RE-EXAMINING HEALTH DISPARITIES AMONG AFRICAN AMERICAN WOMEN:

IMPLICATIONS FOR STRESS-COPING BEHAVIORS AND ROLE RESPONSIBILITIES

IN THE LIVES OF AFRICAN AMERICAN MOTHERS

by

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(Under the Direction of Velma McBride Murry)

ABSTRACT

The effects of stressor pile-up, stress-coping behaviors, and role responsibilities on mental and physical health functioning were examined among 747 African American mothers. Using the Mundane Extreme Environmental Stress (MEES) model of Family Stress theory, Black Feminist theory, and Symbolic Interaction theory, direct effects of stressor pile-up and indirect effects of stress-coping behaviors and role responsibilities were tested. Hypotheses were supported. Increased stressor pile-up was directly associated with compromised mental health, and in turn, lowered physical health. Lowered stress-coping behaviors and compromised role responsibilities mediated the link between stressor pile-up and mental health functioning, which in turn negatively influenced African American mothers' physical health functioning. The association between stressor pile-up and role responsibilities was stronger for women who employed fewer problem-solving strategies and perceived less control over their lives. Group differences emerged as well. In comparison to mothers rearing children alone, alternative models indicated that the influence of stress-coping behaviors on mental health functioning was most salient for mothers who reared children with a romantic partner or spouse. These results provide an empirical basis

for understanding the extent to which African American women's daily role responsibilities and

reactions to stress mitigate their health. Future studies should consider examining the

multidimensionality of African American women's roles, particularly their perceptions of the

execution and quality of these roles, as it relates to their health functioning.

INDEX WORDS: African American women, mental health, physical health, role
       responsibilities

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DEDICATION

This document is dedicated to every woman who, through hell or high water, still manages to attain her dreams no matter what. It is my hope that the efforts put forth in these pages can be drawn upon as strength and encouragement for all those who follow behind and alongside me.

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CHAPTER I

INTRODUCTION

Despite national efforts to decrease health disparities among women of color, the prevalence of chronic illnesses, related complications, and subsequent deaths among African American women continue to increase dramatically. While several studies have implicated personal and contextual stressors as contributors to African American women's compromised health, few have established the extent to which African American women's management of stressors, particularly their coping behaviors, mediate the effect of stressors on women's health functioning. Additionally, current models designed to address health disparities have not considered the implications of African American women's multiple role responsibilities in combination with social and personal stressors that may also contribute to their compromised health outcomes. Therefore, the purpose of the present study was to test a heuristic model that links African American women's stress management strategies, as well as fulfillment of multiple role responsibilities, to their mental and physical health functioning outcomes. The purposed study may extend research on women's health by exploring the complex avenues that may contribute to health compromising or health enhancing behaviors of African American women, as well as identifying protective processes that can inform preventive interventions aimed to promote positive health outcomes among African American women.

The current study is of particular importance as health statistics consistently show that, across all age groups, African American women experience more complications associated with chronic diseases than do White women. For example, compared with White women, African American women are twice as likely to develop hypertension, kidney disorders, and diabetes mellitus (Krieger, Rowley, Herman, Avery, & Phillips, 1993). Among women with diabetes, African Americans are more likely than Whites to become blind, to have amputations, and to develop end-stage kidney disease as a consequence of the illness (Murry et al., 2003; Office of Research on Women's Health, 1998). Further, the Centers for Disease Control and Prevention (CDC) reported in 2002 that the leading causes of death among women were heart disease (365,953), cancer (267,009), and strokes (102,892); African American women were more likely than those in any other ethnic group to die from these diseases (CDC, 2002). Racial discrepancies in mental health functioning are similar to those for physical health; African American women tend to experience depression and anxiety at higher rates than do White women (Adams, Hendershot, & Marano, 1996; Murphy, 1998).

Although these discrepancies have been documented, it remains unclear *why* African American women are at greater risk than White women for poor health functioning. Two suggested schools of thought, one driven by socio-structural factors and the other a conglomerate of factors linked to health knowledge, program development, and cultural awareness, appear to shape the discussion explaining African American women's health outcomes. Social stressors, such as poverty and racism, have been implicated as major contributors to poor health functioning among African American women (Black & Murry, 2003; Gibbs & Fuery, 1994; V. M. Murry et al., 2003; Schulz,

Parker, Israel, & Fisher, 2001; D. R. Williams, 2002). Stressors associated with poverty, unemployment, and low educational attainment have been linked with heightened risk for depression among African American women because of their disproportionate experience with these social and economic circumstances (Black, 2003; Brown, Brody, & Stoneman, 2000; McGrath, Keita, & Stricklan, 1990). In combination with racial discriminatory experiences, the stress induced by these challenging circumstances have been associated with various physical health issues, elevated blood pressure, activation of autonomic functioning, and vulnerability to arteriosclerosis, for example, as well as compromised mental health and general dissatisfaction with life among African American adults (Schultz, et al., 2000). The second school of thought suggests that African American women's compromised health can be linked with limited knowledge of disease prevention and management, the absence of culturally-inclusive health promotion programs, and poor communication between health care providers and their African American patients (Auslander, Haire-Joshu, Houston, Rhee, & Williams, 2002; Bushy, 1998; F. M. Jackson, 2002; Melkus et al., 2004; Samuel-Hodge et al., 2000). Despite these explanations, however, there is a paucity of empirical evidence to guide conceptual models that allow for the inclusion of African American women's daily life management issues, stress-coping behaviors and role responsibilities in particular, that may implicate their compromised health functioning. Morever, little attention is given to the sociohistorical and cultural context in which African American women's multiple role responsibilities occur, which in turn, overlooks the unique racialized and gendered framework from which their expectations for role fulfillment and daily functioning emerge.

The present study was designed to fill these gaps by describing the extent to which African American women's stress-coping behaviors, as well as their concurrent role responsibilities, contribute to their health functioning. A plethora of descriptive, correlational studies have substantiated the influence of stressors on the health functioning of African American women (Amankwaa, 2003; Schulz et al., 2001; D. R. Williams, 2002). The present study, however, extended these findings by testing direct, mediation, and moderation models to examine the causal linkages among stressor pile-up (e.g. financial strain and role strain), racial discrimination, stress-coping, role responsibilities, and African American women's mental and physical health functioning. Consideration was first given to testing a direct path to assess the influence of stressor pile-up on mental and physical health functioning (see Figure 1). Next, a mediational path tested the extent to which stressor pile up was associated with psychological and physical health functioning through stress-coping behaviors. A second mediational path tested the association between stressor pile up and psychological and physical health outcomes through multiple role responsibilities. Figure 2 illustrates the proposed moderation effect, in which it was hypothesized that the path between stressor pile up and multiple role responsibilities would have greater negative consequences for women who engaged in high levels of reactive coping (e.g., excessive problem-solving and heightened perception of of control) and for those who experienced high levels of racial discrimination. The moderation effect of stress-coping on role responsibilities challenged the premise that women who maintain several roles simultaneously tend to have enhanced levels of psychological and physical health functioning (Herrera, 1995; Waldron, Weiss, & Hughes, 1998) and tested a path that suggests that women who

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demonstrate ineffective coping strategies may feel compromised in their ability to fulfill

multiple roles, which in turn evinces negative consequences for their health functioning

(P. B. Jackson & Mustillo, 2001). In addition, because African American women must

additionally manage their lives within a racist society, the present study examined the

extent to which experiences with racial discrimination amplified the influence of existing

stressors on their role responsibilities. Finally, in efforts to examine the proposed

relationships among a sample of multiple-role African American, the current study

focused specifically on African American mothers, with particular emphasis on the

additive effect of their role responsibilities when they were also involved in community

organizations and activities. The following chapter presents the theoretical and empirical

studies that guided the conceptual model's design and data analyses, including a detailed

discussion of the selection and integration process for popular and scholarly sources that

informed the review.
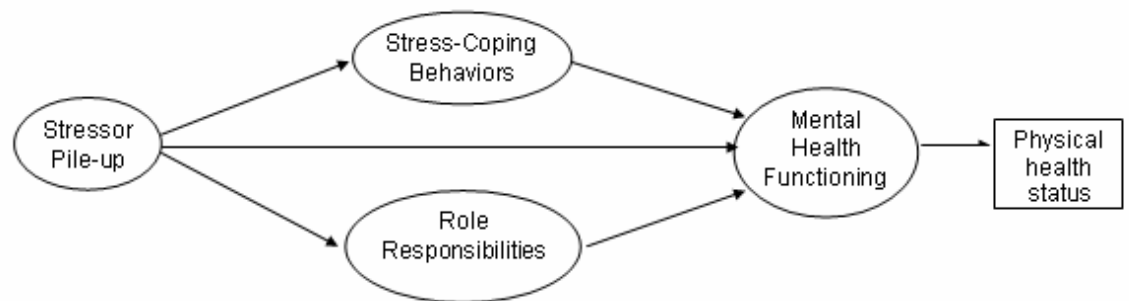
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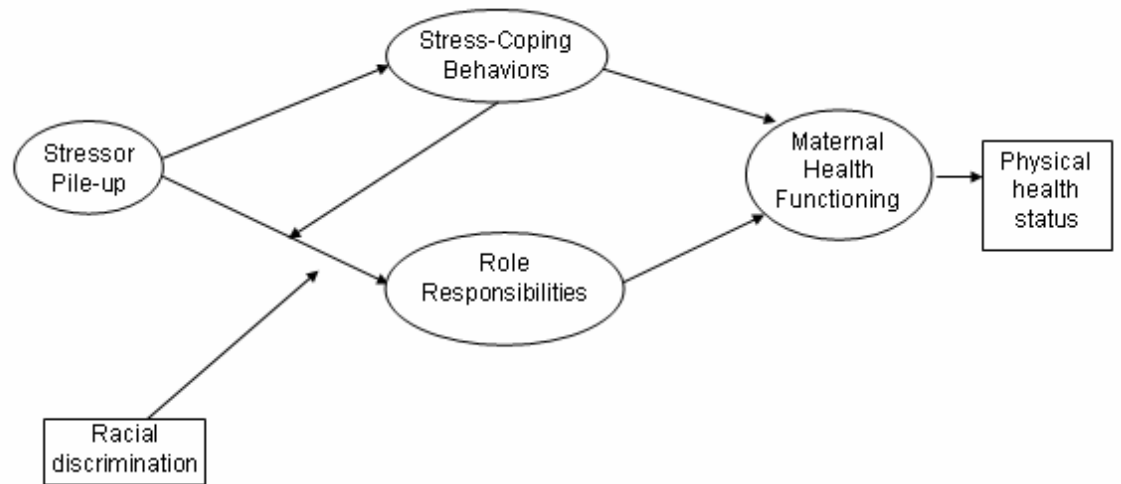
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CHAPTER II

LITERATURE REVIEW

This chapter presents the theoretical and empirical studies that guided the design of the conceptual model and informed the data analyses. I begin this chapter by briefly describing the challenges associated with locating bodies of empirical research studies that would inform the development of a conceptual model to explain the processes through which stressors, multiple role responsibilities, and stress coping behaviors are linked with African American mothers' physical and psychological health functioning. Next, the utility of merging empirical and popular literatures in designing models to investigate the every day life experiences of African American mothers is offered, followed by an overview of the scope of the methodology used to conduct this literature review process. After providing this information, relative empirical studies and popular writings were used to design a heuristic model to guide the current investigation. In the final section of this chapter a summary of the conceptualized models and justification for the predicted links are discussed. In the next section, a brief overview of the usefulness of popular literature in depicting the story and everyday life experiences of African American women is provided.

Filling the Gaps with Popular Literature

To begin exploring linkages among multiple role fulfillment, stress-coping, and African American women's compromised health outcomes, I first decided to locate empirical studies that enlisted the use of theoretical frameworks and a variety of

methodological approaches from which to understand this phenomenon. While several bodies of literature explained linkages among stressors (e.g., work stress, family stress, relationship stress, financial strain, etc.) and health in women, locating empirical articles that detailed the extent to which multiple role women, particularly women of color, manage their roles amidst existing stressors was challenging. First, it was apparent, based on this extensive review, that limited attempts have been undertaken to examine the pathways through which women's role demands forecast compromised health functioning. Further, available studies that have focused on women and role functioning have centered around explaining ways in which balancing work and family occasions compromised mental health status. A second noteworthy finding was that the few studies that did examine women's multiple role fulfillment and health, relied primarily on data obtained from middle-class European American women. Thus, studies examining this phenomenon among non-European American women were non-existent. A third conclusion based on this comprehensive literature review revealed that few studies considered the extent to which role expectations, particularly culturally-bound role expectations, may create an additional layer of stress for some groups of women to further compromise their health functioning outcomes. In fact, this oversight suggested that empirical examinations of women's role fulfillment were not only devoid of social context, but that variations in role fulfillment as a function of sociocultural differences was under-considered.

To combat these challenges, it became necessary to explore other avenues to inform the conceptualization of a model linking women's roles, social and familial stressors, and health functioning. Given that a central focus of women's magazines is to

reflect the everyday life experiences of female readers, I sought to extend the empirical

work on work/family and women's health by consulting popular culture literature,

specifically African American women's magazines. The goal of this approach was to use

sources that represented common concerns, experiences, and life management issues of

African American women involved in multiple roles to further inform existing theoretical

studies and empirical investigations detailing women's daily functioning. To this end, the

popular sources offered unique qualifications to the theoretical and conceptual models

discussed in the empirical studies. Aggregating findings from both empirical studies and

popular literature, afforded the opportunity to develop a richly informed heuristic model,

illustrating the process through which multiple role fulfillment and stress-coping

behaviors contribute to African American women's health outcomes (see Figures 1 and

2). Classic texts detailing African American family dynamics, as well as the salience of

women's roles in these families, are also incorporated to best explain the sociohistorical

and cultural context in which African American women's role fulfillment and daily

functioning occurs (Billingsley, 1968; Ladner, 1971; Stevenson, 1992; Tanner, 1974). A

detailed overview of the procedures undertaken to launch this integrated literature review

is provided in the following section.

