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## THE COST OF BEING A “STRONG BLACK WOMAN”

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THE COST OF BEING A “STRONG BLACK WOMAN”

A Dissertation presented in partial fulfillment of the requirements for the degree of Doctor of  
Philosophy in Community Psychology

Presented to

The Department of Psychology

DePaul University

BY

Alescia Maraboushontrell Hollowell

January 24, 2019

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### **Acknowledgements**

I would like to dedicate this dissertation to my parents, Dr. Ulysses O. Hollowell Jr. and Karen A. Watkins-Hollowell. Thank you for the love, care, and sacrifices that you made for me to make it to this point. I would like to also express my sincere appreciation to my dissertation chair, Dr. Jocelyn Smith Carter, for her support and encouragement throughout this process.

## **Biography**

The author was born in Detroit, Michigan, July 19, 1987. She graduated from Lewis Cass Technical High School, in Detroit. She received her Bachelor of Science degree from Michigan State University in 2009, her Master of Public Health degree in Health Behavior and Health Education from the University of Michigan in 2012, and her Master of Arts degree in Community Psychology in 2015.

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## ABSTRACT

The current study explored how internalization of the Strong Black Woman (SBW) race-gender ideology contributes to poor health behaviors and outcomes in Black women. The SBW ideology is associated with maladaptive eating patterns and psychological distress, but less is known about the other physical health implications of this endorsement. The current study sought to better understand the mechanisms that contribute to this relationship and examine the association between endorsement of the SBW ideology and outcomes of physical activity and eating behaviors, weight satisfaction, and depression. Participants were 91 African American women aged 18-65 years recruited from the south and west sides of Chicago, IL. Bivariate correlations and regression analyses were conducted to examine study hypotheses. Results found that obligation to manifest strength was the SBW construct most associated with poor health behaviors and outcomes. More specifically, chronic stress mediated the relationship between obligation to manifest strength and depression. The results of this research provide insight into the psychological and social processes affecting Black women in effort to help reduce the development of chronic diseases in Black women and aid in the development of culturally-responsive prevention and intervention programs at individual- and community- levels.

## CHAPTER I: INTRODUCTION

Black women are highly susceptible to morbidity and mortality associated with chronic diseases such as cardiovascular diseases, obesity, and hypertension compared to their non-Black women counterparts (CDC, 2016; Office of Disease Prevention and Health Promotion, 2018; Priest & Anderson, 2016; Williams, Priest, & Anderson, 2016). The prevalence rates of cardiovascular diseases, obesity, and hypertension among Black women aged 20 years and over are 49% (American Heart Association, 2019), 82% (U.S. Department of Health & Human Services, 2017), and 44% (U.S. Department of Health & Human Services, 2016) respectively. Whereas, the prevalence rates of these chronic diseases in white woman are 32%, 64% (U.S. Department of Health & Human Services, 2017), and 28% (U.S. Department of Health & Human Services, 2016) respectively. Depression, on the other hand, is a chronic disease that is silently affecting Black women but is often misdiagnosed, underdiagnosed and/or untreated (Bailey, Blackmon, & Stevens, 2009; Ialongo, McCreary, Pearson, Koenig, Schmidt, Poduska, et al., 2004). The prevalence rate of depression is higher among women 8.5% than men 4.8% (National Institute of Mental Health, 2017). Research has found that depression is positively correlated with chronic diseases such as cardiovascular diseases (Lewis, Everson-Rose, Colvin, Matthews, Bromberger, Sutton-Tyrrell, 2009), diabetes (Anderson, Freedland, Clouse, & Lustman, 2001), and obesity (Carter & Assari, 2017; Pratt & Brody, 2014).

Lewis and colleagues (2009) studied the relationship between race, depressive symptoms and indicators of coronary heart disease among 508 Black and White women. The results of their study found a significant association between depressive symptoms and aortic calcification in Black women. Similarly, Copeland et al. (2017) found that Black women who had been diagnosed with major depressive disorder were almost two times more likely to have

cardiovascular disease compared to those who did not have major depressive disorder. In their study of American adults over the age of 20 using data from the National Health and Nutrition Examination Surveys (NHANES) 2005-2010, Pratt and Brody (2014) found that 55.6 percent of Black women with depression were also obese.

Black feminist scholars argue that the intersected race-gender identities of Black women contribute to their depression and thus their disproportionate chronic disease outcomes. More specifically, scholars point to the strength narrative, a key component of the SBW/Black superwoman schema, as a key risk factor (Campbell, 2017).

### **Theoretical Framework**

The term SBW represents a race-gender ideology that provides information about how Black women enact their intersected race and gender identities through strength, perseverance, and service (Harris-Perry, 2011; Settles, Pratt-Hyatt, and Buchanan, 2008; Woods-Giscombe, 2010). Adoption of the SBW race-gender ideology is thought to serve as a behavioral counter to the false stereotypes of Black womanhood (Harris-Lacewell, 2001; Thomas, Witherspoon, & Speight, 2004). Darlene Clark Hine (1989) describes this behavioral adoption as a culture of dissemblance. Hine defines dissemblance as “the behavior and attitudes of Black women that created the appearance of openness and disclosure but actually shielded the truth of their inner lives and selves from their oppressors” (Hine, 1989; p. 912). In other words, Hine (1989) explains that as a method of psychological survival Black women created alternative self-images, such as the SBW/Black superwoman, to counter false narratives of Black womanhood created by their oppressors.

Living up to the expectation of these titles is filled with challenges. To be a SBW/Black superwoman is a badge of honor, but it often comes with sadness, hopelessness, worthlessness

and feelings that everything is an effort (Schiller, Lucas, & Peregoy, 2012). Abrams, Maxwell, Pope and Belgrave (2014) conducted a study to better understand how Black women conceptualize strength and define the roles of a strong Black woman. This qualitative study conducted eight focus groups with a total of 44 Black women between the ages of 18 and 91. The results of the study found four main themes that characterized being a SBW: embodies and displays multiple forms of strength, possesses self/ethnic pride in spite of intersectional oppression, embraces being every woman, and anchored by religion/spirituality (Abrams et al., 2014).

Similarly, superwoman schema describes five main qualities of Black womanhood: 1) obligation to manifest strength, 2) obligation to suppress emotions, 3) resistance to be vulnerable or dependent, 4) determination to succeed despite limited resources, and 5) obligation to help others (Woods-Giscombe', 2010). Often used interchangeably with the SBW race-gender ideology, the Superwoman schema gives insight to the lived experience of Black womanhood and helps us to better understand this race-gender bind. Black feminist scholars have studied the uniqueness of Black womanhood, but this is still a growing field of study, especially as it relates to physical health outcomes. The next few paragraphs will address the relationship between each of the Superwoman schema constructs and Black women's experiences and health outcomes.

The first quality suggests that Black women present an image of strength in all aspects of their lives out of necessity. Historically, Black women's strength served as justification for their enslavement (West, 2015). However, for today's Black woman, expressing strength is a representation of her Black femininity. In other words, displaying strength, especially in arduous times, is a symbolic rite of passage into "true" Black womanhood. Many Black women, especially Black mothers, subscribe to this notion of strength (Nelson, Cardemil, & Adeoye,

2016). Research has found negative psychological outcomes such as maladaptive coping (Harrington, Crowther, & Shipherd, 2010) and elevated stress (Beauboeuf-Lafontant, 2005; Black & Woods-Giscombe, 2012) to be associated with this endorsement.

Similar to the first construct obligation to suppress emotions deals with Black women's resistance to expressing emotions for fear of being criticized for showing weakness (Woods-Giscombe', 2010). Since strength is paramount to Black womanhood, emotional suppression often occurs in the home, office, and other spaces where Black women are actively engaged. Emotional releases are usually reserved for prayer or within trusted, non-judgmental circles of friendship (El-khoury, Dutton, Goodman, Engel, Belamaric, & Murphy, 2004; Gibbs & Fuery, 1994). For example, in their study of Black and White women who are survivors of interpersonal violence, El-Khoury et al. (2004) found that Black women are more likely to use prayer as a coping strategy and perceive it as being helpful than are White women. Emotional suppression may also be associated with delayed help-seeking.

The third construct, resistance to being vulnerable or dependent, is associated with feelings of needing to be in charge or in control of situations. In their study of Black women, Nelson, Cardemil, and Adeoye (2016) found that study participants believed independence was a necessary trait for strong Black women/superwomen given all that they endure. West, Donovan, and Daniel (2016) found that independence extended to both financial and romantic parts of Black women's lives. To be financially independent may require working multiple jobs, which limits the amount of downtime to engage in health promoting behaviors or even self-care.

The fourth construct, determination to succeed despite limited resources, speaks to the drive and motivation of Black women to persevere in the face of insurmountable challenge. According to U.S. Census data, Black women are more likely to be poor and head single-parent

households compared to White women (Campbell & DeWeever, 2015). Residing in urban, high-poverty areas is correlated with decreased access to resources for healthy living such as grocery stores, public parks, and health care facilities (Salois, 2012; Sandy, Tchernis, Wilson, Liu, & Zhou, 2012). Social and environmental factors such as segregation and food culture pose as barriers for meeting basic needs, especially for those who are disadvantaged. Consequently, Black women make important decisions to satisfy the needs of self and family while experiencing financial hardships. Often times these decisions are based on convenience and adaptive functioning rather than health promotion.

Finally, obligation to help others speaks to the expectation of selflessness for Black women. In their study of 44 Black women, Abrams, Maxwell, Pope, and Belgrave (2014) found that 70% of their sample felt obligated to care for others. Black women hold many roles and responsibilities and often feel that they have to do any and everything to for those in their care or whom they care about (Abrams, Maxwell, Pope, & Belgrave, 2014). This expectation can lead to Black women feeling overwhelmed. Research has found that this characteristic can impact Black women's ability to engage in self-care (Abrams, Maxwell, Pope, & Belgrave, 2014; Black & Woods-Giscombe, 2012)

### **Black Womanhood and Health**

A number of studies have explored the relationship between the Strong Black Woman/Black superwoman schema and depression (Beauboeuf-Lafontant, 2007; Black & Woods-Giscombe, 2012; Campbell, 2017; Donovan & West, 2014; Donovan & Daniel, 2016; Jones and Shorter-Gooden, 2003; Watson & Hunter, 2015; Watson-Singleton, 2017; Woods-Giscombe, 2010; Woods-Giscombe, Robinson, Carthon, Devane-Johnson, & Corbie-Smith, 2016) and chronic health conditions (Black & Woods-Giscombe, 2012; Harrington, Crowther, &

Shipherd, 2010) in Black Women. The following paragraphs will discuss these studies and examine the relationships.

