing for me. And the way people still treat. Because if you're listening to people and they talk not knowing who is and who isn't [living with HIV]. It's just like, 'you're rude, you don't even know…you don't even know anything…"
Health	
Positive	In response to whether she considers herself healthy based the definition of health she has given] Yes. 'Cause I'm doing what I'm suppose to do, like I should do.
Negative	[In response to whether she considers herself healthy based the definition of health she has given] No, I can't do the normal things I want to do…So, I'm not normal and it stresses me out. And it stresses me out that I see people do normal things and I can't do. It just stresses me out.

[a]Based on primary moral or normative concern.

[b]Transcending oppressive discourses.

[c]Maintaining positive maternal identity and maternal-child relations.

[d]Normality in one's social context [which notably emphasizes the dominant values of white, middle class mothers *not* living with HIV].