Methodology for Locating and Integrating Scholarly Studies and Popular Literature

As previously noted, the overall aim of the literature search was to identify

refereed and non-referred articles that examined African American women's health

functioning in relation to the following issues: 1) the types of stress-coping behaviors

enlisted to manage stressors and/or stressor pile-up, 2) the challenges of multiple role

performance (as well as responsibilities germane to multiple role fulfillment), and 3) the

expectations shaping stress-coping behaviors and multiple role performance in the lives of African American women. To launch the search, specific terms and keywords related to stress-coping behaviors were utilized (e.g., stress management, coping, coping and health, life management, etc.). Similar key words were employed to identify articles regarding role performance issues (e.g., multiple role performance, multiple role women, dual career women, family-work conflict, social roles, social roles and health), and expectations for these behaviors (e.g. gender roles, gender role beliefs, gender socialization, etc.), respectively. These terms were entered into PsycINFO, Academic Search Premier, Medline, and the EBSCOhost Social and Behavioral Sciences databases. The reference lists of various articles selected were also reviewed, and those articles that were not found in the database search were included. An important caveat should be noted, namely, the use of colloquialisms and jargon as alternate search terms that also guided the selection of various articles. For example, the word "superwoman" was searched (e.g. superwoman syndrome, superwoman functioning, etc.) as an alternative to "multiple roles", as well as the colloquialism "strong Black woman" (Beauboeuf-LaFontant, 2005; Collins, 2000; Harris, 1995; Morgan, 1999; Randolph, 1997; Wallace, 1990; T. Williams, 2005). Similarly, to narrow the search by race and gender, the selected terms were often paired with specific terms such as "African American woman" "black woman" "black and woman" "black and mothers", etc.

Two categories of articles were formed among approximately 100 emerging from this search: scholarly sources (e.g. empirical, theoretical, and conceptual articles) and popular sources, specifically women's magazine articles. Scholarly sources comprised the majority, while popular sources (N = 17) comprised the minority. Scholarly articles

were retained that offered theoretical and empirically-based explanations for linkages among role fulfillment and health (e.g. role strain, role management, role behaviors), social roles and health, as well as a variety of implications for social and contextual stressors on health. Women's magazine articles were retained that met the following criteria: African American female readership magazines (e.g., Essence, Hear & Soul, Ebony); articles referencing role responsibilities, particularly those implicitly or explicitly stating expectations of strength (e.g., "superwoman", "strong Black woman", "strength and Black women", "superwoman syndrome", etc.) in reference to role responsibilities, role performance, and stress-coping; and the discussion of health consequences related to performing as a superwoman or strong Black woman in their multiple roles. These criteria resulted in the inclusion of 6-8 magazine articles from Black women's magazines and approximately 50-60 resources from scholarly sources. Together these sources served as the literature pool that informed the framework for the mediation and moderation models tested in the current study. To launch this investigation, an overview of the theories and models that appear to frame the larger discussion in relation to women's health, multiple roles, stressors, and coping is presented first. Second, to further explain the implications for stress-coping behaviors and multiple role fulfillment in the lives of African American women, an interdisciplinary, culturally-inclusive theoretical framework is discussed. This theoretical framework, in turn, served as the basis for the discussion of the selected scholarly and popular writings used to inform a heuristic model and testable hypotheses illustrated in Figures 1 and 2. .

Guiding Theoretical Frameworks

The existing literature dealing with women's role identities, stress-coping behaviors, and role performance is based on three main theories: identity theory (Burke, 1991; Stets & Burke, 2000), role strain theory (Goode, 1960), and stress theory (Pearlin & Lieberman, 1979; Pearlin, Menaghan, Liberman, & Mullan, 1981). Role identity theory suggests that at the core of an individual is a role or roles carrying particular behaviors, expectations, and symbolic meanings (McCall & Simmons, 1978; Stets & Burke, 2000). According to role strain theory, women who attempt to fulfill multiple roles simultaneously must manage the competing expectations and tasks inherent to each role as suggested by role identity theory; this can result in role conflict leading to role strain (Goode, 1960). Pearlin and associates (1979, 1981) suggested that the stress and strain emerging from this role fulfillment process is further exacerbated as acute or chronic stressful life events occur; creating stressor pile-up that has the potential to impede role performance.

Developing a Culturally Relevant Conceptual Framework

Although the aforementioned framework provides insight on the ways in which women manage their lives while performing in their roles, it overlooks the context in which this role performance occurs, particularly in the lives of women of color. Moreover, few studies examine the extent to which cultural role expectations salient to a sociohistorical and cultural context of African American womanhood influence stress-coping, role performance, and, ultimately, health functioning. Therefore, based on the explanations and particular focus on processes, a modified version of the family stress model, Mundane Extreme Environmental Stress (MEES) model (Peters & Massey,

1983), Black Feminist Theory (Collins, 2000; King, 1978), and Symbolic Interaction Theory (Burr, Leigh, Day, & Constantine, 1979; Klein & White, 1996; LaRossa & Reitzes, 1993) served as the overarching frameworks for around which the present review is organized and on which the proposed heuristic model is based (see Figures 1 and 2). These theoretical/conceptual frameworks were selected because they have heuristic value for the study of African American women nested in families. They incorporate social contextual variables that have implications for understanding the extent to which the sociohistorical and cultural contexts of African American womanhood influence contemporary role identities, as well as influences on stress-coping behaviors, role performance, and ultimately health functioning. Moreover, although African Americans' everyday life experiences cannot be understood adequately without systematically assessing the interrelationships between families and other social systems, empirical studies of these dynamics are rare. Most do not acknowledge the daily hassles associated with being Black in America (Murry, 2000; Murry, Bynum, Brody, Willert & Stephens, 2001). The MEES model incorporates the unique stressors that African American families face due to institutional racism and racially discriminatory experiences. Because the MEES model does not consider the influence of gender or social class in explaining exposure to prejudice and discrimination, Black Feminist Theory was included. According to this perspective, the interlocking oppressions directed at African American women because of their class, race, and gender are inseparable (Collins, 2000). Rather than examining African American women's experiential development in reference to either racism, classism, or sexism alone, Black Feminist Theory maintains that all three sources of oppression combine to produce a conglomerate of stressors that is linked

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directly to the social position and functioning of African American women in the United States. Black Feminist Theory also supports a woman-centered investigation of African American families and communities by highlighting the significance of women's roles within them. Finally, to clarify the unique sociohistorical and cultural symbolism inherent in African American women's roles, Symbolic Interaction Theory was selected. This theory explains the ways in which humans, through interactive, interdependent processes, create symbolic worlds that shape their behavior (LaRossa & Reitzes, 1993). In this paper, Symbolic Interaction Theory will be used specifically to deconstruct African American women's contemporary roles by highlighting the cultural images and archetypes on which they are based, particularly the strong Black woman and the superwoman, and the extent to which these images influence individual role identity (Klein & White, 1996). In combination, these frameworks create a unique representation of role performance that includes African American women in general, and the processes through which their role identity, stress-coping behaviors, and role performance influence their health functioning, in particular. An illustration of how these constructs are useful in explaining this phenomenon is presented in Figure 1 and 2 below.
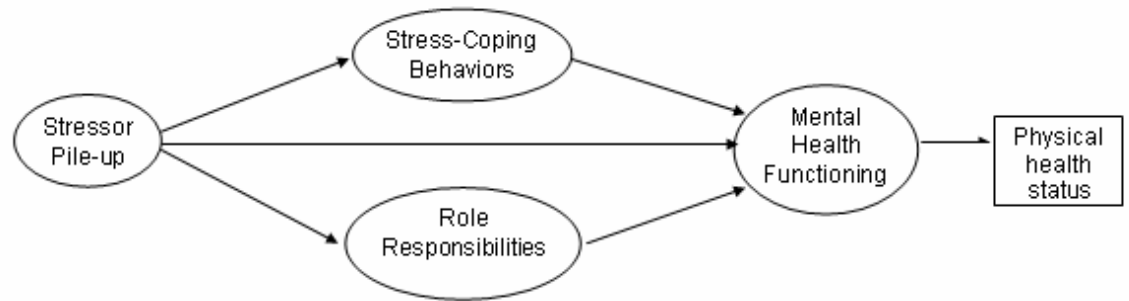
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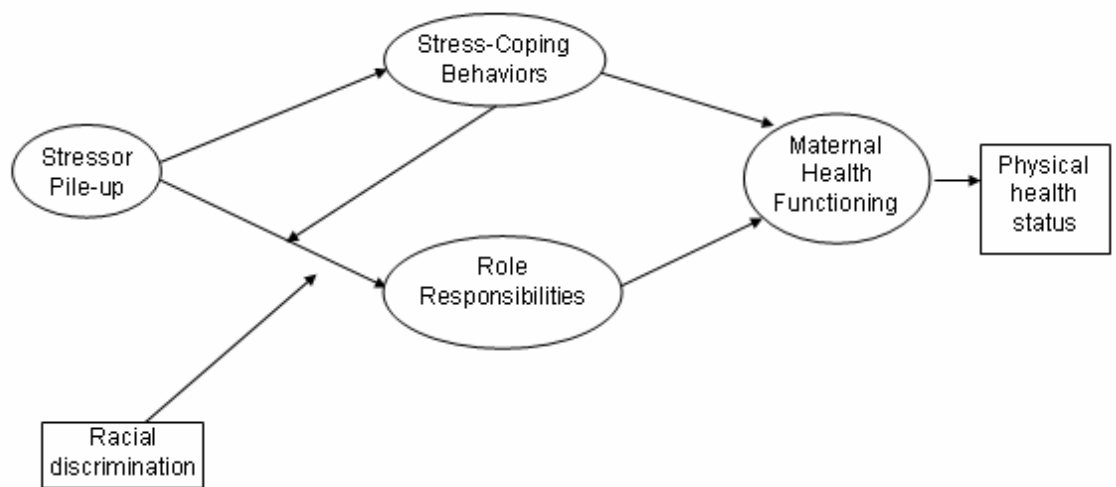
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Sociohistorical and Cultural Context of Womanhood

To explain the role expectations and role demands salient to the sociohistorical and cultural context of African American womanhood, a brief review is needed of unique historical linkages and cultural symbolism of women's roles within African American families and communities. Three complimentary approaches will be used. First, a sociohistorical illustration will be executed to detail the role responsibilities, as well as their significance, across time and history for women in African, enslaved, and modern societies. Second, a cultural framework will be established to explain how kinship bonds in African and African American families further reinforce the maternal role for women. Third, cultural images and archetypes, specifically the superwoman and the strong Black woman, will be used from a symbolic interactionist perspective to deconstruct the cultural messages shaping role functioning and role expectations for African American women in contemporary society. In sum, these approaches will best represent the unique social context of African American womanhood while providing insight into the linkages between this context and African American women's contemporary development of role identities. Implications for influences on stress-coping behaviors and role performance follow.

Sociohistorical and Cultural Context of Women's Roles

The sociohistorical and cultural context of African American womanhood has been defined by the roles of mother and economic provider in African, enslaved, and modern society. Prior to enslavement, women in various West African tribes were responsible for their communities' economic well-being as well as for childrearing (Ladner, 1971). Regarded as savvy traders who often spearheaded important commodity

bartering, West African women were key contributors to their tribes' support (Ladner, 1971). The role of mother was so highly valued that Ashanti women, for example, who bore numerous children were often accorded very high status in their tribe (Ladner, 1971).

As Africans were enslaved in America, economic production, childbearing, and childrearing continued to define women's roles (Ladner, 1971; Stevenson, 1992). However, this role definition was quite different than that of White women in the New World,

> From the outset, an African American woman's role in American society was synonymous with labor outside the home. This distinguished her from her White counterparts. For the most part in American society, traditional gender-role stereotypes resulted in social conventions that prohibited females from any forms of labor that were routine for males. This courteous protection of femininity was not, however, extended to African American women…For the most part they worked in fields alongside African American males or performed any other manual
>
> labor required by slavemasters (Greene, 1994).

Stevenson's (1992) examination of enslaved Virginia families from the early to mid-1800s support this observation, contending that enslaved women were subjected to the same arduous labor and routine physical abuse as were enslaved men, yet were additionally expected to fulfill the role of caregiver to all enslaved children regardless of biological lineage. Not only were enslaved mothers responsible for their own children, but older enslaved women were mandated to become "other-mothers" for children

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deprived of their parents when the parents were sold (Collins, 2000; Stevenson, 1992). This caregiver role was particularly salient, given that slaveholders consistently prevented enslaved fathers from being involved with their families in any way. "Thus, while slave fathers had a significant presence in the consciousness of their children, mothers obviously were much more physically and psychologically present in their children's lives." (Stevenson, 1992, p. 108).

African American women's roles since enslavement continue to include provider and caregiver, yet have broadened beyond domestic labor positions into a variety of professional roles (Jones & Shorter-Gooden, 2003). Jones and Shorter-Gooden (2003) suggest that the act of "shifting" renders these multiple responsibilities even more challenging. They define shifting as multiple task management that further involves "[a] shift to accommodate differences in class as well as gender and ethnicity…[to] change outward behavior, attitude, or tone…shifting 'White' then shifting 'Black' again, shifting 'corporate', shifting 'cool'" (p. 7) as a means of multiple role management . In sum, Jones et al. (2003) propose that in their efforts to continue excessive role performance throughout history and across a variety of contexts, African American women have had to undergo unrelenting transitions in demeanor, behavior, and affect.

In contrast to social historians' perspectives, anthropologists suggest that the centrality of women's roles within African American communities and families is a reflection of matrifocal kinship bonds present within African and African American cultures (Stevenson, 1992; Tanner, 1974). Tanner (1974) defines matrifocality as "1) *kinship* systems in which a) the role of the mother is structurally, culturally, and affectively central and b) this multidimensionality is legitimate; and 2) the *societies* in

which these features coexist, where a) the relationship between the sexes is relatively egalitarian and b) both women and men are important actors in the economic and ritual spheres" (p. 131). Specifically, matrifocality emphasizes structural significance, the extent to which mothers have input on economic, political, or other family management issues (Tanner, 1974). Tanner further contends that, in this context, flexible kin roles afford women significance similar to that of a mother figure. For example, African American intimate dyads and dual-headed families are often regarded as egalitarian such that a woman's input and support is of equal importance to that of the man (Cherlin, 2000; McLoyd, Cauce, Takeuchi, & Wilson, 2000). In this way, the decision-making power associated with motherhood and womanhood is not mutually exclusive. Secondly, matrifocality highlights cultural significance, the extent to which a high value is placed on the mother role which determines the roles to which young girls are socialized to aspire (Tanner, 1974). African American womanhood, often marked by the transition to motherhood (Collins, 2000), includes "images of the self appropriate to an active, decisive, *strong* central kin role" (Ladner, 1971). In turn, African American adolescent girls are socialized to look upon African American womanhood, including motherhood, with reverence (Ladner, 1971; Wells, 2003). Finally, affective significance, or the emotional bond between mother and child within the family, have been discussed as part of several studies of African American families (Billingsley, 1968; Hill, 1971; Stevenson, 1992). These constructs distinguish matrifocality from alternate descriptions of African American family form, such as the consanguineal household (in which individuals are related by blood, typically through the mother) and the female-headed household (defined by the absence of a man from the home), which focus on composition and structure alone

(Tanner, 1974). Tanner further distinguishes matrifocal communities from matriarchal societies, another common misconception of African American families, suggesting that truly matriarchal societies in which women control politics and economics do not exist anywhere in the world. Matrifocality can occur within nuclear families, extended families, and single-mother-headed families that are embedded in patriarchal societies (Tanner, 1974).