### **Strength Narrative and Depression**

Research has found that endorsing being a “SBW” was 1) both a risk and protective factor for health and well-being and 2) associated with compulsive overeating and depressive episodes (Abrams, Maxwell, Pope, & Belgrave, 2014; Beauboeuf-Lafontant, 2007; Campbell, 2017, Donovan & West, 2014; Nicolaidis et al., 2010). In a qualitative study of 17 Black men and women aged 21-57, Campbell (2017) explored factors influencing disparities in symptoms of depression and help seeking. Findings of this study revealed that Black people’s experiences of depression are influenced by the sociocultural and historical context, specifically the strength narrative and resistance to being vulnerable that cause them to stigmatize depression (Campbell, 2017). The study also found that Black Americans are highly likely to self-diagnose, delay help-seeking and delay treatment for depression (Campbell, 2017).

Donovan and West (2014) explored how endorsement of the SBW ideology influences the relationship between stress and mental health outcomes among Black female college students (n=92) in which they found that endorsement of the SBW ideology at moderate and high levels strengthen the relationship between stress and depressive symptoms. Donovan and West (2014) measured SBW endorsement using the stereotypic roles of Black women scale. Similarly, Watson and Hunter (2015) found endorsement of the SBW race-gender ideology to predict anxiety and depression in African American women between the ages of 18 and 65 years. In a follow-up study, Watson-Singleton (2017) examined if perceived emotional support mediates the relationship between the strong black woman schema and psychological distress in Black women. Participants were 158 Black women aged 18 to 59 who were recruited from a university



psychology subject pool and amazon mechanical turk. Results of the study revealed a positive association between SBW schema and psychological distress, a negative association between SBW schema and perceived emotional support, a negative association between perceived emotional support and psychological distress, and partial mediation of perceived social support on the relationship between the SBW schema and psychological distress.

Research also reflects on the sisterella complex and superwoman schema. Jones and Shorter-Gooden (2003) sought to better understand the experience of depression in Black women. The results of their qualitative study led to the development of the sisterella complex. Coined after the fairytale princess Cinderella, the “sisterella” complex which posits that Black women are over consumed with caring for others that they neglect to care for themselves (Jones & Shorter-Gooden, 2003). It is thought that this neglect manifests into forms of depression. Sisterella complex is often thought of as functional depression in Black women (Jones & Shorter-Gooden, 2003). Those who endorse this ideology suffer quietly while operating under a mask of strength.

Lastly, Woods-Giscombe, Robinson, Carthon, Devane-Johnson, and Corbie-Smith (2016) performed a secondary analysis of Woods-Giscombe (2010) in order to better understand the factors that influence Black women’s perceptions and use of mental health services. The sample included eight focus groups containing a total of 48 participants aged 19 to 72 years. The results of this study found that the five constructs of the superwomen schema along with perceived stigma, religious and spiritual concerns, and a desire for mental health providers who understood Black women’s experiences influenced utilization of mental health services (Woods-Giscombe et al., 2016).

### **Strength Narrative and Chronic Health Conditions**

Black and Woods-Giscombe (2012) explored how endorsement of the strong Black woman ideal, particularly aspects of stress and strength, affected breast cancer screenings in Black women. The researchers performed secondary analysis on three sources of data: popular media and social media data from Black and Peacock (2011), and focus group transcripts from Woods-Giscombe (2010) in order to 1) ascertain reasons for delays in preventative cancer care and 2) understand race-gender stressors present in Black women's lives. The results of the study found the Black women believed that excluding self care was inherent to being a SBW, caring for others often led to a delay in scheduling and attending preventative health appointments, and emotional suppression was linked to delayed preventative screenings and late-stage diagnosis (Black and Woods-Giscombe, 2012).

Harrington, Crowther, and Shipherd (2010) found an association between internalization of the SBW race-gender ideology and binge eating. In their study of Black female trauma survivors (N = 179), Harrington and colleagues explored how exposure to trauma related to binge eating in Black women. They found exposure to trauma and distress to predict greater internalization of the SBW race-gender ideology (Harrington et al., 2010). The researchers also found that internalization of the SBW race-gender ideology was associated with emotional inhibition and eating for psychological reasons in African American female trauma survivors (Harrington et al., 2010).

### **The Current Study**

Stress may help to explain the link between endorsement of the SBW ideology and health outcomes in Black women. Based on information from the superwoman schema, the inherent nature of being a Black woman can increase risk for psychological distress (Abrams, Maxwell, Pope, & Belgrave, 2014; Beauboeuf-Lafontant, 2007). The experience of stress is a normal part

of life. However, for Black women with multiple roles including mother, spouse, and caretaker, stress becomes a chronic condition that is exacerbated by her drive to fulfill the demands of being a superwoman. Chronic stress refers to long-term and ongoing events that impact the body's stress response system leading to continuous arousal and the release of stress hormones (American Psychological Association, 2013). Under normal circumstances, exposure to stress activates the sympathetic nervous system (SNS) and our "fight or flight" response takes action. Physiologically we experience an increased heart rate, breathing, blood pressure, and focus with the activation of this system. However, once the stressor has been removed the parasympathetic nervous system (PNS) steps in to reverse the effects and bring our bodies back to a resting or calm state. The SNS and PNS work together to regulate our body's response to stress. However, chronic stress creates an imbalance in our body since the continuous activation of our SNS through chronic stress does not allow for the PNS to do its job. Chronic stress has been found to lead to cardiovascular diseases such as heart disease and hypertension, which disproportionately affect Black women (CDC, 2016; Roger et al. 2012; Warren-Findlow, 2006; Williams & Cashion, 2008).

Research supports the notion that chronic stress takes a greater toll on Black women than white women (McIlvane, Baker, & Mingo, 2008; Troxel, Matthews, Bromberger & Sutton-Tyrrell, 2003). For example, the weathering hypothesis explains that Black women are more vulnerable to premature health deterioration as a result of exposure to chronic stress related to socioeconomic disadvantage (Geronimus, 1992). Examples of this type of chronic stress include living in an unsafe neighborhood, poverty, or exposure to gender or racial discrimination. In their work exploring the relationship between socioeconomic status and morbidity and mortality, Evans, Chen, Miller, and Seeman (2012) explain that poverty contributes to elevated blood

pressure and higher levels of allostatic load. Allostatic load is important because it addresses the physiological consequences of chronic stress on the body. Geronimus, Hicken, Keene, and Bound (2006) found that Black women, both poor and nonpoor, had the highest probability of high allostatic loads compared to their male and/or White counterparts. The weathering effects of chronic stress negatively impact Black women as it increases the risk of morbidity and even mortality.

Body image, particularly weight-related issues, may also help to explain the link between endorsement of the SBW ideology and health outcomes in Black women. Body image is a multidimensional construct consisting of both social and cultural standards relating to one's perceptions, feelings, and thoughts about their body (Bergstrom & Neighbors, 2006; Grogan, 2006; Rudd & Lennon, 2001). According to the Theory of Reasoned Action, social norms are informal rules for acceptable behavior that influence health behaviors and outcomes (Fishbein & Ajzen, 1967; Sriram, Morgan, Graham, Folta, & Seguin, 2018). Within the African American community, there are social and cultural norms about body image that may have implications for health beliefs and behaviors (Cameron, Muldrow, & Stefani, 2018).

Body image ideals shape the perception of weight and influence weight-related health behaviors. In current western society, thinness is the body image ideal for women. However, research supports the notion that Black women reject this ideal (Fujioka et al. 2009; Henrickson et al., 2010; Lynch & Kane, 2014; Sheldon & Foster, 2016). Research on racial/ethnic differences in body image has revealed key differences between Black and White women. For example, Black women have been found less likely to internalize the thin-ideal and to report heavier body sizes as ideal compared to their White counterparts (Kemper, Sargent, Drane, Valois, & Hussey, 1994). Moreover, Black women have been found to report significantly less

body dissatisfaction than White women (Paeratakul et al., 2002; Roberts, Cash, Feingold, & Johnson, 2006; Schooler et. al, 2004). The results of these studies suggest that failing to internalize thin ideals is protective against weight-related mental health determinants for Black women. However, the preference for heavier body sizes could influence decreased levels of engagement in health promoting behaviors such as physical activity and healthy eating especially since research supports that notion that Black women feel less pressure to be thin based on cultural standards (Sheldon & Foster, 2016).

Black women who endorse the SBW/Black superwoman ideology may adhere to its behavioral characteristics such as putting the needs of others before their own or suppressing emotions. As such, engaging in health promoting behaviors like physical activity or preventative health screenings may fall by the wayside for some Black women. Endorsement of the SBW ideology or the superwoman schema coupled with sociocultural norms around body image in Black women may explain why Black women are disproportionately affected by chronic health conditions that can be prevented through modifiable health behaviors. The SBW ideology is associated with maladaptive eating patterns and psychological distress, but less is known about the specific mechanisms that contribute to these relationships. The purpose of this study was to examine the association between endorsement of the SBW ideology and outcomes of physical activity and eating behaviors, weight satisfaction, and depression. This study also sought to understand which constructs of the SBW ideology are related to negative health outcomes and if stress and weight satisfaction mediate the relationship between SBW endorsement and health outcomes.

## **Rationale**

The current study contributes to the literature as it helps to fill the gaps in our knowledge of sociocultural influences on the health behaviors and outcomes of Black women. Limited research examines the link between sociocultural influences and endorsement of the superwoman schema on health behaviors and outcomes of Black women. Understanding how the various aspects of Black womanhood shape health behaviors can help researchers develop interventions and practices that promote health and well-being among Black woman. Disproportionately affected by cardiovascular diseases such as heart disease and hypertension, Black women are in need of innovative, specialized care programs. Interventions that have taken a culturally tailored approach to promoting health and well-being of Black women have proved to be effective (Brewer, Balls-Berry, Dean, Lackore, & Jenkins, 2016; Joseph et al., 2016; Liao et al, 2016; Risica, Gans, Kumanyika, Kirtania, & Lasater, 2013; Wagner, Bogart, Mutchler, McDavitt, Mutepfa, & Risley, 2016). For example, Risica, Gans, Kumanyika, Kirtania, and Lasater (2013) found that a culturally tailored weight control program delivered through a cable television was effective at lowering body mass index (BMI), weight, dietary fat and increasing physical activity behaviors. The current study seeks to better understand this area with hopes of improving the health outcomes of Black women.

### **Statement of Hypotheses**

Hypothesis I. Endorsement of SBW constructs obligation to manifest strength, obligation to suppress emotions and obligation to help others will be negatively associated with engagement in health-promoting behaviors, particularly healthy eating and physical activity in Black women.

Hypothesis II. Chronic stress will be a positively associated with endorsement of obligation to manifest strength in Black women.

Hypothesis III. There will be a negative relationship between weight satisfaction and depression such that Black women who are less satisfied with their weight will be more likely to report experiences of depression.

Hypothesis IV. There will be a positive relationship between chronic stress and depression such that Black women who are more likely to report experiencing chronic stress will be more like to report experiences of depression.

Hypothesis V. There will be a positive association between obligation to manifest strength and depression such that those who endorse strength will be more likely to report experiences of depression.

Hypothesis VI. Weight satisfaction will mediate the relationship between obligation to manifest strength and depression in Black women.

Hypothesis VII. Chronic stress will mediate the relationship between obligation to manifest strength and depression in Black women.

## CHAPTER II: METHOD

The current study explored the role of the SBW race-gender ideology on the health-related attitudes, behaviors and outcomes of Black women. Researchers at DePaul University used quantitative data to examine research hypotheses.

**Research participants.** Participants were ninety-one women recruited through flyers, social and professional networks, and word of mouth. The majority of the sample (98.9%;  $n = 90$ ) identified as Black or African American and 1.1% ( $n = 1$ ) identified as mixed race. Purposive sampling was used to obtain a sample of women who are diverse in age, education, and experiences. The age breakdown of the participants was: 2.2% ( $n = 2$ ) 18-20, 16.5% ( $n = 15$ ) 21-29, 25.3% ( $n = 23$ ) 30-39, 19.8% ( $n = 18$ ) 40-49, 23.1% ( $n = 21$ ) 50-59, 13.2% ( $n = 12$ ) 60 or older. Those who expressed interest in participating in the study completed a 45-minute study session. Study sessions were held in private rooms in community spaces, participants' homes, or in classrooms on the campus of DePaul University. Participants were provided with a \$20 gift card for participation.

### Materials

**Demographics.** Age, gender, race/ethnicity, employment, annual household income, and health history were collected using a standard questionnaire.

**Obligation to manifest strength.** The eleven-item Superwoman subscale of the *Stereotypic Roles of Black Women Scale* (SRBWS; Thomas, Witherspoon, & Speight, 2004) was used to assess internalization of the SBW race-gender ideology construct "obligation to manifest strength." Scale items included: "*I find it difficult to ask others for help,*" *Black women have to be strong to survive*", and "*I am overworked, overwhelmed, and/or underappreciated.*" Participants were asked to rate their agreement with each statement on a 5-point scale ranging



from 1 (strongly disagree) to 5 (strongly agree). Higher scores represent stronger internalization of the strong Black woman race-gender ideology. The Cronbach's alpha for the sample was .66 indicating moderate internal consistency.

**Emotional suppression** was measured by examining the four-item expressive suppression subscale of the 10-item *Emotion Regulation Questionnaire* (ERQ; Gross & John, 2003). Scale items include “*I control my emotions by not expressing them*” and “*I keep my emotions to myself.*” Participants were asked to rate their agreement with each statement about their tendency to regulate emotions on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). Higher scores indicate greater emotional suppression. The alpha coefficient of the scale was .74 indicating good internal consistency.

**Resistance to vulnerability/dependency** was assessed using the six-item *Efficacy of Help-Seeking Scale* (EHSS; Eckenrode, 1983). Sample items include: “*Admitting hardships to others is a sign of weakness*” and “*Accepting help from others makes you feel like you owe them something in return.*” Participants were asked to rate their agreement with each statement on a four-point Likert scale, ranging from 1 (strongly agree) to 4 (strongly disagree). Lower scores indicate lower efficacy or benefits of seeking and/or accepting help. The alpha coefficient for this scale was .64 indicating moderate internal consistency.

**Determination to succeed despite limited resources** was assessed using the 28-item *Self Rated Abilities for Health Practices Scale* (SRAHP; Becker, Stuijbergen, Oh, & Hall, 1993). Participants were asked to rate their ability to complete health activities on a five-point Likert scale, ranging from 0 (not at all) to 4 (completely). Sample items include “*I am able to find foods that are within my budget*” and “*I am able to change things in my life to reduce my*

*stress.*” Higher scores indicate higher determination to succeed at health-related activities. The alpha coefficient for this scale was .95 indicating good internal consistency.

**Obligation to help others** was assessed using the five-item Mammy subscale of the *Stereotypic Roles of Black Women Scale* (SRBWS; Thomas, Witherspoon, & Speight, 2004). Scale items included: “*People often expect me to take care of them*” and “*I feel guilty when I put my own needs before others.*” Participants were asked to rate their agreement with each statement on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores indicate greater feelings of obligation to help others. The alpha coefficient for this scale was .72 indicating good internal consistency.

**Chronic stress** was assessed using the 14-item *Perceived Stress Scale* (PSS; Cohen, Kamarck, & Mermelstein, 1983). Scale items include: “*In the last month, how often have you been upset because of something that happened unexpectedly*” and “*In the last month, how often have you felt nervous and stressed.*” Participants were asked to indicate how often they have felt a certain way on a 5-point scale ranging from 0 (never) to 4 (very often). Higher scores indicate greater stress. The alpha coefficient for this scale was .77 indicating good internal consistency.

**Weight satisfaction** was measured using three items from the *Project F-EAT survey* (Bauer, Hearst, Escoto, Berge, & Neumark-Sztainer, 2012; Berge et al., 2012; Bruening, MacLehose, Loth, Story, & Neumark-Sztainer, 2012). A sample item included: “*How satisfied are you with your weight?*” Answers were given along a five-point scale, ranging from “very dissatisfied” to “very satisfied.” Higher scores indicate greater satisfaction with weight. The alpha coefficient for this scale was .84 indicating good internal consistency.

**Physical activity** was measured by examining three-items assessing the frequency of engaging in different physical activities throughout the past week from the *Project F-EAT*

**Survey** (Bruening, MacLehose, Loth, Story, & Neumark-Sztainer, 2012). These items include:

(1) *“In a usual week how many hours do you spend doing the following activities: Strenuous exercise (heart beats rapidly) Examples: biking fast, aerobic dance, running, jogging, swimming laps, rollerblading, skating, lacrosse, tennis, cross-country skiing, soccer, basketball, football?”*

(2) *“In a usual week how many hours do you spend doing the following activities: Moderate exercise (not exhausting). Examples: walking quickly, dancing, baseball/softball, easy biking, volleyball, strength training, skiing, snowboarding?”* and *“In a usual week how many hours do you spend doing the following activities: Mild exercise (little effort). Examples: walking slowly, bowling, golf, fishing, snowmobiling, yoga.”* Items were scored on a 6-point response scale and responses ranged from 0 (none) to 6 (6+ hours). A composite score was obtained by combining the items and dividing scores by three. Higher average scores indicated higher frequency of physical activity. The alpha coefficient for this scale was .69 indicating moderate internal consistency.

**Healthy eating** was measured by examining three-items that assessed the frequency of fruit or vegetable consumption from the *Project F-EAT Survey* (Bruening, MacLehose, Loth, Story, & Neumark-Sztainer, 2012). These items include: *“Is fruit (not including juice) served”*, *“Are vegetables other than potatoes served”* and *“Is a green salad served.”* Items were scored on a four-point response scale with responses ranging from 1 (never or rarely) to 4 (always). A composite score was obtained by combining the items and dividing scores by three. Higher average scores indicate higher frequency of healthy eating. The alpha coefficient for this scale was .30 indicating poor internal consistency.

**Depression.** The ten-item Center for Epidemiological Studies – Depression (CES-D) Short Form was used to assess emotional functioning including sadness and low energy. Scale

items include: *“I was bothered by things that usually don’t bother me”* and *“I had trouble keeping my mind on what I was doing.”* Participants were asked to rate their agreement with each statement on a 4-point scale ranging from 1 (rarely or none of the time ) to 4 (most or all of the time). Higher scores indicate the presence of more depressive symptomatology. The alpha coefficient for this scale was .83 indicating good internal consistency.

**Blood pressure status** was measured using Omron 3 Series upper arm blood pressure monitors. Blood pressure consists of two measurements, systolic blood pressure and diastolic blood pressure, both measured in millimeter of mercury (mmHg). “Systolic blood pressure refers to arterial pressure during the contraction of the heart, while diastolic pressure refers to arterial pressure between beats when the heart fills with oxygenated blood from the lungs and deoxygenated blood from rest of the body” (Al-Bayan, Islam, Edwards, & Duncan, 2016). Normal blood pressure is being defined as a systolic blood pressure less than 120 mmHg and a diastolic blood pressure less than 80 mmHg. Pre-hypertension is defined as a systolic blood pressure between 120–139 mmHg and a diastolic blood pressure between 80–89 mmHg. Hypertension is defined as a systolic blood pressure greater than 140 mmHg and a diastolic blood pressure greater than 90 mmHg.

**Weight status.** Height and weight were measured using a digital scale and stadiometer at the end of the questionnaire session so that measuring weight has no effect on measurement completion. Participants were measured in light clothing and without shoes. All participants were measured and weighed twice. The weights and heights were then averaged to determine final values. BMI scores were calculated using the U.S. Department of Health & Human Services electronic BMI calculator. Underweight is defined as having a BMI below 18.5. Normal weight

is defined as having a BMI between 18.5 and 24.9. Overweight is defined as having a BMI between 25 and 29.9. Obese is defined as having a BMI of 30 or above.

**Procedure.** The institutional review board of the university approved the study. Participants were asked to attend a 45-minute session to review the consent forms, provide written informed consent, and complete study questionnaires related to Black womanhood and the barriers and facilitators to healthy living. A member of the research team read the consent form to the participant after providing the individual with a copy. After the reading, participants were provided an opportunity to ask questions about the consent process and the research process, and then sign the consent document. Research assistants collected consent forms from each participant. As they collected the forms, the research assistants assessed their understanding using the questions on the consent document. Research assistants assigned a unique ID number to each participant for confidentiality purposes. Using the newly assigned unique ID number, research assistants distributed study surveys to each participant for completion. Finally, participants' height, weight, and blood pressure were taken and recorded and participants were compensated for their participation.

### **Analytic Plan**

Descriptive statistics of the demographic variables were computed to provide detailed information about the sample. Bivariate correlations were conducted among all variables to determine associations. This study is interested in exploring: the association between the SBW constructs (obligation to manifest strength, obligation to suppress emotions, resistance to being vulnerable or dependent, determination to succeed despite limited resources, and obligation to help others) and health behaviors and outcomes, more specifically physical activity, healthy eating, depression, weight satisfaction, and chronic stress.