Cultural Images/archetypes and Women's Roles

Whereas a sociohistorical and cultural framework of African American womanhood provides insight into role responsibilities and their cultural significance, investigation of the ways in which expectations for role functioning and role performance are communicated to African American women adds another dimension to the understanding of these roles. Some characteristics are represented in images revered as positive stereotypes of African American womanhood: the superwoman and strong Black woman. This analysis informs the following section.

Pivotal work on African American womanhood suggests that African American women are expected to be strong and highly competent. As Ladner (1971) stated,

The strongest conception of womanhood that exists among all preadult females is that of how the woman has to take a strong role in the family…All of these girls had been exposed to women who played central roles in their households…The symbol of the resourceful woman becomes an influential model in their lives…Most of the girls viewed the duties of the woman as those associated with keeping the home intact…They expressed strong admiration for their mothers and other women they knew who had to accept these heavy responsibilities, but in a

non-romantic way because to them it was a way of life…In sum, women were expected to be strong, and parents socialized their daughters with this intention (pp. 127, 131).

Collins (1991) agrees with Ladner, and suggests that, within their culture, African American women are expected to be superwomen, relentlessly caring, nurturing, and giving for the sake of the family. Greene (1994) perceives this expectation as the blueprint for African American women's daily functioning: to be the "ubiquitous strong matriarch" (p. 21), fulfilling the role of laborious, resilient supporter of the family. These reflections of strength, and manifestations thereof, are more concisely described as the cultural archetypes of the superwoman and the strong Black woman who strive to persevere regardless of the gravity of life's hardships (Greenwood, 2001/2002; Randolph, 1997; T. Williams, 2005). Reflections of these archetypes are particularly salient in African American fiction, biographies, and other media (Harris, 1995, 2001; Harris-Lacewell, 2001). A less explored powerful medium for socialization and exposure to these images is popular culture magazines, in particular African American women's magazines. In these publications African American women are depicted as invulnerable.

The strong Black woman syndrome that Greenwood (2001/2002) described in Heart & Soul magazine suggests that African American women display an inherent strength that positions them as "the pillars of the family, the church, the community." (p. 32). This highly regarded social role also implies that African American women possess internal characteristics that make them impervious to life's stresses and strains (Nelson, 1995; Randolph, 1997; Roan, 2003; T. Williams, 2005). For example, the "myth of the Invincible Sister," as discussed in Ebony magazine, suggests that African American

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women display a sense of dependability and resilience that is highly valued in their communities, "the sister others called on to handle the details." This notion was reinforced in Essence magazine, as the success of African American women was attributed to their having "made it" despite the stressors in their lives (Randolph, 1997; T. Williams, 2005). Although these women are admired and regarded as role models in their communities, articles in Essence and Ebony also suggested that African American women performing the superwoman or strong Black woman role may have little opportunity to acknowledge their own vulnerability, even when hiding it proves costly to their health (Randolph, 1997; T. Williams, 2005). For example, an article titled "Strong Black Woman Blues" featured in Ebony described the "game face," or the act of appearing poised while under pressure, a coping strategy that may mask emotional distress that is manifested in unhealthful behaviors such as overeating, excessive sleeping, or becoming heavily involved in work (Randolph, 1997). In combination, these behaviors distract African American women from the emotional consequences of their functioning as strong Black women. Randolph (1999) also states that maintaining the game face provides African American superwomen with a false sense of security by allowing them to continue to "move too fast to notice" how stressors are affecting their quality of life. This behavioral mechanism, in turn, provides African American superwomen little time to decompress from the emotional toll of maintaining their untenable position (T. Williams, 2005). Taken together, these sources suggest that African American women performing multiple roles are bound by cultural expectations of strength and resilience that do not take into consideration the gravity of the responsibilities confronting them daily. Randolph (1999) comments on the inherent

paradox in this concept of strength: "we can't figure out how we should view strength- as a friend or enemy, an asset or liability.. we don't know if we should crave it or curse it" (p. 18).

Role identity

While the superwoman and strong Black woman images have been discussed in terms of their salience within African American culture, generally, and the symbolic and historical linkages to African American womanhood in particular, we still know little about the precise mechanisms through which these archetypes influence African American women's contemporary role identities. Several notions, particularly those emerging from African American women's magazines, are worthy of consideration (Crute, 2000; Greenwood, 2001/2002; Nelson, 1995; Randolph, 1997; Roan, 2003; S.C., 2002; Weathers, 1998; T. Williams, 2005). Some articles suggest that African American women internalize virtues of the superwoman and strong Black woman because they endorse the notion that they are direct descendents of a legacy of strength (Randolph, 1997; Roan, 2003). To the extent that women acknowledge that their ancestors persevered during harrowing circumstances, African American women may impose similar expectations on themselves. Still, other articles reflect the social conditioning of African American women, contending that they have been reared in environments where other African American women model superwoman behavior, communicate to them directly that Black women are expected to be strong, or, in common cases, have received affirmation for demonstrating superwoman behaviors in their own lives, "When I am running around the house like a crazy woman taking care of the job, the house, and the

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kids, everyone tells me what a strong Sister I am and how much they admire my strength" (Crute, 2000; Nelson, 1995; Randolph, 1997; Weathers, 1998).

To this end, some theorists suggest that the superwoman and strong Black woman image may actually be proscribed social roles (Stets & Burke, 2000) that influence role identity, while others assert that these archetypes are three dimensional scripts (Stephens & Phillips, 2003, 2005) that act as blueprints from which African American women base their self-concept, affect, and behaviors. For example, the pivotal work of Stephens and Phillips (2003, 2005) maintain that adolescent African American women's sexual identity is based on the premise that messages for sexual behavior and beliefs are filtered through a cultural context, shaped by gender and race that in turn, create sexual scripts. These scripts then inform behaviors, for examples, such as sexual engagement and sexual risk taking.

The work of Stets and Burke (2000) however suggest that social categories are defined by proscribed social roles that dictate behaviors, attitudes, beliefs, and norms for its group members. As members of African American communities, social roles for women may be reflective of the superwoman and strong Black woman archetype: resilient survivors who never get overwhelmed. A personal identity is formed as individuals actively internalize proscribed social characteristics that parallel their personal beliefs.

Taken together, these conceptual models suggest that messages for identity development may be perceived through cultural filters specific to race and gender, which in turn must be weighed against personal beliefs before becoming part of one's personal identity. Hence, these proposed perspectives will aid in explaining the extent to which role identity

forecasts stress-coping behaviors, as well as role performance, to influence health

functioning outcomes of African American women.

Stress-coping Behaviors

While negotiating cultural images and personal beliefs linked to their role

identity, African American women are confronted by a number of ubiquitous and unique

stressors, role strain, financial strain, and racial discrimination in particular. To the extent

that African American women identify with the superwoman/strong Black woman social

identity, they may also create a "bear all burdens" internal working model of stress-

coping in response to existing demands. This process has implications for African

American women's health. One such stressor is role strain between the conflicting

demands of work and family obligations. Flexible kinship roles as well as a sense of

communal responsibility may provide African American women with heightened role

responsibilities, thus increasing their susceptibility to role strain (Dilworth-Anderson,

Williams, & Gibson, 2002). While mainstream literature identifies *active* coping as a

response to stressors that entails problem solving, renegotiating role demands, or seeking

out assistance from others, the present study sought to understand the salience of

reactive coping among African American mothers. As defined by Polasky and associates

(1998), reactive coping is the extent to which multiple role women frequently indulge in

excessive management of competing responsibilities and stressors as a means of

problem-solving. While enlisting this strategy may appear to be an adaptive response to

stressors, excessive problem management that precludes the enlistment of additional

assistance or role negotiation may reify the problem of role strain, resulting in role

overload that is unchanged (Polasky & Holahan, 1998). As a result, multiple role women

who resort to reactive coping may additionally be increasing the likelihood that they will experience distress again (Polasky & Holahan, 1998). Though not empirically tested, this phenomenon may be particularly salient among African American who endorse and internalize resilient, self-sacrificing caregiving as a salient component of their role identities (Collins, 2000; Greene, 1994; Morgan, 1999; S.C., 2002; Shaevitz, 1984; Wallace, 1990; T. Williams, 2005). To the extent that African American women who identify as "superstrong" caretakers and community members resort to reactive coping strategies in an attempt to meet the demands of all competing roles, they may also be placing themselves at greater risk for feeling overwhelmed and stressed by this process (Hellelgarn et al., 1991; Marks & MacDermid, 1996; Naerde, Tambs, Mathiesen, Dalgard, & Samuelsen, 2000). Moreover, reactive coping that results in increased psychological distress and impaired psychological functioning may compromise African American women's health by undermining their ability to regulate their own health maintenance and to seek medical assistant when ill (Balog et al., 2003; Fincham & Bradbury, 1993; Kerns, 1984).

As African American women manage the work and family demands, they must also cope with the consequences of limited financial resources. Financial strain, or "the pressure felt when income fails to cover expenses and the family is unable to make ends meet" (Elder, Conger, Foster, & Ardelt, 1992, p. 10), may be particularly more prevalent among African American women as income restrictions result from their double minority status in work environments. African American women earn less income than African men, and European American men and women, and are overrepresented among unskilled labor positions held by women (Collins, 1991). In response to stressors, residual

influences of the superwoman/strong Black woman social characteristics may emerge, such that those women whose personal identities resonates with strength and survivorship during challenging circumstance may enact persistent and unrelenting problem-solving strategies as a means of stress-coping. To the extent that this strategy fails to meet their families needs, these women may in turn question their self-efficacy in family management and feel that they cannot control circumstances that threaten family stability (P. B. Jackson & Mustillo, 2001; Mirowsky & Ross, 1989). Mirowsky and Ross (1989) suggest "perceptions of blocked goals are especially likely to make a person feel helpless, powerless, and unable to control life" (p. 95). This perception may heighten African American women's susceptibility to bouts of depression, particularly those who are rearing young children (Belle, 1982). As a result, health-enhancing self-care behaviors may be neglected. For example, individuals who feel discouraged and hopeless may lack the energy to engage in physical activity or may resort to emotional eating (Hargreaves, Schlundt, & Buchowski, 2002; Samuel-Hodge, Headen, Skelly, Ingram, et al., 2000), producing further negative consequences for health functioning.

Racial discrimination contributes to stressor pile-up for African American women. Willie, Rieker, Kramer and Brown (1995) describe racism as "the key word for an ingrained system of subordination, oppression, and victimization" (p. xiii) that should be regarded as a significant and major source of stress in the lives of African Americans. For women in particular, racial discrimination may coexist with sexism, which together limit their life opportunities in economic and political power, civil rights, and access to resources (Collins, 2000). At the same time, African American women, particularly those who identify with the superwoman/strong Black woman archetype, may internalize that

strife and personal struggle are inseparable from their membership to an oppressed

minority group. As a result, these women may come to view racial discrimination as

inevitable and beyond their control (Jones & Shorter-Gooden, 2003; S.C., 2002; Wallace,

1990; Weathers, 1998; T. Williams, 2005). To avoid feeling defeated by uncontrollable

circumstances, African American women may place acts of racism in their larger

historical context, process racist experiences with family members, or teach their children

"mastery over racism" as a means of dealing with discrimination (Billingsley, 1968;

Greene, 1994; V. M. Murry, Brown, Brody, Cutrona, & Simons, 2001). These strategies

have received empirical support from studies indicating that African American women

who enlist the support of others, particularly intimate partners in dealing with racism, are

protected from its negative psychological effects, including depression and anxiety

(Black & Murry, 2003; V. M. Murry et al., 2001). Still others suggest that feelings of

self-worth may change as a result of racial discrimination, such that African American

women who accept Eurocentric standards of beauty and femininity that devalue

characteristics of their own ethnic group may develop negative attitudes toward their own

appearance (Greene, 1994; P. B. Jackson & Mustillo, 2001). In the context of pervasive

financial strain and conflict between work and family responsibilities, negative affect

resulting from racial discrimination can leave many African American women feeling

hopeless and frustrated.

Role Performance

The processes through which African American women develop their role identity

may influence their role performance, both directly and indirectly, in ways that have

implications for health functioning. Many African American communities are

characterized by a sense of collectivism and communal responsibility rather than the individualism of the majority culture (Gaines, 1994). This sense of "we-ness" may be incorporated into African American women's role identity, such that those who see themselves as the backbone of the community and the cohesive force in the family may perceive their responsibilities to others as numerous and varied, engaging in multiple roles that meet many individuals' needs. In addition, role identity influences role performance through stress-coping behaviors. Women who effectively manage stressors may feel more efficacious in their roles as mother, wife, and provider, enhancing their role performance and relationship quality (P. B. Jackson & Mustillo, 2001).

Role fulfillment, particularly when it involves the simultaneous fulfillment of several roles, has varying consequences on women's health functioning. In general, women whom maintain several roles simultaneously tend to have enhanced levels of psychological and physical functioning (Herrera, 1995; Waldron et al., 1998). The extent to which this occurs among African American women is uncertain. For example, the Role Accumulation Hypothesis asserts that social roles provide benefits such as social support, reinforcement of self-esteem, and personal satisfaction (Waldron et al., 1998). Therefore, the more roles one fulfills, the greater the resources and reinforcements (Waldron et al., 1998). Additionally, the social connection experienced from role fulfillment enhances self-worth, a sense of purpose and belonging, and feelings of stability and security, which in turn promote positive psychological functioning and self-efficacy for maintaining healthful lifestyles (Hurdle, 2001; Kawachi & Berkman, 2001). The Role Substitution Hypothesis, however, suggests that, as additional roles emerge, particularly those that offer similar benefits, the extent to which health benefits increase becomes limited

(Waldron et al., 1998). African American women fulfilling the role of mother, for example, may not gain any greater healthful benefits when incorporating the additional role of career woman or community leader if both roles offer similar benefits of social support and reinforce self-esteem (Waldron et al., 1998). In fact, according to the Role Strain Hypothesis, maintaining multiple roles can actually lead to women feeling emotionally taxed and overwhelmed resulting in role overload (Goode, 1960; Rozario, Morrow-Howell, & Hinterlong, 2004; S. W. Williams, Dilworth-Anderson, & Goodwin, 2003).

Testing the Proposed Heuristic Model

Informed by the extant studies and theories discussed previously, the proposed heuristic model (see Figures 1 and 2) examined the pathways through which racial discrimination, stressor pile-up, stress-coping behaviors, and role responsibilities forecast the health functioning of rural African American women. Specific consideration was given to the implication of these circumstances for women who were rearing children while simultaneously maintaining community-related responsibilities. To address these issues, a proposed path between stressor pile-up and health functioning was put forth. It was hypothesized that increased stressor pile-up would be negatively associated with mental health functioning, and in turn, would result in lowered physical health among rural African American mothers. To gain further insight into the mediating circumstances through which stressors influenced the health of African American mothers, two salient behaviors, stress-coping and multiple role responsibilities, were examined in the present study. It was hypothesized that stressor pile-up would compromise African American women's mental health functioning, and in turn physical health status, through its

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association with excessive problem solving and an elevated sense of control, with which to manage the stressors. Similarly, the implications of multiple role responsibilities related to child rearing, occupation, and community-related activities were examined in the present study. It was hypothesized that stressor pile-up would amplify reports of anxious and depressive symptomatology through its association with the fulfillment of multiple role responsibilities such as parental monitoring, helping with homework, commuting to work several days a week, and participating in a variety of community activities.

This study was also designed to test under what conditions existing stressors influenced the fulfillment of multiple role responsibilities in the lives of African American women. The present study hypothesized that, when mothers report enlisting high levels of reactive stress-coping behaviors that include excessive problem solving and increased sense of control, the links between stressor pile up, and role responsibilities would be stronger (see Figure 2). The salience of racial discrimination in the lives of African American mothers was examined in the present study as well. It was hypothesized that, when mothers report experiencing high rates of racial discrimination, the links between stressor pile-up and role responsibilities would be stronger.

Finally, findings emerging from the proposed heuristic model may offer alternative ways of perceiving and theorizing about African American women's health functioning that can guide future efforts to eliminate health disparities.

CHAPTER III

METHODOLOGY

Participants

Data from the first wave of the Family and Community Health Study (FACHS), a multi-site, three-wave panel study of neighborhood and family effects on health development was used to test the hypotheses proposed in the present study. Participants in this large-scale study of African American children and their caregivers included 897 families, 475 in Iowa and 422 in Georgia. Each family included a child who was 10 or 11 years old when recruited; families with children of this age were chosen for this study because systematic analyses of developmental and family processes among this population are rare (Murry, Brown, Brody, Cutrona, & Simons, 2001).

Sampling Strategy

Sampling strategies described in this section were adapted from recent studies published by some of the principal investigators (Cutrona et al., 2000; Murry et al., 2001a). A central goal of the original study was to investigate the effects of neighborhood characteristics on the functioning of adults and children (Conger, Cutrona, Simons, & Gibbons, 1995). Families from neighborhoods recruited for this study varied on demographic characteristics to obtain a sample that reflected the diversity of African American families. In selecting neighborhoods from which to draw the sample, characteristics at the level of block group areas (BGAs), which are clusters of blocks within census tracts, were examined. Each census tract typically included four or five

BGAs. In constructing BGAs the Census Bureau strives to use naturally occurring neighborhood boundaries, such as major thoroughfares or rivers, whenever possible. During the 1990 census, BGAs averaged 452 housing units with 1,100 residents. Using the 1990 data, BGAs identified in Iowa and Georgia in African American families made up 10% or more of the population. Families were recruited from 259 BGAs, 144 in Iowa and 115 in Georgia.

In Iowa, block group areas (BGAs) in Waterloo (population 65,000) and Des Moines (population 193,000) that met the FACHS sampling criteria were identified. Families with African American children ages 10 and 11 years were identified through the public schools, which provided rosters of all African American students in grades four through six. In Georgia, BGAs that met the criteria were identified in small towns and a suburban area adjacent to Atlanta; community members who serve as liaisons between University of Georgia researchers and neighborhood residents compiled rosters and other families were randomly selected until the required number of families from each BGA had been recruited. Recruitment rates did not differ significantly across sites (61% in Iowa versus 68% in Georgia).

Interview Procedure

To enhance rapport and cultural understanding, the principal investigators of this study recruited and hired African American university students and community members to serve as field researchers to collect data from the families. The field researchers received one week of training in the administration of the self-report instruments. Before data collection began, four focus groups in Iowa and four in Georgia examined and critiqued the instruments. Each group was composed of 10 African American families

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who lived in neighborhoods similar to those from which the study participants were recruited. They suggested modification of items that they perceived to be culturally insensitive, intrusive, or unclear. After these revisions were incorporated into the instruments, the protocol was pilot tested on eight families from each site. Researchers took extensive notes on the participants' reactions to the questionnaires and offered suggestions for further changes.

The research protocol included a two-part interview administered during two separate sessions. Questionnaires administered during the interviews assessed multiple contextual processes, including family and community factors, associated with psychological well-being, family relationship quality, and development. The measures were administered via computer assisted personal interviews (CAPI), in which questions appeared in sequence on a laptop computer screen and were read aloud to the participant. Both the interview and the participant could see the screen. Interviewers entered participants' responses into the computer immediately following each question, using CASES, a special program designed for conducting research interviews.

Description of Family and Community Health Study (FACHS) Sample

Most (84%) of the primary caregivers included in the FACHS were the children's biological mothers, 6% were fathers, 6% were grandmothers, 3% were foster or adoptive parents, 2% were other relatives, 1% were stepparents, and less than 1% were non-relatives such as babysitters. Overall, 93% of the primary caregivers were female. Their mean age was 37.1 years (SD=8.18) and ranges from 23 to 80 years. Education among participants ranged from less than high school (19%) to advance graduate degrees (3%). The mode was a high school diploma (41%). Of the primary caregivers, 92% identified

themselves as African American. The remaining 8% identified themselves as ethnically mixed or belonging to another ethnic group (Murry et al., 2001a).

Sample Description of the Current Study

The present study was a secondary analysis of the first wave of data from the Family and Community Health Study (FACHS). A subsample of the FACHS sample was selected based upon the following criteria: participants were biological mothers and primary caregivers. Of the 747 families selected for the subsample, 293 families were comprised of mothers who rear children alone, 349 families were comprised of mothers who rear children with an intimate partner or husband, and 51 families were comprised of mothers who rear children with grandmothers. The mean age of the mothers in the subsample was 35.3 years (SD = 5.77), and 60.6% of them had at least a high school education. The mean per capita income in their households in 1996 was utilized: $6597 in Georgia (SD=$6867) and $6403 in Iowa (SD=$5259). Subsample families included had an average of 3 children. Approximately 72% of the women were employed.

Measures

Stressor pile-up. Stressor pile-up was measured using three indicators: unmet material needs, the inability to make ends meet, and role strain. Mothers used Conger and Elder's (1995) 4-item scale, Unmet Material Needs, to rate the extent to which their family has enough money to afford the kind of home, clothing, food, and medical care needed (1 = strongly agree to 4 = strongly disagree; α = .80). Examples of items included "My family has enough money to afford the kind of home we need," and "We have enough money to afford the kind of food we need," Mothers used Conger and Elder's (1995) 2-item scale, Can't Make Ends Meet, to rate their difficulty in paying bills (1 = no

difficulty at all to 5 = a great deal of difficulty) and the extent to which money remains

after responsibilities were covered in the home (1 = more than enough money left over to

4 = not enough to make ends meet) within a 12-month period (α = .69). Example items

included "During the past 12 months, how much difficulty have you had paying your

bills?" and "Generally, at the end of each month did you end up with..," respectively.

Mothers used a 2-item Role Conflict Scale (Matthews, Conger, & Wickrama, 1996) to

indicate the frequency of conflict experienced between their role in the family and work

(1 = often to 3 = never; α = .67). However, results from bivariate correlations among the

study variables indicated that role strain was not significantly associated with the inability

to make no ends meet or unmet material needs. Similar patterns emerged between role

strain and depressive symptomatology as well as physical health functioning. These

negligible associations indicated that role strain did not demonstrate the potential to fit

the structural equation model well. However, to best assess the fit of role strain in the

model, factor loadings were examined in the measurement model. The results suggested

that role strain was not a significant indicator for the latent construct, stressor pile-up.

Therefore, role strain was not represented in the final structural equation model.

     Racial discrimination. Racial discrimination was assessed using the 13-item

Discrimination Experiences Scale (Simons et al., 1995). Mothers indicated how often

they experienced 13 types of racial discrimination such as being suspected of doing

something wrong, being treated unfairly, having harm threatened, and being discouraged

to achieve a goal because they were African American (1 = never to 4 = several times; α

= .93). Example items included "How often has someone said something derogatory or

insulting to you just because you are African American?" and "How often has someone

ignored you or excluded you from some activity just because you are African American?"

Stress-coping behaviors. Stress-coping behaviors were measured using two indicators: perceived control and problem-solving strategies. Mothers used a 6-item Morowsky and Ross Control Scale (Mirowsky & Ross, 1989) to indicate perceived levels of control in their lives (1= strongly agree to 4= strongly disagree; α =.73). Examples of items included, "There is really no way you can solve some of the problems you have," and "You have little control over the things that happen to you." Mothers used a 5-item Problem-solving Strategies Scale (Ross & Mirowsky, 1989) to indicate the extent to which they implement certain problem-solving strategies in their lives (1= strongly agree to 4= strongly disagree; α=.38). Examples included, "When you have a problem, you try to figure out the cause and do something about it," and "When you have a problem, you try to forget about it".

Predicted Outcomes: Mental Health Functioning and Physical Health Functioning

Mental health functioning was measured using two indicators: anxious symptomatology and depressive symptomatology. Mothers used the 5-item General-Distress Depression subscale of the Mini-Mood and Anxiety Symptom Questionnaire (Mini-MASQ; Clark & Watson, 1997) to assess the extent to which they had experienced depressive symptoms within the past week (1= not at all to 3= extremely; α = .80). Example items included, "During the past week, how much have you felt hopeless?" and "During the past week, how much have you felt worthless?" Based on the same questionnaire, mothers used the 3-item General Distress-Anxiety subscale (Mini-MASQ; Clark & Watson, 1997) to assess the extent to which they had experienced non-specific

anxiety related symptoms within the past week (α = .85). Example items included, "During the past week, how much have you felt tense or "high strung"?" and "During the past week, how much have you felt uneasy?"

Mothers' physical health functioning was assessed using a 2-item physical health questionnaire to compare their health status at the time of data collection to their health status one year previously (α = .41). These questions included "In general, would you say your physical health is excellent, very good, good, fair or poor?" and "Compared to one year ago, would you say your physical health is much better, somewhat better, about the same, somewhat worse, or much worse?"

Construct Development: Role Responsibility Measure

In order to assess the multiple role responsibilities in the lives of African American mothers, a latent construct labeled *Role Responsibilities* was developed. Three indicators, *maternal school-related responsibilities*, *occupation related-responsibilities*, and *community-related responsibilities* were used to assess the extent to which mothers endorsed several activities salient to their involvement in their child's school as well as to those work-related and community-related activities they were personally involved in, respectively. The maternal school-related responsibilities indicator was comprised of 8 items, occupation-related responsibilities was comprised of approximately 3 items, and community-related role responsibilities included 10 items. The criteria utilized to select the items for each indicator were as follows: 1) items indicating mothers' engagement in the targeted responsibilities and 2) items indicating the frequency of mothers' engagement in the targeted responsibilities. A description of the psychometric analyses and measurement construction is provided in the following section.

Role responsibilities. Cronbach's alpha was conducted for each of the scales created to determine if the selected indicators, maternal school-related responsibilities, occupation-related responsibilities, and community-related responsibilities, clustered to form the latent construct role responsibilities. Maternal school-related responsibilities included 2-items from the *Parental Involvement in School Work subscale of the Family Routines scale* (*FRT*; Conger et. al, 1995), 5 items from the *Parental Monitoring Scale* (*MON*; Thornberry, Huizinga, & Loeber, 1989), and 2 items from the *Familiarity with Target's Teacher scale* (*FWT*; Conger et. al, 1995) to indicate the multiple school-related responsibilities present in the lives of African American mothers. Example items included, "How often do you talk to (child's name) about their schoolwork" and "How often do you help (child's name) with his or her homework?" (*FRT*; 1= everyday to 4=never); "How often do you know what (target child) is doing after school?" and "How often do you know how well target child is doing in school?" (*MON*; 1= always to 4= never); and "How well do you know (target child's) teachers?" and "How often do you talk with (target child's) teachers?" (*FWT*; 1=not at all to 4=very well; and 1= never to 5=several times). Community-related responsibilities included 5 items from the *Religious Activities subscale* (*REL*; Simons et al., 1995), 3 items assessing participants' involvement in clubs/organizations, and 2 items from the *Neighborhood Cohesion subscale for Community Affiliation* (Simons et al., 1995) to indicate to what extent participants were involved in religious activities, clubs/professional organizations, and neighborhood issues in their communities. Example items included "How often in the past month did you attend social events with other members of your church?" and "How often in the past month did you teach Sunday school or a class on religion?" (*REL*;

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1=never to 5=daily); "Thinking of all the organizations, clubs, or groups you belong to, how often do you attend meetings or gatherings of these groups?" (1=more than once a week to 5=never); and "About how often do you and people in your neighborhood do favors for each other?" and "When a neighbor is not home, how often do you and other neighbors watch over their property?" (1= often to 3= never). Occupation-related responsibilities included 3 items. Example questions included "In a normal work week, how many hours on average do you work at your job?" and "How many days per week do you normally travel to this job?" However, Cronbach's alpha for this scale was considerably low (.06), indicating that the items did not cluster to form a reliable scale. Therefore, occupation-related responsibilities were not included as an indicator for role responsibilities. This construct, therefore, consisted of only two indicators: maternal school-related and community-related responsibilities.