***Hypothesis I. Endorsement of SBW constructs obligation to manifest strength, obligation to suppress emotions and obligation to help others will be negatively associated with engagement in health-promoting behaviors, particularly healthy eating and physical activity in Black women.*** In order to test the first hypothesis, bivariate correlations were conducted using SPSS 25.0. Associations were supported if there was a significant Pearson  $r$  value. Strength and direction of association were also examined.

***Hypothesis II. Chronic stress will be a positively associated with endorsement of obligation to manifest strength in Black women.*** To test this hypothesis, bivariate correlations were conducted using SPSS 25.0. Associations were supported if there was a significant Pearson  $r$  value. Strength and direction of association were also examined.

***Hypothesis III. There will be a negative relationship between weight satisfaction and depression such that Black women who are less satisfied with their weight will be more likely to report experiences of depression.*** Bivariate correlations were conducted using SPSS 25.0 to test this hypothesis. Associations were supported if there was a significant Pearson  $r$  value. Strength and direction of association were also examined.

***Hypothesis IV. There will be a positive relationship between chronic stress and depression such that Black women who are more likely to report experiencing chronic stress will be more like to report experiences of depression.*** Bivariate correlations were conducted using SPSS 25.0 to test this hypothesis. Associations were supported if there was a significant Pearson  $r$  value. Strength and direction of association were also examined.

***Hypothesis V. There will be a positive association between obligation to manifest strength and depression such that those who endorse strength will be more likely to report experiences of depression.*** Bivariate correlations were conducted using SPSS 25.0 to test this

hypothesis. Associations were supported if there was a significant Pearson  $r$  value. Strength and direction of association were also examined.

***Hypothesis VI. Weight satisfaction will mediate the relationship between obligation to manifest strength and depression in Black women.*** To test this hypothesis, a multiple regression with bootstrapping was performed using the PROCESS macro (Hayes, 2013). The first regression determined if the predictor variable (obligation to manifest strength) explains a significant proportion of the variance in the mediator variable (weight satisfaction). The second regression determined if the predictor variable (obligation to manifest strength) explained a significant proportion of the variance in the dependent variable (depression). The third regression determined if the mediator variable (weight satisfaction) accounted for a significant amount of variance in the dependent variable (depression). Mediation was supported if the indirect effect of pathway  $ab$  was significant.

***Hypothesis VII. Chronic stress will mediate the relationship between obligation to manifest strength and depression in Black women.*** To test this hypothesis, a multiple regression with bootstrapping was performed using the PROCESS macro (Hayes, 2013). The first regression determined if the predictor variable (obligation to manifest strength) explains a significant proportion of the variance in the mediator variable (chronic stress). The second regression determined if the predictor variable (obligation to manifest strength) explained a significant proportion of the variance in the dependent variable (depression). The third regression determined if the mediator variable (chronic stress) accounted for a significant amount of variance in the dependent variable (depression). Mediation was supported if the indirect effect of pathway  $ab$  was significant.

## Results

### Preliminary Analyses

Preliminary analyses were conducted to examine descriptive statistics, means and standard deviations, compare groups, and examine correlational relationships. Participant demographics are reported in Table 1 below.

Table 1

*Participant Demographics as a Percentage of the Sample*

Characteristic	Percentage ( <i>N</i> = 91)
<b>Age</b>	
18-20	2.2
21-29	16.5
30-39	25.3
40-49	19.8
50-59	23.1
60 or older	13.2
<b>Education</b>	
Less than high school degree	5.6
High school degree or equivalent	11.1
Some college but no degree	33.3
Associate degree	8.9
Bachelor degree	20.0
Graduate degree	21.1
<b>Employment</b>	
Employed – working 40+ hr/week	60.4
Employed – working 1-39 hr/week	15.4
Not employed, looking for work	9.9
Not employed, NOT looking for work	2.2
Retired	3.3
Disabled, not able to work	8.8
<b>Income</b>	
\$0 - \$9,999	9.0
\$10,000 - \$24,999	9.0
\$25,000 - \$49,999	23.6
\$50,00 - \$74,999	16.9
\$75,000 - \$99,999	14.6
\$100,000 - \$124,999	3.4
\$125,000 - \$149,999	6.7
\$175,000 – \$199,999	1.1
Prefer not to answer	15.7



Marital Status	
Never Married	50.5
Married	18.7
Separated or divorced	18.7
Widowed	7.7
Living with partner	4.4
Children	
Yes	25.6
No	74.4
Sexual Orientation	
Heterosexual	89.0
Homosexual	3.7
Bisexual	2.4
Queer	4.9
Weight Status	
Underweight	0.0
Normal weight	25.0
Overweight	25.0
Obese	50.0
Blood Pressure Status	
Normal Blood Pressure	37.1
Prehypertension	37.1
Hypertension	25.8

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Means, standard deviations and psychometric properties can be found in Table 2. On average, participants had moderate to high endorsement of the SBW race-gender ideology constructs. The mean score for chronic stress was 1.67 ( $SD = .52$ ) on a scale of 0-4, indicating relatively low levels of chronic stress. The mean score for depression was 1.29 ( $SD = .58$ ), indicating relatively low levels of depression. The mean score of weight satisfaction was 3.04 ( $SD = 1.03$ ), indicating moderately high levels of weight satisfaction. The mean score for physical activity was 2.97 ( $SD = 1.18$ ), indicating moderate engagement in physical activity. The mean score for healthy eating was 2.47 ( $SD = .51$ ), indicating relatively high levels of engagement in healthy eating.

Table 2

*Participant Characteristics on Major Study Variables and Psychometric Properties*

Measure	<i>n</i>	<i>M</i>	<i>SD</i>	$\alpha$	item range
Manifest strength	88	3.02	0.56	0.66	1-5
Emotional suppression	90	3.58	1.29	0.74	1-7
Obligation to help others	90	3.19	0.78	0.72	1-5
Resist dependence	89	2.52	0.56	0.64	1-4
Determination to succeed	80	2.99	0.72	0.95	0-4
Chronic stress	79	1.67	0.52	0.77	0-4
Depression	72	1.29	0.58	0.83	1-4
Weight satisfaction	87	3.04	1.03	0.84	1-6
Physical activity	88	2.97	1.18	0.69	0-6
Healthy eating	86	2.47	0.51	0.30	1-4

Analyses were conducted to determine if there were differences in means and standard deviations by demographic variables. One-way ANOVA analyses revealed significant group differences by age in regards to obligation to manifest strength and resistance to being vulnerable or dependent (See Table 3). Overall, older women were less likely to endorse an obligation to manifest strength and more likely to endorse a resistance to being vulnerable or dependent. More specifically, a Tukey post hoc test revealed that women 60 years and older ( $M = 2.64$ ) were significantly less likely to endorse an obligation to manifest strength than women age 30-39 ( $M = 3.19$ ;  $p = .05$ ) and women aged 50-59 ( $M = 2.78$ ) were significantly more likely to endorse resistance to being vulnerable or dependent than when aged 30-39 ( $M = 2.31$ ;  $p = .05$ ).

Table 3

*Group Differences in Study Variables by Age*

Variable	Obligation to Manifest strength <i>M (SD)</i>	Resistance to being dependent <i>M (SD)</i>
18-20	3.18 (.13)	2.17 (.47)
21-29	3.24 (.42)	2.38 (.39)
30-39	3.19 (.57)	2.31 (.58)
40-49	3.05 (.63)	2.44 (.50)
50-59	2.88 (.44)	2.78 (.53)
60 and older	2.64 (.56)	2.81 (.61)
<i>F</i>	2.45	2.83
<i>P</i>	.04	.02

One-way ANOVA analyses revealed significant group differences by education in regards to emotional suppression and obligation to help others (See Table 4). Overall, those with lower levels of educational achievement were more likely to suppress emotion and endorse an obligation to help others. More specifically, a Tukey post hoc test revealed that women with some college but no degree ( $M = 3.53$ ) were significantly more likely to endorse an obligation to help others than women with a graduate degree ( $M = 2.83$ ;  $p = .03$ ), women with less than a high school degree ( $M = 4.85$ ) were significantly more likely to suppress emotions than women with a bachelor degree ( $M = 3.15$ ;  $p = .03$ ) and graduate degree ( $M = 2.78$ ;  $p = .003$ ), women with a high school degree ( $M = 4.13$ ) were significantly more likely to suppress emotions than women with a graduate degree ( $M = 2.78$ ;  $p = .02$ ), women with some college but no degree ( $M = 3.84$ ) were significantly more like to suppress emotions than women with a graduate degree ( $M = 2.78$ ;  $p = .02$ ), and women with an associate degree ( $M = 4.13$ ) were significantly more likely to suppress emotions than women with a graduate degree ( $M = 2.78$ ;  $p = .04$ ).

Table 4

*Group Differences in Study Variables by Education*

Variable	Emotional Suppress <i>M (SD)</i>	Obligation to help <i>M (SD)</i>
< high school degree	4.85 (.95)	3.56 (.61)
High school degree	4.13 (.69)	3.16 (.97)
Some college	3.84 (1.18)	3.53 (.72)
Associate degree	4.13 (1.07)	3.10 (.89)
Bachelor degree	3.15 (1.09)	2.96 (.61)
Graduate degree	2.78 (1.09)	2.83 (.76)
<i>F</i>	5.33	2.67
<i>P</i>	.00	.03

One-way ANOVA analyses revealed significant differences by marital status in the SBW constructs of obligation to help others and resistance to being vulnerable or dependent (See Table 5). Those who were never married ( $M = 3.32$ ) or married ( $M = 3.39$ ) were less likely to endorse an obligation to help others than those who live with their partner ( $M = 2.15$ ;  $F(4, 89) = 3.27, p < .05$ ). Those who were widowed ( $M = 2.98$ ) were more likely to endorse a resistance to being vulnerable or dependent than those who were never married ( $M = 2.38$ ;  $F(4, 88) = 2.72, p < .05$ ).

Table 5

*Group Differences in Study Variables by Marital Status*

Variable	Resist dependence <i>M (SD)</i>	Obligation to help others <i>M (SD)</i>
Never married	2.38 (.52)	3.32 (.77)
Married	2.52 (.55)	3.39 (.71)
Separated or divorced	2.59 (.54)	3.06 (.65)
Widowed	2.98 (.64)	2.77 (.78)
Living with partner	2.96 (.39)	2.15 (.93)
<i>F</i>	2.71	3.27
<i>P</i>	.04	.02

All correlations are summarized in Table 6. There were significantly negative correlations between depression and the following variables: healthy eating ( $r(69) = -.26, p <$

.05) and weight satisfaction ( $r(70) = -.25, p < .05$ ), indicating that higher levels of depression were associated with less engagement in healthy eating and less weight satisfaction. Weight status was negatively associated with weight satisfaction ( $r(85) = -.29, p < .01$ ), indicating that higher BMI was associated with lower weight satisfaction. There was a significantly positive association between weight status and blood pressure status ( $r(87) = .24, p < .05$ ), indicating that higher BMI was associated with higher blood pressure. Finally, there was a significantly negative association between chronic stress and weight satisfaction ( $r(76) = -.26, p < .05$ ), indicating that higher levels of chronic stress was related to lower levels of weight satisfaction. Bivariate correlations revealed a significantly negative association between obligation to manifest strength and weight satisfaction ( $r(85) = -.26, p < .05$ ), indicating that the more women felt obligated to manifest strength the less likely they were to feel satisfied with their weight.

Table 6

## Summary of Bivariate Correlations for Major Study Variables

Measure	1	2	3	4	5	6	7	8	9	10	11	12
1. Manifest Strength	--	.39**	.47**	-.51**	-.46**	.01	-.14	.36**	-.05	-.09	-.26*	.53**
2. Emotional suppression		--	.55**	-.46**	-.32**	-.25*	-.01	.18	.13	-.04	-.19	.36**
3. Obligation to help			--	-.32**	-.20	-.01	-.20	.18	.09	-.13	-.17	.37**
4. Resist dependency				--	.20	-.07	.01	-.23	.10	.14	-.01	-.40**
5. Determination to succeed					--	.08	.07	-.38**	-.02	.06	.16	-.52**
6. Physical activity						--	.19	-.10	-.19	.01	.09	-.04
7. Healthy eating							--	-.26*	-.15	.08	.01	-.09
8. Depression								--	.02	-.06	-.25*	.69**
9. Weight status									--	.24*	-.29**	-.05
10. Blood pressure status										--	-.18	-.10
11. Weight satisfaction											--	-.26*
12. Chronic Stress												--

Note. \*\* =  $p < .01$ , \*  $p < .05$ .

## Hypothesis testing

***Hypothesis I. Endorsement of SBW constructs obligation to manifest strength, obligation to suppress emotions and obligation to help others will be negatively associated with engagement in health-promoting behaviors, particularly healthy eating and physical activity in Black women.*** Bivariate correlations (see Table 6) revealed a significantly negative association between obligation to suppress emotions and physical activity  $r(88) = -.25, p < .05$  indicating that higher levels of emotional suppression was associated with lower levels of engagement in physical activity. There were no other significant associations between these predictors and health behavior outcome variables.

***Hypothesis II. Chronic stress will be a positively associated with endorsement of obligation to manifest strength in Black women.*** Bivariate correlations revealed a significantly positive association between obligation to manifest strength and chronic stress ( $r(79) = .53, p < .01$ ), indicating that higher levels of chronic stress was associated with higher levels of obligation to manifest strength (see Table 6).

***Hypothesis III. There will be a negative relationship between weight satisfaction and depression such that Black women who are less satisfied with their weight will be more likely to report experiences of depression.*** There was a significantly negative correlation between depression and weight satisfaction ( $r(70) = -.25, p < .05$ ), indicating that higher levels of depression were associated with lower levels of weight satisfaction (see Table 6).

***Hypothesis IV. There will be a positive relationship between chronic stress and depression such that Black women who are more likely to report experiencing chronic stress will be more like to report experiences of depression.*** Depression was positively associated with

chronic stress ( $r(64) = .69, p < .01$ ), indicating that higher levels of depression suggest higher levels of chronic stress (see Table 6).

***Hypothesis V. There will be a positive association between obligation to manifest strength and depression such that those who endorse strength will be more likely to report experiences of depression.*** Bivariate correlations revealed a significantly positive association between obligation to manifest strength and depression ( $r(71) = .36, p < .01$ ) indicating that higher levels of obligation to manifest strength was associated with higher levels of depression (see Table 6).

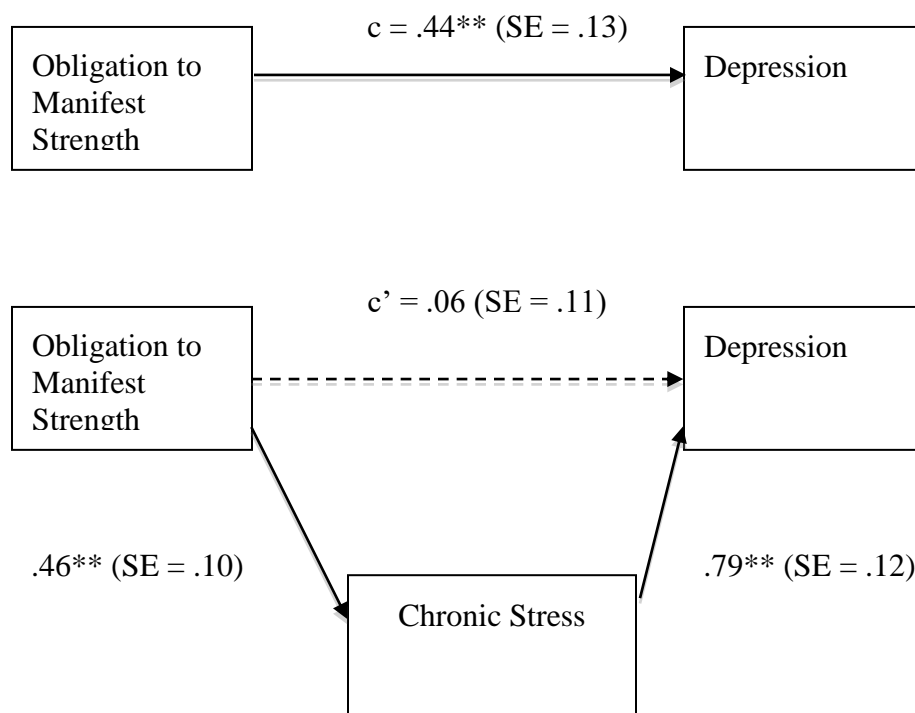
***Hypothesis VI. Weight satisfaction will mediate the relationship between obligation to manifest strength and depression in Black women.*** Multiple regression analyses were conducted to assess each component of the proposed mediation model. The first regression determined if the predictor variable (obligation to manifest strength) explained a significant proportion of the variance in the dependent variable (depression). Results revealed that obligation to manifest strength does explain a significant proportion of the variance in depression ( $\beta = .41, t(67) = 3.24, p < .01$ ). The second regression determined if the predictor variable (obligation to manifest strength) explains a significant proportion of the variance in the mediator variable (weight satisfaction). Results revealed that obligation to manifest strength explains a significant proportion of the variance in weight satisfaction ( $\beta = -.61, t(67) = -2.63, p < .001$ ). The third regression determined if the mediator variable (weight satisfaction) explains a significant proportion of the variance in the dependent variable (depression). Results revealed that weight satisfaction does not explain a significant proportion of the variance in depression ( $\beta = -.06, t(67) = -.95, ns$ ). Given these results, mediation cannot be tested and hypothesis six was not supported.



***Hypothesis VII. Chronic stress will mediate the relationship between obligation to manifest strength and depression in Black women***

Multiple regression analyses were conducted to assess each component of the proposed mediation model. The first regression determined if the predictor variable (obligation to manifest strength) explained a significant proportion of the variance in the dependent variable (depression). Results revealed that obligation to manifest strength explains a significant proportion of the variance in depression ( $\beta = .44$ ,  $t(64) = 3.46$ ,  $p < .001$ ). The second regression determined if the predictor variable (obligation to manifest strength) explains a significant proportion of the variance in the mediator variable (chronic stress). Results revealed that obligation to manifest strength explains a significant proportion of the variance in chronic stress ( $\beta = .48$ ,  $t(64) = 4.55$ ,  $p < .001$ ). The third regression determined if the mediator variable (chronic stress) explains a significant proportion of the variance in the dependent variable (depression). Results revealed that chronic stress explains a significant proportion of the variance in depression ( $\beta = .79$ ,  $t(64) = 6.62$ ,  $p < .001$ ).

Additional mediation analysis was conducted using PROCESS macro (Hayes, 2013) because both the *a* and *b* paths were significant. Bootstrapping estimates were generated based on 5,000 resamples for the mediation model. As expected, chronic stress was found to be a significant mediator between obligation to manifest strength and depression, as demonstrated by the bootstrap confidence interval for the indirect effect that did not contain zero (Path *ab*:  $b = .37$ ,  $SE = .10$ , 95% confidence interval [.20, .60]). The path between obligation to manifest strength and depression became non-significant (Path *c'*:  $b = .06$ ,  $t(64) = .57$ , *ns*; see figure 1).



**Figure 1.** Mediation model for relationship between obligation to manifest strength and depression.

*Note.* \*\* =  $p < .01$ , \*  $p < .05$ .

## Discussion

The purpose of this study was to examine the association between endorsement of the SBW ideology and outcomes of physical activity and eating behaviors, weight satisfaction, and depression. Overall, the findings of the current study suggest that endorsement of the SBW ideology is both protective from negative health outcomes and a risk factor for negative health outcomes. Obligation to manifest strength is the SBW construct that is most studied and findings from the current study support its association with negative health behaviors and outcomes (Harrington, Crowther, & Shipherd, 2010; Woods-Giscombe, 2010). However, interesting associations were also found between the other constructs and health outcomes such as emotional suppression and physical activity and determination to succeed despite limited

resources and depression. Chronic stress was found to be associated with all five of the SBW constructs.

As expected, women who suppress their emotions were less likely to engage in physical activity. This is the first known study to identify a relationship between physical activity behaviors and SBW ideology. Surprisingly, none of the other SBW constructs were negatively associated with engagement in health-promoting behaviors. Past research has discussed that internalization for the SBW role, particularly obligation to manifest strength, resulted in binge eating behaviors (Harrington, Crowther, & Shipherd, 2010; Woods-Giscombe, 2010) and smoking (Woods-Giscombe, 2010). The current study assessed “healthy eating” behaviors, but it can be argued that the items used to define and operationalize “healthy eating” may not have been culturally relevant or appropriate. Future research should explore and create a culturally-relevant measure of healthy eating.