Cronbach's alpha and factor loadings. To create scales for the indicators maternal school-related responsibilities and community-related responsibilities, internal consistency among the selected items for each indicator were analyzed. If Cronbach's alphas for the selected items relevant to each indicator (e.g., maternal school-related responsibilities and community-related responsibilities) was .70 or above, strong evidence existed to support that the items clustered to form a reliable scale (Nunally, 1978). Conversely, scales with a Cronbach's alpha below .70 were not included as indicators for Role Responsibilities. Items that decreased the overall consistency of each scale were deleted. As indicated in the description of the measures, occupation-related role responsibilities did not emerge as a reliable scale and was therefore discarded from

further analyses. Once it was established that the items formed a reliable scale for each indicator, factor loadings were examined in the measurement model.

Plan of analysis

A secondary data analysis was conducted to report the results of the proposed heuristic model. Additionally, because data was collected from mothers residing in Georgia and Iowa, an initial test was conducted to determine whether there were any site differences on the selected study variables. Since no site differences were found, analyses were conducted with the sites combined.

The analyses for the proposed study included several steps. First, descriptive statistics were executed on the demographic variables within the sample. Second, to determine whether the selected indicators for role responsibilities (e.g., maternal school-related responsibilities and community-related responsibilities) clustered appropriately, factor loadings were examined in the measurement model. Third, structural equation modeling (SEM) was used to test the study hypotheses. Fourth, relying on Barron and Kenny's (1986) requirements for mediation, the extent to which stressor pile-up indirectly influenced health functioning through stress-coping behaviors and role responsibilities was determined. In addition, a Sobel test was conducted to assess the significance of the mediational effect. Last, a moderation analysis was executed to determine whether the impact of stressors on role responsibilities varied with stress-coping behaviors and experiences of racial discrimination.

Descriptive statistics. Using SPSS, the first step in the analysis plan involved obtaining descriptive statistics (e.g. means, standard deviations, and correlations) of the study sample to provide an overview of sample characteristics (Nachimas & Nachimas,

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1987). Correlations were conducted to examine the associations between the variables within the proposed study (Wilcox, 1995).

    Structural equation modeling. Using the Amos 5.0 software, structural equation modeling (SEM) was used to test the hypothesized relationships among the study variables as presented in the conceptual model for the present study (see Figure 1 and 2) (Arbuckele & Wothke, 1999). SEM was chosen because it will allow for several relationships to be tested simultaneously, it accommodates for measurement error, and it is capable of measuring both direct and indirect relationships (Raykov & Marcoulides, 2000). To handle missing data, the full information maximum likelihood (FIML) estimation method was employed. This method was selected because it circumvents potential problems such as biased parameter estimates that are more likely to occur when using pairwise or listwise deletion to handle missing data (Arbuckele & Wothke, 1999; Wothke, 2000). Additionally, FIML does not delete a case that may be missing a variable within a wave of data, further alleviating biased parameter estimates.

    Mediational effects of stress-coping behaviors and role responsibilities. Two mediational effects were tested: 1) the extent to which stress-coping behaviors mediated the influence of stressor pile-up on maternal mental health functioning, and 2) the extent to which role responsibilities mediated the influence of stressor pile-up on maternal mental health functioning (see Figure 1). Mediational effects were analyzed based on Barron and Kenny's (1986) criteria for mediation. For example, stress-coping behaviors would be determined as a mediator between stressor pile-up and mental health functioning if a) stressor pile-up is associated with stress-coping behaviors, b) stressor pile-up is associated with mental health functioning, c) stress-coping behaviors are

significantly related to changes in mental health functioning, and d) the contribution of stressor pile-up on maternal health functioning is not significant in the presence of stress-coping behaviors. This criteria was enlisted to analyze the mediational effects of stress-coping behaviors on the relationship between stressor pile-up and role responsibilities as well. In addition, a Sobel (1982) test (z) was conducted to assess the significance of the mediational effect. A value greater than zero for the z-value indicated that the mediational effect was significant (Sobel, 1982).

Moderation effects of stress-coping behaviors. The proposed heuristic model was run separately for 1) women enlisting high versus low levels of stress-coping behaviors, and 2) women experiencing high versus low levels of racial discrimination to assess the moderation effects of each construct on the relationship between stressor pile-up and role responsibilities (see Figure 2).

CHAPTER IV

RESULTS

The present chapter highlights the major findings related to each hypothesis and specifies the extent to which the proposed hypotheses were supported. Presented first is the descriptive statistics for all study variables, followed by SEM analyses for the proposed mediational and moderation models, including reliabilities and factor loadings for the construct, role responsibilities, that was created for the present study.

Correlations, Means, and Standard Deviations

Mean and Standard Deviations Among Study Variables

Correlations, means, and standard deviations are presented in Table 1. In general, mothers appeared to be in fairly good health. An examination of mothers' reports of depressive symptomatology revealed a range in composite scores from 4 to 15. On a scale of 1 to 3 (1 = not at all, 2 = somewhat, 3 = extremely), these composite scores reveal that overall, mothers' experience with depressive symptoms varied from "not at all" to "extremely" with most mothers experiencing fairly high functioning (M = 6.50, SD = 1.85). Mothers' experiences with anxious symptoms were similar to those related to depression. Their composite sores ranged from 3 to 9, with most mothers experiencing very little anxiety (M = 4.40, SD = 1.45). The reports for physical health functioning paralleled those of mental health. On a scale of 1 to 5 (1 = excellent, 2 = very good, 3 = good, 4 = fair, 5 = poor), mothers' composite scores for physical health status indicated a range from "excellent" to "poor" with the mothers on average reporting that they were in

"good" health. Mothers' self-reports of symptoms of depression, anxiety, and physical health status indicated that overall they were functioning very well. The means and standard deviations of the remaining study variables are presented below.

Correlations Among Study Variables

The results from the bivariate correlations partially confirm the expected association between stressors and mental and physical health functioning (see Table 1). For example, financial stressors, including objective assessment of unmet material needs as well as the subjective measure of financial difficulty and inability to make ends meet, were significantly and positively associated with depressive ($r = .30$, $p < .01$; $r = .30$, p < .01) and anxious ($r = .12$, $p < .01$; $r = .20$, $p < .01$) symptomatology, respectively. That is, lack of available financial resources paralleled increased rates of depressive and anxious symptomatology. Similarly, unmet material needs and the inability to make ends meet were significantly and negatively associated with physical health status ($r = -.20$, $p < .01$; $r = -.16$, $p < .01$), suggesting that financial strain emerging from these sources is associated with compromised physical health. In addition, a significant relationship between elevated role strain as a consequence of balancing home and work related responsibilities and anxious symptoms ($r = .12$, $p < .01$) also was observed. Role strain, however, did not correlate with the other two indicators for stressor pile-up, inability to make ends meet and unmet material needs. Similarly, role strain was not significantly associated with the depressive symptomatology or physical health status of mothers in the present sample. However, because role strain resulted in a significant correlation with anxious symptomatology, the decision was made to retain the variable for the measurement model, and examine the factor loadings that emerged.

Table 1

Correlations, Means, and Standard Deviations for All Study Variables

	1	2	3	4	5	6	7	8	9	10	11	12
Stressor Pile-up												
1.Unmet Material Needs	-											
2. Can't Make Ends Meet	.54**	-										
3. Role Conflict	-.07	-.07	-									
Stress-coping Behaviors												
4. Problem Solving Strategy	-.18**	-20**	.04	-								
5. Perceived Control	-.23**	-.19**	.05	.50**	-							
Role Responsibilities												
6. Maternal school-related Responsibilities	-.18**	-.15**	.01	.08*	.12**	-						
7. Occupation-related Responsibilities	-.11**	-.08	.05	-.01	.07	.01	-					
8. Community-related Responsibilities	-.11**	-.06	.09*	.17**	.13**	.17**	.06	-				
Mental Health Functioning												
9. Depressive Symptomatology	.30**	.30**	.07	-.27**	-.33**	-.13**	-.09**	-.10**	-			
10. Anxious Symptomatology	.18**	.20**	.12**	-.15**	-.20**	-.15**	-.04	-.07	.59**	-		
Physical Health Functioning												
11. Physical Health Status	-.20**	-.16**	.03	.16**	.18*	.10**	.06	.16**	-.28**	-.14**	-	
Racial Discrimination												
12. Racial Discrimination	.09*	.01	.13**	.15**	.06	.00	-.05	.19**	.08*	.10**	-.07	-
M	9.20	5.66	2.77	11.60	21.56	27.30	.00	15.49	6.50	4.40	6.88	26.40
SD	2.54	2.04	1.12	1.57	3.07	3.15	1.78	6.53	1.85	1.45	1.48	9.57

Testing the Hypothesized Paths to Compromised Mental and Physical Health Functioning

Among African American Mothers

Measurement Models

The hypothetical models were analyzed via structural equation modeling (SEM) using AMOS 5.0 software (Arbuckle & Wothke, 1999) SEM was chosen because it allows the unique contributions of several variables to be tested at once, it takes into account measurement error, and it measures both direct and indirect relationships (Raykov & Marcoulides, 2000). The AMOS software uses the full information maximum likelihood (FIML) estimation method to handle missing data. FIML does not delete cases that are missing data for one or more variables within a wave of data collection. This avoids potential problems, such as biased parameter estimates, that are more likely to occur if pairwise or listwise deletion procedures are used to compensate for missing data (Arbuckle & Wothke, 1999; Wothke, 2000). Figure 3 presents the factor loadings of the manifest variables on their respective latent constructs, including those that emerged for the newly developed construct, role responsibilities, specifically created for the present study. The utility of three factors used to represent this construct is discussed in the following section. Figure 4 presents the results of the structural model for stressor pile-up's direct impact on health functioning, while Figure 5 presents the results of the full structural model for stressor pile-up's indirect impact on health functioning through stress-coping behaviors and role responsibilities.

Reliabilities and factor loadings for role responsibilities construct. Three indicators, maternal school-related responsibilities, occupation-related responsibilities, and community-related responsibilities, were developed to reflect an accumulation of role

responsibilities of rural African American mothers. The criteria utilized to select the items for each indicator were as follows: 1) items indicating mothers' engagement in the targeted responsibilities, and 2) items indicating the frequency of mothers' engagement in the targeted responsibilities. The reliability for each scale was analyzed, including changes in Cronbach's alphas should individual items be deleted from the scale. All 8 items were retained for the maternal school-related responsibilities scale which resulted in a Cronbach's alpha of .65. On the contrary, in examining the community-related responsibilities scale, it was apparent that deleting 1 item (i.e. "How many groups do you belong to?") from the original 10 items would increase Cronbach's alpha from .69 to .72. Therefore, the item was deleted. Occupation-related responsibilities included 3 items with a Cronbach's alpha of .06 and did not emerge as a significant indicator. As discussed in the analysis plan, a Cronbach's alpha of .70 or above indicates strong evidence that the items cluster to form a reliable scale (Nunally, 1978). Therefore, based on the reliabilities for both maternal school-related responsibilities and community-related responsibilities, they were selected to represent the construct Role Responsibilities. An examination of the factor loadings for this construct revealed that maternal school-related responsibilities loaded positively and significantly ($\beta = .34$), while the factor loading for community-related responsibilities, although significant, was low ($\beta = .17$). In hopes of increasing the beta for community-related responsibilities, the model was reanalyzed, this time including the previously deleted item (e.g., "How many groups do you belong to?"). Including the previously deleted item increased the beta for community-related responsibilities from .17 to .23. Therefore the decision was made to retain all 10 original items for the community-related responsibilities scale.

As predicted, Figure 3 indicates that mothers' unmet material needs and inability to make ends meet loaded significantly and positively (β = .76 and β = .70, respectively) on the latent construct stressor pile-up. On the other hand, factor loadings for role strain were not significant, suggesting that was not a salient indicator for this construct (R^2 = -.10). Therefore role strain was not included in the structural model. Mothers' reports of problem-solving strategies and perceived control in their lives loaded significantly and positively on the stress-coping behaviors latent construct (β = .65 and β = .76, respectively). Depressive and anxious symptomatology loaded significantly and positively on the latent construct mental health functioning (β = .94 and β = .63, respectively).
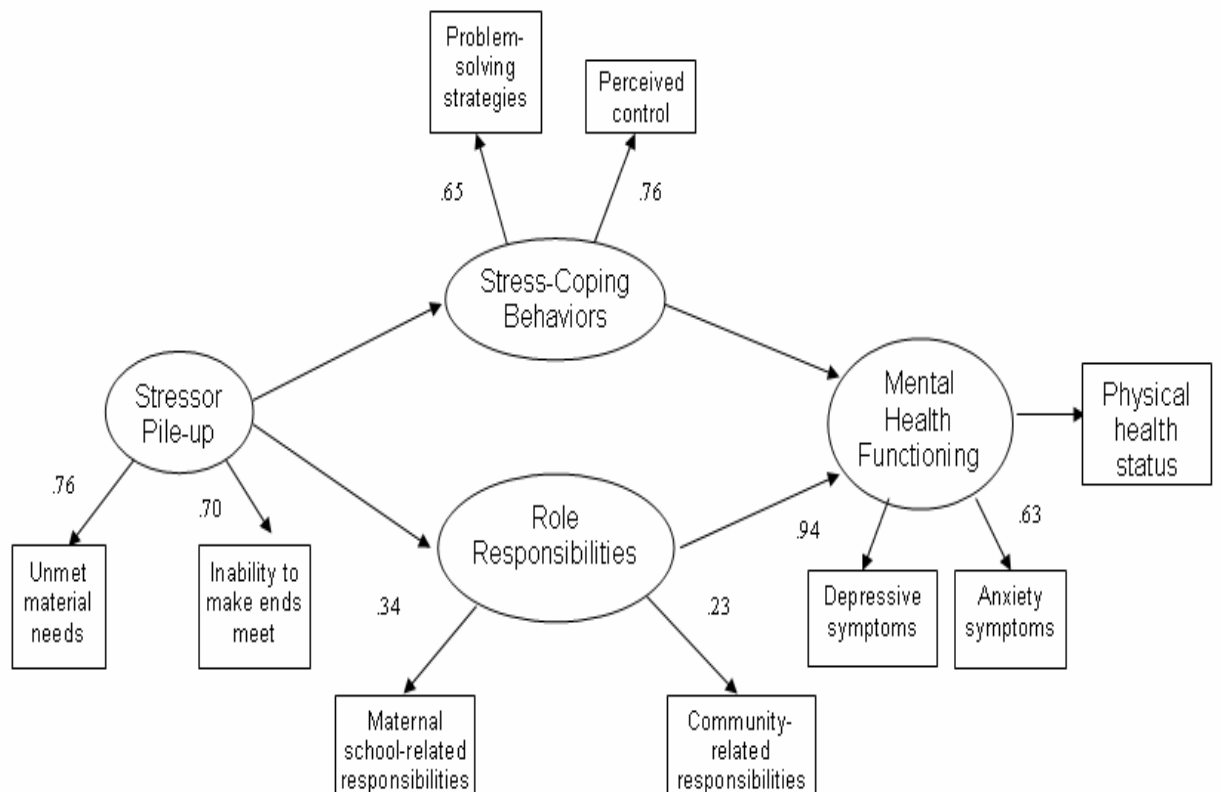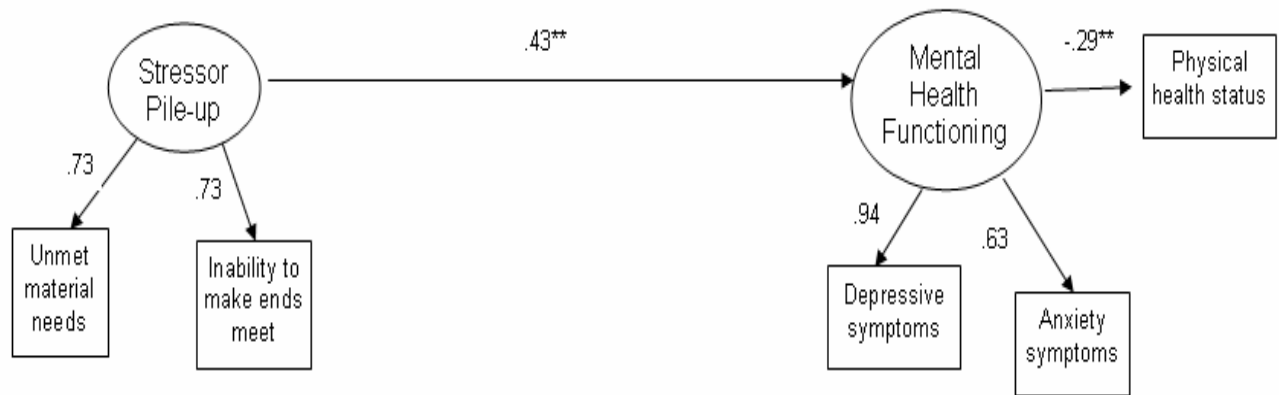