Chronic stress was positively associated with endorsement of obligation to manifest strength therefore hypothesis two was supported. The current study also found positive associations between chronic stress and emotional suppression and obligation to help others providing support for the “stress and strength” hypothesis (Black & Woods-Giscombe, 2012). The stress and strength hypothesis asserts that Black women cope with stress by endorsing strength, which leads to emotional suppression, extraordinary care giving, and self-care delays (Black & Woods-Giscombe, 2012). However, the current study also found higher levels of chronic stress to be associated with lower levels of the SBW constructs resistance to being vulnerable or dependent and determination to succeed despite limited resources. This finding supports the notion that when under high levels of stress individuals may become overwhelmed and seek support to help meet their needs.

However, this counters the widely held definition of Black womanhood or being a strong Black woman. It can be argued that these findings may be an indicator of a major struggle or the presence of cognitive dissonance in Black women who are experiencing chronic stress. Overall, these results demonstrate that chronic stress can be detrimental to the health and well-being of Black women. As such, attention must be paid to how Black women are responding to stress. Continued research is needed to assess how SBW endorsement is related to self-care delays.

The current study revealed that Black women with lower levels of weight satisfaction might experience higher levels of depression. Research supports that Black women are more satisfied with their weight than white women (Sheldon & Foster, 2016; Tennant, 2014). However, Black women still have concerns about their weight. For example, in their qualitative study on body image and eating patterns of Black women, Talleyrand, Gordon, Daquin, and Johnson (2017) found that Black women experience pressure and conflicts about their weight, ideal body image, and physical appearance that extend beyond the thin-ideal and negatively influence eating and exercise behaviors. Similarly, Baruth and colleagues (2015) studied 147 Black women who were economically insecure and either overweight or obese and found that most of the women reported wanting to be a smaller size and had misperceptions of the body size associated with health problems. Working with Black women to define and illustrate health body sizes and methods that can be used to achieve and maintain a healthy weight is essential for promoting health, increasing weight satisfaction, and reducing potential outcomes of depression.

Chronic stress was positively associated with depression therefore hypothesis four was supported. Overall, participants of the current study reported low levels of chronic stress and depression, but the association of these variables suggests that this relationship should be examined. Being a strong Black woman is characterized by experiences of chronic stress.

Perhaps only low levels of chronic stress are necessary for depressive symptoms to present. Future research should explore the threshold of chronic stress in Black women for depressive symptoms to become present.

Obligation to manifest strength was positively associated with depression and hypothesis five was supported. This relationship is important to consider especially for Black women between the ages of 18 and 49 years who were found to be more likely to endorse this construct. Late adolescence through adulthood is filled with monumental moments in a women's life that often require strength such as higher education matriculation, marriage, and becoming a parent. It can be argued that women in this age group may be at a higher risk for depression if they endorse strength and do not have the necessary supports to cope with life's stressors. Future research should explore the coping strategies that are effective in reducing depressive symptoms in high endorsers of obligation to manifest strength.

The final hypotheses explored the mediational relationship of weight satisfaction and chronic stress on obligation to manifest strength and depression. Obligation to manifest strength and negative health outcomes has been widely studied. However, the current study sought to better understand the mechanisms that underlie this relationship. It was thought that weight-related factors might explain the relationship between obligation to manifest strength and depression due to the conflict between cultural and societal beauty ideals. However, the findings of the current study found no support for this mediational relationship. In fact, there was no relationship between weight satisfaction and depression indicating that weight satisfaction was not associated with depressive outcomes. Seventy-five percent of the sample reported being overweight or obese. Nonetheless, there were only moderate levels of weight satisfaction among participants. These findings may suggest that weight satisfaction serves as a protective factor

from depression for Black women who endorse cultural beauty standards opposed to Western standards. Future research should explore weight satisfaction as a moderator variable.

Lastly, chronic stress was found to serve as a mediator for the relationship between obligation to manifest strength and depression in Black women. The coupled effect of endorsing strength and experiencing chronic stress was again found to be detrimental to the health and well-being of Black women (Black & Woods-Giscombe, 2012). Given that Black women may delay self-care screenings (Black & Woods-Giscombe, 2012) and are often undiagnosed or misdiagnosed for depression (Bailey, Blackmon, & Stevens, 2009; Ialongo, McCreary, Pearson, Koenig, Schmidt, Poduska, et al., 2004), supports should be provided and established within family, friend, and community units to help women cope with stress in effort to reduce experiences of depression. Similar to the SBW ideology, John Henryism is a race-based ideology that posits that health disparities in Black people is attributed to their engagement in high effort coping (Bronder et al., 2014). Bronder and colleagues (2014) found that Black women who endorsed John Henryism were less likely to report depressive symptoms. The findings of the current study support what past researchers have found about the endorsement of the race-based ideologies (Bronder, Speight, Witherspoon, & Thomas, 2014). Thus, attention should be given to how Black women are interpreting their experiences and channeling their emotions to intervene for the promotion of health and well-being.

In recent years, there has been a rise in the amount of targeted communication to Black women about the benefits of therapy and self-care. For example, the online platform “Therapy for Black Girls” ([www.therapyforblackgirls.com](http://www.therapyforblackgirls.com)) was established in 2014 by Dr. Joy Harden Bradford to encourage the “mental wellness of Black women and girls” and links Black girls and women with Black women therapists. Efforts like this are needed to help normalize help seeking,

reduce mental health-related stigma, and eliminate barriers to care such as accessibility and availability.

The current study did not find any significant correlations between each construct of the SBW race-gender ideology and blood pressure status nor obesity status. However, weight status was found to be positively associated with blood pressure status indicating that higher bmi was associated with higher blood pressure. Additionally, weight status was found to be negatively associated with weight satisfaction indicating that higher bmi was associated with lower weight satisfaction. This finding supports past research about overweight and obese women reporting lower levels of weight satisfaction (Gustat, Carton, Shahien, & Andersen, 2017).

### **Strengths and Implications for Research and Practice**

The findings of this current study help to illustrate the complexity of Black womanhood and underscore the need to fully examine the sociocultural factors that influence their health beliefs, behaviors, and outcomes. The five key components of Black womanhood as outlined by the superwoman schema (Woods-Giscombe, 2010) uniquely serve as risk or protective factors. Thus, researchers and health practitioners should work to better understand how the nuanced lived experiences of Black women influence their psychological and physiological health and create research, programming, and health care plans that align with the women's resources, supports, and responsibilities.

Another implication of this current study is that women who are socialized to endorse the SBW ideology may pass on these beliefs to children and other women thus perpetuating a cycle of poor health outcomes. The perception that being strong is inherent to Black womanhood reinforces false stereotypes and cycles of oppression, both self-inflicted and from others, which can be detrimental. Furthermore, the fact that social norms around health contribute to health

beliefs and behaviors may explain the disproportionate rates of morbidity and mortality from health issues in Black women. Future research should redefine what it means to be a SBW and a new narrative should be created that supports the positive aspects of this endorsement and eliminate the negative aspects.

The current study provides support for the need for culturally-relevant research and practices. Culturally relevant research and practice is necessary for promoting positive and sustainable health behaviors in community settings (Bland & Sharma, 2017; Gothe & Kendall, 2016; Huebschmann, Campbell, Brown, & Dunn, 2015; Joseph et al., 2016; Woods-Giscombe & Black, 2010). For example, Woods-Giscombe and Black (2010) found significant health benefits associated with using culturally-tailored health interventions for Black women. They found that using interventions that encourage Black women to redefine strength and prioritize self-care work to reduce stress and stress-related responses associated with health issues (Woods-Giscombe & Black, 2010). Similarly, Bland and Sharma (2017) found social support to promote physical activity in Black Women. Researchers should integrate and study culturally-tailored interventions more frequently to establish these programs as evidence-based practices that can be used to promote the health of Black women on a larger scale.

Finally, in terms of practice, an implication of this study is that health professionals should work collaboratively with Black women and their families to develop effective strategies for physical and mental health and well-being. More specifically, there should be interdisciplinary action including all health clinicians (physicians, psychologists, nurses, social workers, etc.) to effectively reduce this issue. Mental health professionals should consider that women who endorse this ideology may engage in atypical behaviors that are symptoms of undiagnosed mental illnesses (Jones & Shorter-Gooden, 2003). Acknowledgement of this when



working with Black women may work to lessen the rate of misdiagnoses and associated health issues (Copeland et al., 2017; Woods-Giscombe, Robinson, Carthon, Devane-Johnson, & Corbie-Smith, 2017). It is also important for practitioners to consider creative ways to introduce Black women to mental health services in order to encourage utilization and promote holistic health.

### **Limitations**

Although the strengths associated with this current study is its contribution to the literature on the health and psychological impacts of endorsing the SBW ideology, there are a few limitations. First, purposive sampling was used to gather a diverse group of women for this study. It is possible that the women in our study, though diverse, do not represent the various ethnic groups, upbringings, and socioeconomic statuses of Black women. As such, the results should not be considered to represent all Black women and are not generalizable.

Second, there was low internal consistency for the measure of healthy eating. The current study only used two-items to measure healthy eating. Perhaps using a more comprehensive measure would have provided a more complete picture of healthy eating behaviors and improved our ability to find significant results. Past research has used food diaries to monitor dietary consumption (Bovell-Benjamin, Dawkins, Pace, & Shikany, 2010). However, given the complexity of the term “healthy eating” a qualitative study of Black women and families should be conducted to understand and define “healthy eating” and the foods and practices associated with the term from a cultural perspective.

Third, the current study used a cross-sectional design, which is not ideal for testing mediation. When testing mediation, multiple time points are needed in order to assess the longitudinal impact of the independent variable on the dependent variable on the mediator

(Maxwell & Cole, 2003). Given that this was not used in the current study, the current results are only consistent with mediation, but future research should explore the proposed model using a prospective design.

### **Future Research**

Future research should explore in more detail the relationship between chronic stress, weight satisfaction, physical activity and eating behaviors in Black women. For example, research studies should examine what weight satisfaction means for Black women, especially with Instagram fitness models being body ideals for some, and how stress influences weight perceptions. In addition, future research could examine how weight satisfaction influences eating behaviors. A follow-up qualitative study may shed light on these relationships, which can lead to an experimental research study to determine the causal relationships between weight satisfaction and eating behaviors.

Another suggestion for future research is to examine how Black women socialize their children to endorse the SBW ideology. Modeling of health behaviors and the process of socialization has been found to greatly impact children's health beliefs (Edwards, 2017). Although this was not a goal of the current study, exploring the ways in which this is passed on can provide information about where and how to intervene in order to promote positive health beliefs and behaviors.

Finally, future research should explore how the SBW ideology relates to transgender women. Most of the research on this topic, this study included, explores experiences among cis-gender women. However, as we work to expand identities and become inclusive, it will be important to understand how this cultural endorsement manifests in Black transwomen.