Figure 3. Factor Loadings for the Measurement Model Examining Stressor Pile-up, Stress-coping Behaviors, and Role Responsibilities on Mental and Physical Health Functioning

Structural Model

After determining that the measurement model fit the data as specified, the structural model was tested. According to Arbuckle and Wothke (1999), a χ^2/df ratio between 1 and 3 indicates a good fit. Based on the parameters that emerged for the χ^2/df ratio the data for the direct effect model showed trends toward marginal fit of the data ($\chi^2 = 13.61$, $df = 4$, $p = .009$, $\chi^2/df = 3.40$). On the other hand, the mediational model demonstrated slightly greater potential to fit the data well ($\chi^2 = 69.15$, $df = 23$, $p<.00$, $\chi^2/df = 3.01$). As suggested by the analysis plan, however, alternative fit indices were examined for both models to proceed with certainty. Statistics for the direct effect model demonstrated that the comparative fit index (CFI) was .99, the incremental fit index (IFI) was .99, and the root mean square error of approximation (RMSEA) was .06, suggesting that the overall goodness of fit indices were well within the suggested parameters (see Figure 4). Further, statistics for the full mediational model demonstrated that the comparative fit index (CFI) was .96, the incremental fit index (IFI) was .96, and the root mean square error of approximation (RMSEA) was .05, suggesting that the overall goodness of fit indices were also well within the suggested parameters for this model (see Figure 5; Byrne, 1998).

Direct effects. The present study first examined the direct effects of stressor pile-up on the health functioning of African American mothers (see Figure 4). It was hypothesized that increased stressor pile-up would be associated with decreased mental health functioning, which in turn, would be associated with decreased optimal physical health. The results reveal that the hypothesis was supported. The inability to meet financial responsibilities was associated with heightened depressive and anxious

symptoms (β = .43, *p* = .01). In turn, compromised mental health was associated with less

optimal physical health (β = .29, *p* = .01). In sum, results of the direct effect model

suggest that increases in mothers' stressor pile-up compromised their mental health,

which in turn, had deleterious consequences for their physical health status.

**p<.01
X²=13.61(4 df), p=.009
Ratio=3.40; RMSEA=.06; CFI=.99; IFI=.99

Figure 4. Structural Model Testing Direct Effect of Stressor Pile-up on Mental and Physical Health Functioning

Mediational effects. Figure 5 illustrates the proposed mediational influence of

stress-coping behaviors and role responsibilities on the link between stressor pile-up,

mental health functioning, and physical health status. In terms of stress-coping behaviors'

mediational effect, it was hypothesized that increased stressor pile-up would be linked to

African American mothers' compromised mental health, and in turn lowered physical

health status, through its association with excessive problem solving and a greater sense

of perceived control. The results presented in Figure 5 suggest that, stressor pile-up was

negatively associated with stress-coping behaviors ($\beta = -.40$, $p < .01$), and stress-coping

behaviors was negatively associated with mental health functioning ($\beta = -.33$, $p < .01$).

The findings supported the proposed hypothesis. The predicted paths suggest that

exposure to multiple stressors compromised the engagement of proactive stress-coping

behaviors, which in turn amplified rates of maternal depression and anxiety. Additionally,

the analyses for stress-coping behaviors' effect only partially met three of the four

conditions for mediation as stated by Baron and Kenny (1986): a) stressor pile-up was

associated with mental health functioning ($\beta = .43$, $p < .01$), b) stressor pile-up was

associated with stress-coping behaviors ($\beta = -.40$, $p < .01$) and c) stress-coping behaviors

influenced mental health functioning ($\beta = -.44$, $p < .01$). However, the final condition was

not met: d) the contribution of stressor pile-up on maternal mental health functioning was

still significant in the presence of stress-coping behaviors ($\beta = .31$, $p < .01$) (see Figure

6a). That is, while the direct effect of stressor pile-up on mental health functioning

decreased in the presence of stress-coping behaviors' mediational effect, it did not

diminish completely. Noteworthy as well is that stress-coping behaviors only partially

mediated the relationship between stressor pile-up and mental health functioning, yet

African American mothers' problem solving strategies and increased sense of control still

contributed more variance (19%) to their mental health functioning than did the influence

of financial strain alone (10%).

To assess the significance of the indirect effect of stress-coping behaviors on the

link between stressor pile-up and mental health functioning, a Sobel test was conducted

using the following formula:

z-value = $a*b$/SQRT($b^2*s_a^2 + a^2*s_b^2$), whereby a = the unstandardized regression coefficient for the association between stressor pile-up and stress-coping behaviors;

s_a = standard error of the association between stressor pile-up and stress-coping behaviors;

b = the unstandardized regression coefficient for the association between stress-coping behaviors and mental health functioning (in the face of the association between stressor pile-up and mental health functioning);

and s_b = the standard error of the association between stress-coping behaviors and mental health functioning.

A value greater than zero for the z-value indicates that the mediational effect is significant (Sobel, 1982). Therefore, the results of the Sobel test ($z = 4.43$, $p < .001$) indicated that the influence of stressor pile-up on mental health functioning through stress-coping behaviors was greater than 0 and demonstrated a significant mediational effect. These results suggest that stress emerging from unmet material needs and the inability to make ends meet decreased mothers' utilization of proactive stress-coping behaviors, which in turn, forecast increased rates of anxious and depressive symptomatology.

Similarly, the present study hypothesized that role responsibilities would mediate the path between stressor pile-up and mental health functioning. Figure 5 indicates that stressor pile-up negatively influenced role responsibilities ($\beta = -.73$, $p < .01$), and role responsibilities negatively influenced mothers' mental health functioning ($\beta = -.40$, $p < .01$). Similar to the mediational effect noted in the link between stressor pile up and stress-coping behaviors, the hypothesis stated for role responsibilities' mediational effect

was supported. That is, the predicted paths suggest that exposure to multiple stressors compromised the engagement of multiple role responsibilities, which in turn amplified rates of maternal depression and anxiety. Results from this mediational path analyses revealed that, it too, met only three of the four conditions (Baron & Kenny, 1986): a) stressor pile-up was associated with mental health functioning ($\beta = .43, p < .01$), b) stressor pile-up was associated with role responsibilities ($\beta = -.45, p < .01$), and c) role responsibilities influenced mental health functioning ($\beta = -.32, p < .01$). Yet, the final condition was not met: d) the contribution of stressor pile-up on maternal health functioning was still significant in the presence of role responsibilities ($\beta = .39, p < .01$) (see Figure 6b). As it relates to role responsibilities, however, compromised multiple role fulfillment contributed less variance (10%) to their mental health functioning than did the inability to make ends meet combined with unmet material needs (15%). Similarly, an alternative test was conducted to ascertain the significance of this mediational effect. Results from the Sobel test ($z = 3.49, p < .001$) revealed that role responsibilities significantly mediated the path between stressor pile-up and mental health functioning. These results suggest that stress emerging from unmet material needs and the inability to make ends meet decreased mothers' fulfillment of maternal school-related and community-related responsibilities, which in turn, forecast increased rates of anxious and depressive symptomatology.

The final hypothesis proposed that mothers' increased reports of anxious and depressive symptoms would negatively influence their physical health status. This hypothesis was supported, indicating that experiencing depression and anxiety lowered rural African American mothers physical health status ($\beta = -.30, p < .01$).
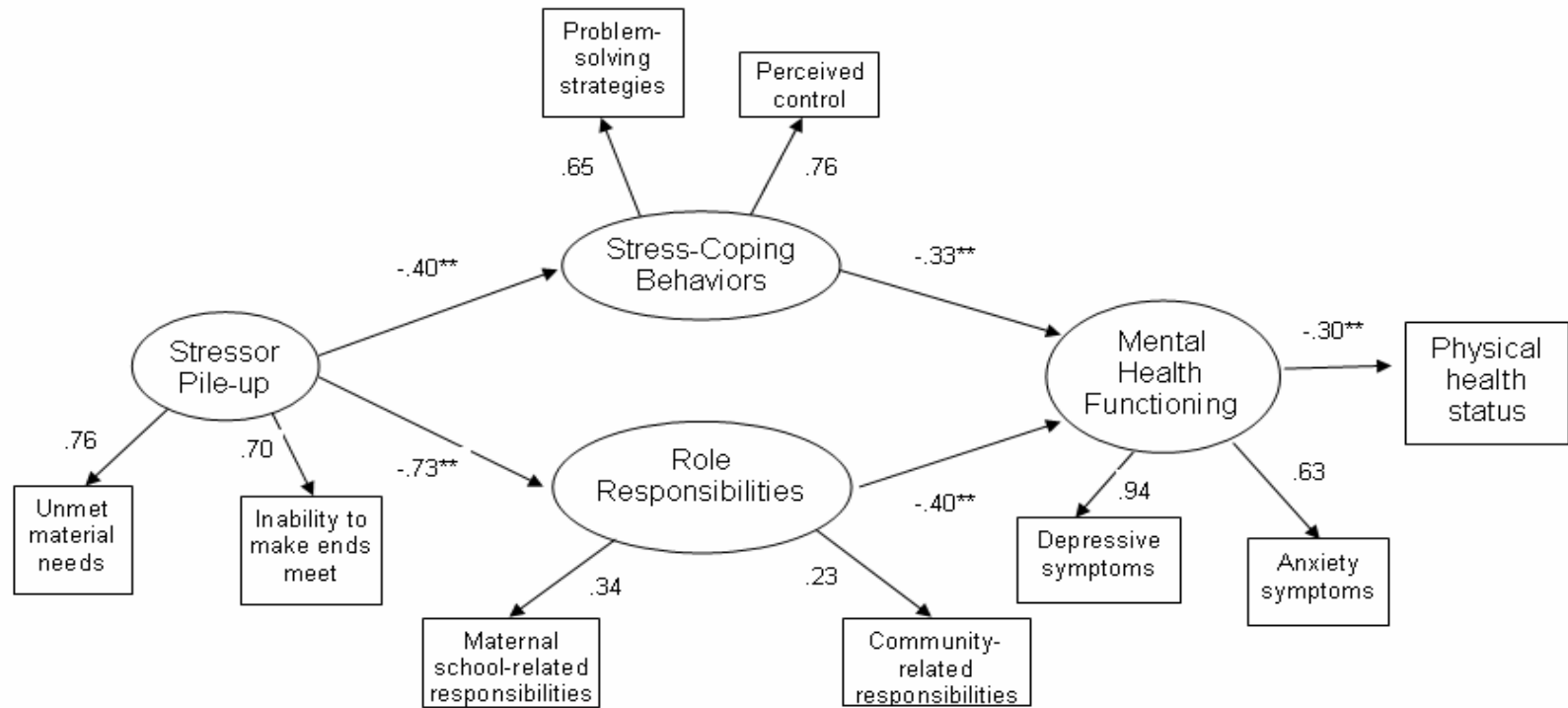
**p<.01
X^2=69.15(23 df), p=.00
Ratio=3.01; RMSEA=.05; CFI=.96; IFI=.96

Figure 5. Structural Model Testing Indirect Effect of Stress-coping Behaviors and Role Responsibilities on the Path Between Stressor Pile-up and Mental and Physical Health Functioning
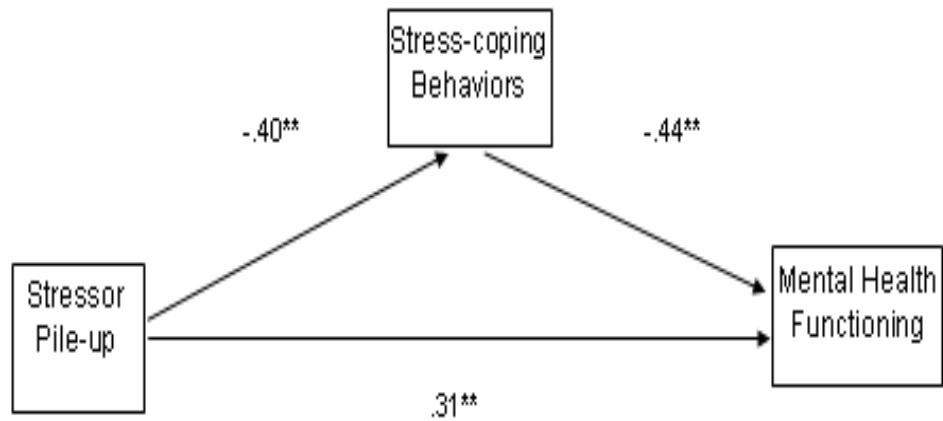
**p<.01

Figure 6a. Mediational Effect of Stress-coping Behaviors According to Barron and Kenny's (1986) Criteria for Mediation
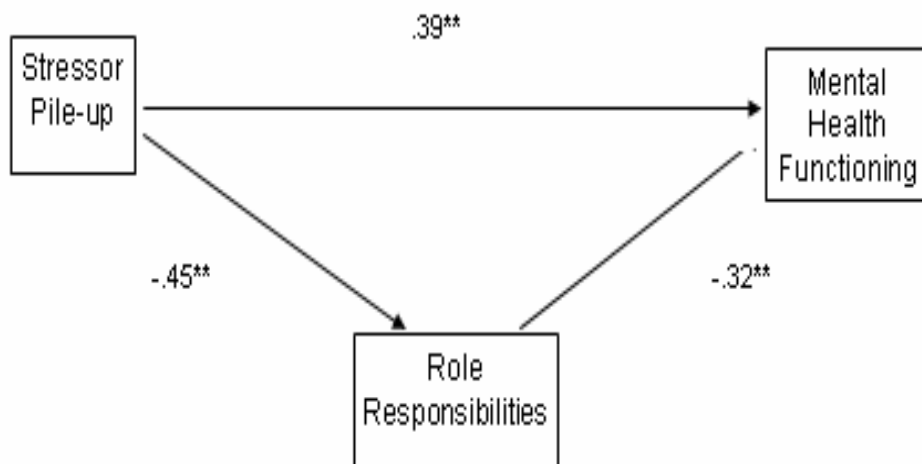
**p<.01

Figure 6b. Mediational Effect of Role Responsibilities According to Barron and Kenny's (1986) Criteria for Mediation

Table 2

Sobel Test for Indirect Effects of Stress-coping Behaviors and Role Responsibilities

Indirect Effects	Sobel Test (z)	p
Stressor Pile-up → Stress-coping Behaviors → Mental Health Functioning	4.43	.02
Stressor Pile-up → Role Responsibilities → Mental Health Functioning	3.49	.04

Testing moderation effects. The present study also sought to investigate under what conditions stress-coping behaviors and racial discrimination moderated the influence of stressor pile-up on African American mothers' fulfillment of maternal school-related responsibilities as well as those linked to their communities. Specifically, the present study hypothesized that, when mothers report enlisting high levels of reactive stress-coping behaviors that include excessive problem solving and a greater sense of perceived control, the links between stressor pile up, and role responsibilities would be stronger. Additionally, it was hypothesized that, when mothers report experiencing high rates of racial discrimination, the links between stressor pile-up and role responsibilities would be stronger. The results for stress-coping behaviors' moderation effect is presented first (see Tables 3 and 4), followed by the test for moderation effects of racial discrimination on the association between stressor pile up and role responsibilities (see Table 5).

To determine whether the impact of stressor pile-up on role responsibilities varied with stress-coping responsibilities, the original model was estimated separately for women enlisting high versus low levels of problem-solving and those reporting high versus low perceived control. High- and low-level groups were formed by splitting the

distributions for these variables at the median. First, all paths were constrained on the baseline model. For problem solving strategies, $\chi^2 = 157.86$, $df = 54$; for perceived control, $\chi^2 = 155.88$, $df = 54$. Next, one equality constraint at a time was relaxed, allowing the coefficient to differ across paths for high and low groups, and the model was re-estimated. Re-estimation of the multigroup model resulted in significant changes in chi-square for both problem-solving strategies ($\Delta\chi^2 = 6.84$, $df = 1$, $p < .01$; see Table 3) and perceived control ($\Delta\chi^2 = 8.83$, $df = 1$, $p < .00$; see Table 4). The results indicate that the proposed hypothesis was supported. That is, the link between stressor pile-up and role responsibilities was stronger for women enlisting fewer problem-solving strategies ($\beta = -.51$; see Figure 7a) and reporting lower levels of perceived control in their lives ($\beta = -.53$; see Figure 7b). Compared with those in the high group, stressor pile-up had a more negative influence on the fulfillment of role responsibilities for mothers in the low group. Racial discrimination, however, did not emerge as a significant moderator for the path between stressor pile-up and role responsibilities (see Table 5).

Table 3

Impact of Stressor Pile-up on Role Responsibilities as Moderated by Problem-solving Strategies

Moderator	Model	Level	Relationship Quality	Δx^2 (*p*)
	Equal Across Group			
Problem-solving Strategies		Low	-.73	
		High	-.73	
				6.84 (p < .001)
	Free Across Group			
		Low	-.51	
		High	-.27	

Table 4

Impact of Stressor Pile-up on Role Responsibilities as Moderated by Perceived Control

Moderator	Model	Level	Relationship Quality	Δx^2 (*p*)
	Equal Across Group			
Perceived Control		Low	-.73	
		High	-.73	
				8.83 (p < .001)
	Free Across Group			
		Low	-.53	
		High	-.23	
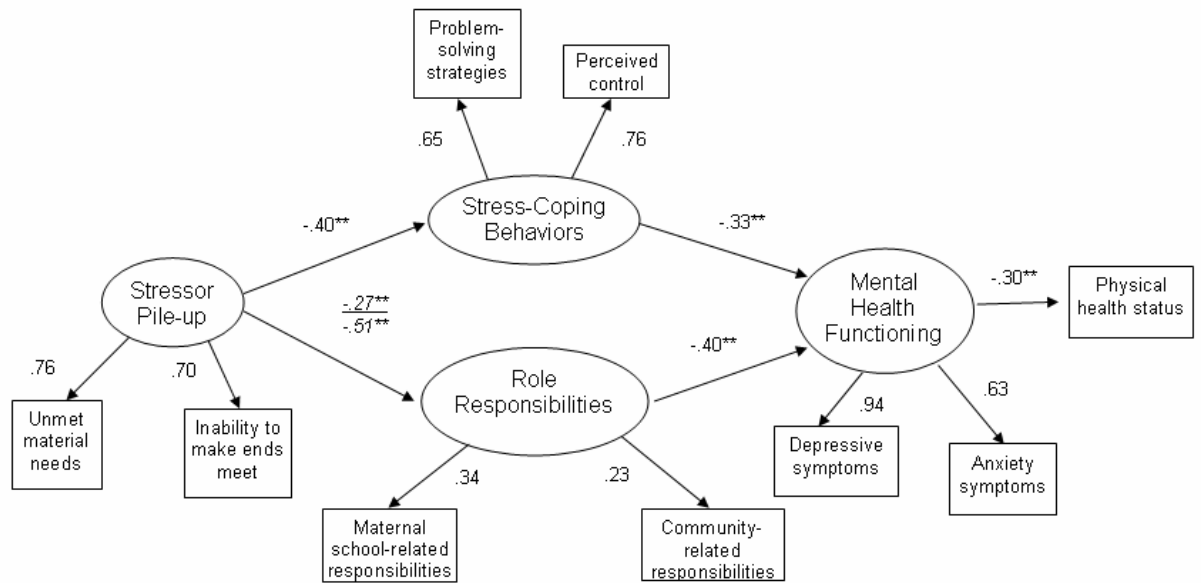
*p < .05; **p < .01; ***
Coefficients above the line: High Problem-solving Group
Coefficients below the line: Low Problem-solving Group

Figure 7a. Stacked Model with Problem-Solving Strategies as a Moderator
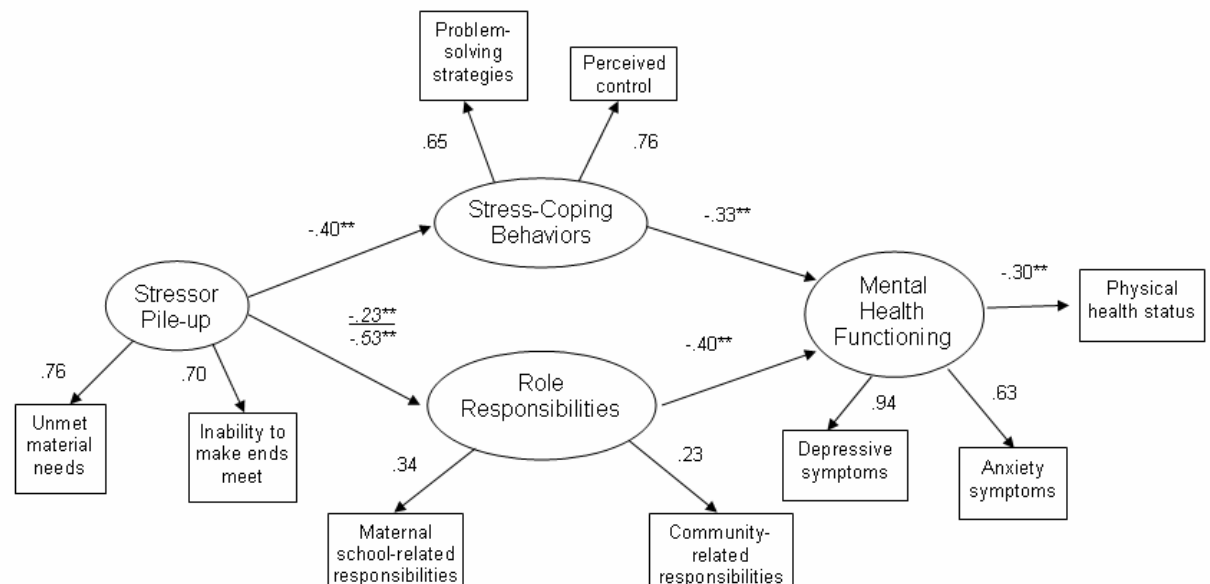
*p < .05; **p < .01; *** p < .001.
Coefficients above the line: High Perceived Control Group
Coefficients below the line: Low Perceived Control Group

Figure 7b. Stacked Model with Perceived Control as a Moderator

Table 5

Impact of Stressor Pile-up on Role Responsibilities as Moderated by Racial

Discrimination

Moderator	Model	Level	Relationship Quality	Δx^2 (p)
	Equal Across Group			
Racial Discrimination		Low	.36	
		High	.36	
				.275
	Free Across Group			
		Low	--	
		High	--	

Testing Alternative Models

As a follow-up to the full mediational model tested in the present study, an

alternative mediational model was tested to examine differences emerging between

mothers who were partnered (N = 349) and those who were solo (N = 293). First, all

paths were constrained on the baseline model for solo and partnered mothers (χ^2 =

110.724, df = 55). Next, one equality constraint at a time was relaxed, allowing the

coefficient to differ across paths for solo and partnered mothers, and the model was re-

estimated. Re-estimating the model resulted in significant improvement in fit, suggesting

that group differences existed on the path between stress-coping behaviors and mental

health functioning for partnered mothers ($\Delta\chi^2$ = 15.92, df = 1, p < .01). That is, stress-

coping behaviors was negatively and significantly associated with partnered mothers

mental health functioning (β = -.50, p < .01)

CHAPTER V

DISCUSSION

A variety of factors have been linked to African American women's compromised health outcomes. Sociostructural stressors such as poverty, racial discrimination, and financial strain are often prevalent among women of color, specifically African American women, and consequently emerge as predictive variables leading to increased incidences of depression and chronic illness. On the other hand, lack of health awareness, a dearth of culturally competent health promotion programs, and poor communication between physicians and their African American patients have also been implicated as risk factors for poor health outcomes among African American women. Despite these explanations, however, few studies have examined the extent to which African American women's management of daily stressors, in addition to the fulfillment of multiple role responsibilities, influence their health functioning outcomes. Moreover, little attention is given to the sociohistorical and cultural context in which these behaviors occur. The present study addressed this issue by focusing on African American women's daily life management strategies, specifically their reaction to existing stressors and performance in parental and community roles, and the extent to which these behaviors influenced their mental and physical health functioning outcomes. Integrating the MEES model of Family Stress Theory, tenets of Black Feminist Theory, as well as Symbolic interaction theory, the present study examined linkages between African American women's health disparities and their socialization within a sociohistorical and cultural context that

prioritizes strength, resilience, and survivorship as essential characteristics of African American womanhood. To the extent that African American women internalize these traits, commonly referred to as the superwoman or strong black woman, as salient components of their identity, the present study purported that consequences may emerge for their stress-coping behaviors and role responsibilities. These experiences and reactions have implications for understanding increasing health disparities and poor health functioning among African American women.

To explore the relationships asserted in the proposed theoretical framework, mediational and moderation pathways were tested to assess the implications of stress-coping behaviors and role responsibilities on the link between stressors and health functioning. It was hypothesized that increased stressor pile-up would be linked to African American mothers' compromised mental health, and in turn lowered physical health status, through its association with excessive problem solving and a greater sense of perceived control. This hypothesis emerged from the notion that expectations linked to the strong black woman mode of functioning presuppose an inherent resilience and psychological hardiness: African American women *can* and *should* manage their personal stressors and life demands in silence because strong women cannot be overwhelmed. At the same time, flexible kinship roles as well as a sense of communal responsibility may provide African American women with heightened role responsibilities, thus increasing their susceptibility to stress and strain (Dilworth-Anderson, Williams, & Gibson, 2002). To assess the salience of multiple role fulfillment among the women sampled, it was hypothesized that stressor pile-up would negatively influence African American mothers' mental health, and in turn physical health, through their heightened engagement in

maternal and community role responsibilities. Additionally, to illustrate the conditions under which African American mothers' role responsibilities are compromised, moderation pathways were also tested. Specifically, excessive problem solving and a greater sense of control were hypothesized to moderate the influence of stressor pile-up on role responsibilities, while increased reports of racial discrimination were also expected to strengthen the link between stressors and role responsibilities.