### **Conclusion**

In summary, the current study highlights how being a SBW/Black superwoman can be costly on the health and well-being of Black women. Though inherent to Black womanhood and also a mechanism for challenging false stereotypes, work needs to be done to reshape the narrative of strength to promote regular self-care, help-seeking, and stronger communities of support. Attention should also be focused on how women and girls are socialized to endorse this ideology, which can help to inform the development of culturally centered interventions that promote health outcomes.

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Appendix A.

Superwoman subscale of the Stereotypic Roles of Black Women Scale

Please rate how much you agree with the following statements.

**1. I find it difficult to ask others for help**

1	2	3	4	5	
strongly disagree	disagree		neither disagree nor agree	agree	
	strongly agree				

**2. Black women have to be strong to survive**

1	2	3	4	5	
strongly disagree	disagree		neither disagree nor agree	agree	
	strongly agree				

**3. I tell others that I am fine when I am depressed or down**

1	2	3	4	5	
strongly disagree	disagree		neither disagree nor agree	agree	
	strongly agree				

**4. I do not want others to know if I experience a problem**

1	2	3	4	5	
strongly disagree	disagree		neither disagree nor agree	agree	
	strongly agree				

**5. It is difficult for me to share problems with others**

1	2	3	4	5	
strongly disagree	disagree		neither disagree nor agree	agree	
	strongly agree				

**6. It is easy for me to tell other people my problems**

1	2	3	4	5	
strongly disagree	disagree		neither disagree nor agree	agree	
	strongly agree				

**7. If I fall apart, I will be a failure**

1	2	3	4	5	
strongly disagree	disagree		neither disagree nor agree	agree	
	strongly agree				

**8. I am often expected to take care of family members**

1	2	3	4	5
strongly disagree	disagree		neither disagree nor agree	agree
	strongly agree			

**9. I am always helping someone else**

1	2	3	4	5
strongly disagree	disagree		neither disagree nor agree	agree
	strongly agree			

**10. I will let people down if I take time out for myself**

1	2	3	4	5
strongly disagree	disagree		neither disagree nor agree	agree
	strongly agree			

**11. I am overworked, overwhelmed, and/or underappreciated**

1	2	3	4	5
strongly disagree	disagree		neither disagree nor agree	agree
	strongly agree			

Appendix B.

Emotion Regulation Questionnaire

We would like to ask you some questions about your emotional life, in particular, how you control (that is, regulate and manage) your emotions. The questions below involve your emotional expression, or how you show your emotions in the way you talk, gesture, or behave.

For each item, please answer using the following scale:

1	2	3	4	5	6	7
Strongly			Neutral			Strongly
Disagree						Agree

1. I keep my emotions to myself.
2. When I am feeling *positive* emotions (e.g., joy, amusement), I am careful not to express them.
3. I control my emotions by *not expressing them*.
4. When I am feeling *negative* emotions (e.g., anxiety, sadness), I make sure not to express them.



Appendix C.  
Efficacy of Help-Seeking Scale

For the next set of questions, please rate the extent of your personal agreement with each of the following statements.

**1. It is better to take care of your own problems than to rely on others for help.**

1	2	3	4
Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree

**2. Accepting help from other people make you feel like you owe them something in return.**

1	2	3	4
Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree

**3. You shouldn't offer someone help unless they ask for it first.**

1	2	3	4
Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree

**4. Just talking over your worries with someone can make you feel better.**

1	2	3	4
Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree

**5. Admitting hardships to others is a sign of weakness.**

1	2	3	4
Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree

**6. Opening up to others allows them to take advantage of you.**

1	2	3	4
Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree

Appendix D.

Self Rated Abilities for Health Practices Scale

The following scale asks whether you are able to perform various health practices within the context of your lifestyle and any disabilities you may have. This includes any assistance you have available to you, such as an attendant to help with stretching exercises, for example. Read each statement and use the following scale to indicate how well you are able to do each of the health practices, not how often you actually do it.

0 = Not at all<sup>[SEP]</sup>1 = A little<sup>[SEP]</sup>2 = Somewhat<sup>[SEP]</sup>3 = Mostly<sup>[SEP]</sup>4 = Completely

I AM ABLE TO:

- |  |           |
|--|-----------|
| 1. Find healthy foods that are within my budget                      | 0 1 2 3 4 |
| 2. Eat a balanced diet   | 0 1 2 3 4 |
| 3. Figure out how much I should weight to be healthy                 | 0 1 2 3 4 |
| 4. Brush my teeth regularly  | 0 1 2 3 4 |
| 5. Tell which foods are high in fiber content                        | 0 1 2 3 4 |
| 6. Figure out from labels what foods are good for me                 | 0 1 2 3 4 |
| 7. Drink as much water as I need to drink every day                  | 0 1 2 3 4 |
| 8. Figure out things I can do to help me relax                       | 0 1 2 3 4 |
| 9. Keep myself from feeling lonely                                   | 0 1 2 3 4 |
| 10. Do things that make me feel good about myself                    | 0 1 2 3 4 |
| 11. Avoid being bored  | 0 1 2 3 4 |
| 12. Talk to friend and family about the things that are bothering me | 0 1 2 3 4 |
| 13. Figure out how I respond to stress                               | 0 1 2 3 4 |
| 14. Change things in my life to reduce my stress                     | 0 1 2 3 4 |
| 15. Do exercises that are good for me                                | 0 1 2 3 4 |
| 16. Fit exercise into my regular routine                             | 0 1 2 3 4 |
| 17. Find ways to exercise that I enjoy                               | 0 1 2 3 4 |
| 18. Find accessible places for me to exercise in the community       | 0 1 2 3 4 |

- |  |           |
|--|-----------|
| 19. Know when to quit exercising   | 0 1 2 3 4 |
| 20. Do stretching exercises  | 0 1 2 3 4 |
| 21. Keep from getting hurt when I exercise   | 0 1 2 3 4 |
| 22. Figure out where to get information on how to take care of my health                   | 0 1 2 3 4 |
| 23. Watch for negative changes in my body's condition (pressure sores, breathing problems) | 0 1 2 3 4 |
| 24. Recognize what symptoms should be reported to a doctor or nurse                        | 0 1 2 3 4 |
| 25. Use medication correctly.  | 0 1 2 3 4 |
| 26. Find a doctor or nurse who gives me good advice about how to stay healthy              | 0 1 2 3 4 |
| 27. Know my rights and stand up for myself effectively                                     | 0 1 2 3 4 |
| 28. Get help from others when I need it  | 0 1 2 3 4 |

Appendix E.

Mammy Subscale of the Stereotypic Roles of Black Women Scale

This is a scale to determine attitudes and beliefs. There are no right or wrong answers.

Please use the following scale to complete the questions.

	1	2	3	4	5
	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1. I often put aside my own needs to help others.	1	2	3	4	5
2. I feel guilty when I put my own needs before others.	1	2	3	4	5
3. People often expect me to take care of them.	1	2	3	4	5
4. I should not expect nurturing from others.	1	2	3	4	5
5. I feel guilty if I cannot help someone.	1	2	3	4	5

Appendix F.  
Perceived Stress Scale



The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate *how often* you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate. For each question choose from the following alternatives:

0	1	2	3	4
Never	Almost Never	Sometimes	Fairly Often	Very Often

1. In the last month, how often have you been upset because of something that happened unexpectedly?

0	1	2	3	4
---	---	---	---	---

2. In the last month, how often have you felt that you were unable to control the important things in your life?

0	1	2	3	4
---	---	---	---	---

3. In the last month, how often have you felt nervous and "stressed"?

0	1	2	3	4
---	---	---	---	---

4. In the last month, how often have you dealt successfully with irritating life hassles?\*

0	1	2	3	4
---	---	---	---	---

5. In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life?\*

0	1	2	3	4
---	---	---	---	---

6. In the last month, how often have you felt confident about your ability to handle your personal problems?\*

0	1	2	3	4
---	---	---	---	---

7. In the last month, how often have you felt that things were going your way?\*

0	1	2	3	4
---	---	---	---	---

8. In the last month, how often have you found that you could not cope with all the things that you had to do?

0                    1                    2                    3                    4

9. In the last month, how often have you been able to control irritations in your life?\*

0                    1                    2                    3                    4

10. In the last month, how often have you felt that you were on top of things?\*

0                    1                    2                    3                    4

11. In the last month, how often have you been angered because of things that happened that were outside of your control?

0                    1                    2                    3                    4

12. In the last month, how often have you found yourself thinking about things that you have to accomplish?

0                    1                    2                    3                    4

13. In the last month, how often have you been able to control the way you spend your time?\*

0                    1                    2                    3                    4

14. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

0                    1                    2                    3                    4

Appendix G.

Healthy Eating items from Project F-EAT survey

**Think about a typical family dinner at your home...**

We never eat family dinners (If true, check the box to the left and skip to Question 16)

	<b>Never or Rarely</b>	<b>Sometimes</b>	<b>Usually</b>	<b>Always</b>
Is a green salad served?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
Are vegetables other than potatoes served?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
Is 100% fruit juice served?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
Is fruit (not including juice) served?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
Is milk served?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
Are sugar-sweetened beverages (soda pop, Kool-aid, etc.) served?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

Appendix H.  
Physical Activity items from Project F-EAT survey

a usual week, how many hours do you spend doing the following activities?

**Strenuous exercise (heart beats rapidly)**

Examples: biking fast, aerobic dancing, running, jogging, swimming laps, rollerblading, skating, lacrosse, tennis, cross-country skiing, soccer, basketball, football

- None
- Less than ½ hour a week
- ½ – 2 hours a week
- 2 ½ - 4 hours a week
- 4 ½ - 6 hours a week
- 6+ hours a week

**Moderate exercise (not exhausting)**

Examples: walking quickly, dancing, baseball/softball, easy bicycling, volleyball, strength training, skiing, snowboarding

- None
- Less than ½ hour a week
- ½ – 2 hours a week
- 2 ½ - 4 hours a week
- 4 ½ - 6 hours a week
- 6+ hours a week

**Mild Exercise (little effort)**

Examples: walking slowly, bowling, golf, fishing, snowmobiling, yoga

- None
- Less than ½ hour a week
- ½ – 2 hours a week
- 2 ½ - 4 hours a week
- 4½ - 6 hours a week
- 6 + hours a week

Appendix I.