The findings of the present study challenged many of the tenets discussed in the review of the literature and the proposed theoretical framework, yet, at the same time, illustrated the paradoxical nature of the strong black woman/superwoman functioning. For example, an explicit assumption that guided the present study explained linkages among context, cognition, and behavior as it relates to health functioning outcomes in African American women. It is proposed that when faced with stressors, African American women who engage in excessive, even hyper-vigilant, problem-solving, in addition to maintaining multiple role responsibilities, may be doing so in response to the cultural expectation for them to be survivors whom are resilient and strong. At first glance, the findings that emerged appear to refute this proposition. When experiencing difficulty in making ends meet, as well as feeling challenged with unmet material needs, African American mothers enlisted fewer problem-solving strategies and perceived themselves to be less in control of their lives, which in turn amplified their reports of depression and anxiety. Similarly, the findings demonstrated that being financially strained decreased mothers' engagement in their role responsibilities, and heightened their experiences with depressive and anxious symptomatology. In addition, African American mothers' role responsibilities were further compromised by stressor pile-up

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when they engaged in fewer problem solving strategies and a lowered sense of control with which to manage stressors. Taken together, African American mother's decreased stress-coping behaviors and compromised role responsibilities amplified the occurrence of anxious and depressive symptoms in their lives. To the extent that mothers in the present study reported feeling worried, concerned, or "on edge", their overall physical health functioning was compromised as well.

On one hand, these results reify the findings of existing theoretical frameworks. Murry, Harrell, Black et al. (in review, 2006) for example, suggested that partnered African American mothers' psychological functioning is protected from the negative influence of stressors through the enlistment of proactive stress-coping behaviors. To this end, the mothers sampled in the present study, demonstrated that failure to talk to others about their problems, or conversely, attempting to avoid thinking about challenges contributed more to their episodes of worry, concern, and uneasiness in the presence of stressors. At the same time, these findings may also point to what Randolph (1997) refers to as the "game face" or the tendency for African American women to respond to stress by appearing poised on the surface while masking emotional distress within. What remains understudied, however, is the extent to which maintaining such a disposition undermines healthful behaviors and manifests in feelings of hopelessness, discouragement, or uneasiness. The results of the present study provide initial support for future examinations of this phenomenon.

Similarly, it is noteworthy that African American mothers assisted their children less with homework, were less familiar with their child's teacher, as well as lowered their participation in activities in churches, clubs, and neighborhoods as a result of feeling

financially burdened. In turn, they occasioned increased bouts of depressive and anxious symptoms, which resulted in lowered physical health. These results confirm the work of Jackson and Mustillo (2001) who suggest that inability to perform in roles may cause women to question their self-efficacy in managing family demands, and in turn, result in worry and concern about their participation in the family. In addition, the results demonstrate that role responsibilities were further compromised by stress and strain among mothers whom appeared to engage in lowered stress-coping behaviors, or conversely, employed the game face when confronted with stressors. These findings suggest several things. Namely, African American women may not relentlessly fulfill the needs of others as suggested in popular culture sources (Collins, 1991; Greene, 1994). Second, resorting to the 'game face' as a stress-response may be taxing to African American mothers, leaving them with less energy and effort to lend to existing role responsibilities (Nelson, 1995; Randolph, 1997; Roan, 2003; T. Williams, 2005). However, more attention to examinations of African American women's roles in families may be required to fully understand the extent to which their participation is linked to their health functioning. For example, what do African American women perceive as expectations for their role performance? What, if any, consequences might exist when these expectations are not met? The present study launched a preliminary investigation based upon these research questions. Using this insight, future studies should incorporate qualitative methodology to extract the meaning African American women attach to their roles in families and communities.

Limitations and Implications

Although the present study contributed to the growing body of literature lending possible explanations for health disparities among African American women it is not intended to be exhaustive. Models that include other parameters, religiosity, sociodemographics, and neighborhood location, for example, may further contribute to explanations of African American mothers' compromised health. Second, the present study relied on two indicators of mental health, yet only utilized one 2-question indicator for physical health. While future studies should consider a more complex and detailed assessment of African American women's health, the measure included in the present study appeared to capture African American women's physical health status astutely (for other examples see Black, Cook, Murry et al., 2006; Murry, Harrel, Black et al., 2006). Third, the present study created a new construct, Role Responsibilities, in order to assess the degree to which African American mothers' multiple roles influenced their health functioning status. While findings revealed provide insight into the salience of women's multiple roles on their daily functioning, the factor loadings for this construct were not strong. This points to the limitation of secondary data analysis, particularly the creation of a construct not originally intended for the existing data set. Future studies should consider developing a measure that captures African American mothers' perception of their role responsibilities, as well as the quality of the roles they fulfill. Example items might assess the amount of time, energy, effort, and task difficulty associated with each role in their lives. Further, looking outside traditional examinations of role domains and deconstructing African American women's involvement in varied locales (e.g. home, work, in addition to neighborhood, churches, civic organizations, etc.) may prove to be

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more reflective of the multidimensionality of their lives. Finally, the present study

utilized one wave of data to examine the implications of stress-coping behaviors and role

responsibilities in the lives of African American mothers. Assessing mothers at only one

point of data collection prevented the observation of long-term effects of stress-coping

behaviors and role responsibilities, or, examining whether the effects were salient across

time at all.

Despite these limitations, the results extend the knowledge base on African

American women's health functioning as it relates to stressors, stress management, and

role responsibilities. A greater goal of this study was to more fully illustrate the

sociohistorical and cultural context in which African American women's lives are nested.

While previous studies linked women's role performance to their degree of happiness,

personal satisfaction, and mental health functioning, these examinations tended to isolate

women from the social context in which they functioned. Therefore, evidence of this

phenomenon among non-European American women was sparse. The present study not

only initiated an examination of African American women's role responsibilities and

stress management, but it clearly delineated the ways in which living in a context that

prioritizes strength, resilience, and survivorship potentially influenced African American

women's role identities and daily life strategies. Future preventive-interventions may

gain from understanding the salience of sociocultural factors on African American

women's health behaviors, particularly the extent to which social identities such as the

superwoman and strong black woman intersect with African American women's

adherence to medical regimens, health behavior change, and overall self-care.

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Appendix A
Unmet Material Needs

The following statements concern your family's financial situation. For each statement, tell me if you strongly agree, agree, disagree, or strongly disagree.

1. My family has enough money to afford the type of home we need. Do you:

    1 = Strongly agree
    2 = Agree
    3 = Disagree
    4 = Strongly disagree

2. We have enough money to afford the type of clothing we need. Do you:

    1 = Strongly agree
    2 = Agree
    3 = Disagree
    4 = Strongly disagree

3. We have money to afford the kind of food we need. Do you:

    1 = Strongly agree
    2 = Agree
    3 = Disagree
    4 = Strongly disagree

4. We have enough money to afford the kind of medical care we need. Do you:

    1 = Strongly agree
    2 = Agree
    3 = Disagree
    4 = Strongly disagree

Appendix B
Inability to Make Ends Meet

1.   During the past 12 months, how much difficulty have you had paying your bills? Would you say...

            1   A great deal of difficulty
            2   Quite a bit of difficulty
            3   Some difficulty
            4   A little difficulty
            5   Or No difficulty at all

2.   Think again over the past 12 months. Generally, at the end of each month did you end up with...

            1   More than enough money left over
            2   Some money left over
            3   Just enough to make ends meet
            4   Almost enough to make ends meet
            5   Or Not enough to make ends meet

Role Conflict Scale

1.   How often do the demands of your job interfere with your family life? Is it...

         1 Often
         2 Sometimes
         3 Never

2.   How often do the demands of family life interfere with your work?

         1 Often
         2 Sometimes
         3 Never

Appendix D
Experiences of Discrimination Scale

An important part of this study is to learn about racial issues faced by the families in our study.

1.   How often has someone said something derogatory or insulting to you just because you are African American?
Has it been...

                1   Never
                2   Once or twice
                3   A few times
                4   Or several times

2.   How often has a store owner, sales clerk, or person working at a place of business treated you in a disrespectful way just because you are African American?
Has it been...

                1   Never
                2   Once or twice
                3   A few times
                4   Or several times

3.   How often have the police hassled you just because you are African American?
Has it been...

                1   Never
                2   Once or twice
                3   A few times
                4   Or several times

4.   How often has someone ignored you or excluded you from some activity just because you are African American? Has it been...

                1   Never
                2   Once or twice
                3   A few times
                4   Or several times

5.	How often has someone suspected you of doing something wrong just because you are African American? Has it been...

> 1	Never
> 2	Once or twice
> 3	A few times
> 4	Or several times

6.	How often has someone yelled a racial slur or racial insult at you? Has it been...

> 1	Never
> 2	Once or twice
> 3	A few times
> 4	Or several times

7.	How often has someone threatened to harm you physically just because you are African American? Has it been...

> 1	Never
> 2	Once or twice
> 3	A few times
> 4	Or several times

8.	How often have you encountered whites who are surprised that you as an African American person did something really well? Has it been...

> 1	Never
> 2	Once or twice
> 3	A few times
> 4	Or several times

9.	How often have you been treated unfairly because you are African American instead of white? Has it been...

> 1	Never
> 2	Once or twice
> 3	A few times
> 4	Or several times

10.   How often have you encountered whites who didn't expect you to do well just because you are African American? Has it been...

        1   Never
        2   Once or twice
        3   A few times
        4   Or several times

11.   How often has someone discouraged you from trying to achieve an important goal just because you are African American? Has it been...

        1   Never
        2   Once or twice
        3   A few times
        4   Or several times

12.   How often have close friends of your been treated unfairly just because they are African Americans? Has it been...

        1   Never
        2   Once or twice
        3   A few times
        4   Or several times

13.   How often have members of your family been treated unfairly just because they are African American? Has it been...

        1   Never
        2   Once or twice
        3   A few times
        4   Or several times

Appendix E
Morowsky and Ross Control Scale

Next I will read some statements about you. For each one, tell me if you strongly agree, agree, disagree, or strongly disagree.

1. There is really no way you can solve some of the problems you have. Do you...

        1 Strongly agree
        2 Agree
        3 Disagree
        4 Or Strongly disagree

2. Sometimes you feel that you are being pushed around in life. Do you...

        1 Strongly agree
        2 Agree
        3 Disagree
        4 Or Strongly disagree

3. You have little control over the things that happen to you. Do you...

        1 Strongly agree
        2 Agree
        3 Disagree
        4 Or Strongly disagree

4. You can do just about anything you really set your mind to. Do you...

        1 Strongly agree
        2 Agree
        3 Disagree
        4 Or Strongly disagree

5. You often feel helpless in dealing with the problems of life. Do you...

        1 Strongly agree
        2 Agree
        3 Disagree

4 Or Strongly disagree

6. What happens to you in the future mostly depends on you.   Do you...

        1 Strongly agree
        2 Agree
        3 Disagree
        4 Or Strongly disagree

7. There is little you can do to change many of the important things in your life. Do you...

        1 Strongly agree
        2 Agree
        3 Disagree
        4 Or Strongly disagree

Problem-Solving Strategies Scale

1. When you have a problem, you try to figure out the cause and do something about it. Do
   you...

   1 Strongly agree
   2 Agree
   3 Disagree
   4 Or Strongly disagree

2. When you have a problem, you try to do things that will keep you from thinking
   about it. Do you...

   1 Strongly agree
   2 Agree
   3 Disagree
   4 Strongly disagree

3. When you have a problem, you try to forget about it. Do you...

   1 Strongly agree
   2 Agree
   3 Disagree
   4 Or Strongly disagree

4. When you have a problem, you usually talk to other people about it. Do you...

   1 Strongly agree
   2 Agree
   3 Disagree
   4 Or Strongly disagree

Maternal School-Related Responsibilities

Parental Involvement in School Work subscale of Family Routines Scale
    1. How often do you talk to (target child) about (his/her) schoolwork?
    2. How often do you help (target child) with (his/her) schoolwork?

Parental Monitoring Scale
    1. How often do you know what (target child) does after school?
    3. How often do you know where (target child) is and what (he/she) is doing?
    4. How often do you know how well (target child) is doing in school?
    5. How often do you know if (target child) is doing something wrong)?

Familiarity with Target's Teacher
    1. How well do you know (target child's) teacher?
    2. How often do you talk with (target child's) teacher?

Appendix H
Community-Related Responsibilities

Religious Activities
1. How often in the past month did you attend church services?
2. How often in the past month did you attend social events with other members of your church?
3. How often in the past month did you lead a religious service?
4. How often in the past month did you teach Sunday school class or a class on religion?
5. How often in the past month did you attend a class or discussion group on religion?

Club Membership items
1. How many different groups do you belong to?
2. Thinking of all the organizations, clubs, or groups you belong to, how often do you attend meetings or gatherings of these groups?
3. How many organizations are you currently an officer, a member of the board, or a committee member?

Neighborhood Cohesion subscale for Community Affiliation scale
1. About how often do you and people in your neighborhood do favors for each other?
2. When a neighbor is not home, how often do you and other neighbors watch over their property?

Appendix I
Mini Mood and Anxiety Symptom Questionnaire (General Distress Depression Subscale)

Next, I will be asking you how much you have felt or experienced each of the following during the past week. Has it been not at all, somewhat or extremely? How much have you...

1.   Felt depressed? Was it...

        1   Not al all
        2   Somewhat
        3   Or extremely

During the past week, how much have you...

2.   Felt discouraged? Was it...

        1   Not at all
        2   Somewhat
        3   Or extremely

During the past week, how much have you...

3.   Felt hopeless? Was it...

        1   Not at all
        2   Somewhat
        3   Or extremely

During the past week, how much have you...

4.   Felt like a failure? Was it...

        1   Not at all
        2   Somewhat
        3   Or extremely

During the past week, how much have you...

5.   Felt worthless? Was it...

1   Not at all
2   Somewhat
3   Or extremely

Appendix J
Mini Mood and Anxiety Symptom Questionnaire (General Distress Anxiety Subscale)

During the past week, how much have you...

1.   Felt tense or "high strung"? Was it...

        1   Not at all
        2   Somewhat
        3   Or extremely

During the past week, how much have you...

2.   Felt uneasy? Was it...

        1   Not at all
        2   Somewhat
        3   Or extremely

During the past week, how much have you...

3.   Felt keyed up, "on edge"? Was it...

        1   Not at all
        2   Somewhat
        3   Or extremely

Physical Health Questionnaire

1.   In general, would you say your physical health is excellent, very good, good,

       fair or poor?

2.   Compared to one year ago, would you say your physical health is much better,

       somewhat better, about the same, somewhat worse, or much worse?