Weight Satisfaction items from Project F-EAT survey

**How satisfied are you with your:**

	<b>Very Dissatisfied</b>				<b>Very Satisfied</b>
Weight	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
Body shape	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
Body build	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>



Appendix J.  
CES-D Short Form

Client ID# \_\_\_\_\_

Date: \_\_\_/\_\_\_/\_\_\_

### CES-D Short Form Depression Screening Questionnaire

Below is a list of ways you might have felt or behaved.  
Please indicate how often you have felt this way DURING THE LAST WEEK.

		CIRCLE ONE NUMBER ON EACH LINE			
Main Questions		Rarely	Some of the time	Occasionally	All of the time
1.	I was bothered by things that don't usually bother me.	0	1	2	3
2.	I had trouble keeping my mind on what I was doing.	0	1	2	3
3.	I felt depressed.	0	1	2	3
4.	I felt everything I did was an effort.	0	1	2	3
5.	I felt hopeful about the future.**	0	1	2	3
6.	I felt fearful.	0	1	2	3
7.	My sleep was restless.	0	1	2	3
8.	I was happy.**	0	1	2	3
9.	I felt lonely.	0	1	2	3
10.	I could not get going.	0	1	2	3
Additional Questions					
	I feel like everyone is against me.	0	1	2	3
	I feel very angry or irritable.	0	1	2	3
	I feel like giving up.	0	1	2	3
	I'm worried that something might happen to myself or my baby	0	1	2	3
	I feel like I hurting myself, my pregnancy, (or my baby), or others.	0	1	2	3
** Items 5 and 8 are reversed before adding them to the total score.					

Appendix K.  
IRB Materials

**DePaul IRB Application Form for Expedited/Full Board Review****For office use only:**

IRB Protocol No.:

Date of IRB Review:

**SUPPORTING MATERIAL CHECKLIST FOR INVESTIGATORS**

**Incomplete application packets or applications that have had questions deleted may result in review delays.**

- Evidence of human subjects training for all study personnel  
(See "Training" at <http://research.depaul.edu>.)
- Flyers, advertisements, oral scripts (including telephone scripts), other recruitment materials
- Consent/assent forms
- Surveys, questionnaires, interview questions/guides
- Debriefing information, if applicable
- Letters of collaboration, if applicable
- Funding Proposals, if applicable. For federally funded research include all sections of the proposal/grant except the budget pages.

**Step I: Project Personnel**

Project Title: 4F - Family, Food, Fitness, and Focus

Principal Investigator(s): Jocelyn Carter

Degree: Ph.D.

DPU Status: *Faculty*Department/College/School: *Psychology*

If "Other," please specify:

Phone: 773-325-4840

E-mail

Address:

jcarter9@depaul.edu

**List all co-investigators and faculty sponsors below, including those from other institutions.**

Name: Alescia Hollowell

Degree:

M.A., MPH

Project Status: *Co-Investigator*

If "Multiple," please list:

DPU Status: *Graduate Student*      If “Multiple,” please list:

Department/College/School: *Psychology*

If “Other” or “Multiple,” please specify:

Phone: 313-402-7680  
ahollowe@depaul.edu

E-mail

Address:

### **Contact Information**

Who should be contacted for further information about this protocol?

Name: Jocelyn Carter  
Professor

Title:

Associate

Phone: 773-325-4840  
jcarter9@depaul.edu

E-mail

Address:

### **Additional Study Personnel**

Please list all additional study personnel, including research assistants: Carolyn Turek; Michael Dabney, Bridget Brush, Darrick Scott, Claire Trainor

Please note that all research personnel working with human participants or their data must complete human subjects training before data collection begins. Under new federal regulations, documentation of training must be placed on file with the IRB Office. Please refer to the IRB website for additional information:

<http://research.depaul.edu/IRB/Mandatory%20%20Training.html>

Has documentation of human subject research training been attached to this application for all study personnel, including the principal investigator, co-investigators, and all research assistants?

Yes     No (pending)    Not Applicable/Already on File with Protocol #JC053112PSY

### **Step II: Funding Sources & Performance Sites**

Check all of the appropriate boxes for funding sources for this research. Include pending funding source(s).

**Federal** - If federally funded, provide name and address of individual to whom certification of IRB should be sent:

- Extramural** (non-federal funding sources) - provide name and address of individual to whom certification of IRB should be sent:  
 **University Research Council (URC)**  
 **Other** (describe): DPU Internal Grant

P.I. of Grant or Contract: Jocelyn Carter

Name of Funding Source: DPU College of Science and Health

Grant/Contract No., if available:

Grant/Contract or Project Title:

### **Performance Sites:**

List all collaborating or performance sites: KIPP Create College Prep

Provide letters of cooperation or support:  Attached  Pending  Not Applicable

Provide letter of other IRB approval:  Attached  Pending  Not Applicable

### **Step III: Specific Objectives of the Project (not more than 1 page)**

Using non-technical language that can be understood by any generally informed layperson, summarize each objective of the proposed research & why it is important.

Childhood obesity is a serious health condition affecting approximately one in three children in the United States (American Heart Association, 2010). Disproportionately affecting African Americans, obesity is both a condition of poor health behaviors and social inequality. Most studies have looked at childhood obesity in African Americans broadly without acknowledging how the social determinants of health, the role of the parent, culture, and environment shape and influence behavior. However, with a large number of African Americans of low-income status living in urban, minority neighborhoods, destitute of resources for healthy living, money to afford opportunities for health promotion, and positive health role models, many children and families are facing poor health outcomes.

The proposed research will illustrate the importance of examining the role of culture, environment, and social norms in shaping health behaviors and outcomes in African Americans parents and children. No research has examined the relationship between sociocultural norms, environment, and health efficacy with obesity-related health behaviors among low-income African American parents as it relates to their family's health outcomes.

The proposed study will conduct focus groups and collect survey data from 100 self-identified African American parents/guardians. Participants will be recruited from a charter school in Chicago which serves a largely low-income African American population. Focus groups will be conducted for parents and topics for the focus groups will include sociocultural norms around physical activity and healthy eating, family and cultural food traditions, eating and physical activity preferences, perceptions of body weight and body image, and perceived personal, environmental, and economic barriers to healthy living.

In examining childhood obesity from cultural and socio-ecological perspectives, we will be able to inform the development of culturally-tailored childhood obesity interventions to reduce the disparity and contribute to the positive growth and development of future generations.

The primary objectives of the current study are:

1. To understand caregivers' cultural beliefs and practices about health, obesity, physical activity, and nutrition using qualitative methods, such as focus groups.
2. To validate information from these surveys using existing questionnaire methods.

---

#### **Step IV: Plan of Work**

Please provide a step-by-step account of all interactions that will take place with participants and all activities that participants will be asked to complete. Specify how each data collection activity will generate data that will permit achievement of the goals and objectives of this research.

##### 1. Recruitment.

Participants are adult parents (50 male parents/guardians, 50 female parents/guardians) of children in grades 5 and 6 (age ranges from 9-13) will be recruited through a partnership with KIPP Create College Prep in Chicago, IL. This age group was chosen because there are well-documented declines in physical activity that occur in the adolescent years. The goal of this study is to provide information that will inform attempts to prevent decreases in health promoting behaviors before adolescence. Parents are the most critical influencers of health habits during this time period and their perspective is needed to understand their family's health habits. Children at KIPP Create will be given flyers to take home to their families (teachers will hand flyers out in all homeroom classes), inviting them to participate in focus groups related to health behaviors, such as eating and exercise. All parents/guardians whose primary language is English will be eligible to participate. Any interested parents/guardians will be asked to complete the bottom portion of the flyer, indicating interest in the study, by including their name(s), phone number, and an indication of availability for focus groups (e.g., rank order preferences for evening focus groups (Monday-Friday) or afternoon focus groups (Saturday/Sunday)). Families will have 2 weeks from the time of flyer distribution to return their contact information to the office. Parents will be asked to place the flyer in a secured box in the school office. After the two-week time period, the DePaul research team and affiliates at KIPP will be in contact to determine the best dates and times to schedule focus groups. Once focus group dates and times are determined, interested families will be contacted to schedule them for focus groups. A phone script will be used to contact participants, explain the study procedures, and arrange a time that is best for participants. Three times/dates will be provided and participants will be asked to select among them. If parents are not able to attend any of the sessions, their availability for additional sessions will be noted and attempts will be made to accommodate them.

2. Focus Group/Questionnaire Completion Session. Parents will be asked to attend a 90 minute session at KIPP Create College Prep to review the consent forms (10 minutes), provide written informed consent (10 minutes), complete study questionnaires (20 minutes; see measures section for list), and participate in focus groups related to the topics including sociocultural norms around physical activity and healthy eating, family and cultural food traditions, eating and physical activity preferences, perceptions of body weight and body image, and perceived personal, environmental, and economic barriers to healthy living (50 minutes). Focus groups will be audio recorded (and later transcribed) using digital audio recorders owned by Dr. Jocelyn Carter's research laboratory. Questionnaires will be completed using REDCap (if Internet access is available at KIPP), a secure web-based application that has been designed for data collection for research studies (DePaul has REDCap access), or on paper questionnaires (if Internet access is not reliably available at KIPP).

A member of the research team will read the consent form to the group of potential parent participants after providing each parent with a copy. After the reading, parents will be provided with an opportunity to ask questions about the consent process and the research process, and then sign the consent document. Research assistants will collect consent forms from each parent individually. As they collect the forms, the research assistants will assess their understanding using the questions on the consent document.

Research assistants will then assign a unique ID number to each participant beginning with 1001. If the participant is completing the survey using a paper packet, the research assistant will write the ID number on the front page of the packet. If the participant is using the REDCap program, the research assistant will type in the ID number before handing the table to the participant to complete the surveys.

The data from these sessions will be used to evaluate the two research aims of the study regarding cultural and psychosocial factors that are related to child-health outcomes.

**Quantitative Measures.** All measures will be completed at the questionnaire session unless otherwise indicated.

**a. Parent Self-Report Measures**

Parent stress - The Financial & Neighborhood Strain Questionnaire (12 items). This questionnaire asks about challenges about living in the participant's neighborhood including lack of access to resources and community violence.

Parental depression - Center for Epidemiological Studies - Depression Short Form (10 items). This measure asks about parent's emotional functioning including sadness and low energy.

Family Health Questionnaire. This measure asks about family health habits such as engaging in physical activity and family meals regularly.

**Qualitative Measures**

a. Focus group interview questions - see interview attached. The interview broadly covers perceived barriers and facilitators of healthy living in families.



It is expected that focus groups will contain 8-10 participants and that approximately 10 focus groups will be conducted. The exact dates of the focus groups has not yet been determined, but will likely take place on Tuesday or Thursday afternoons in May, 2017 (4:30-6:00pm). The focus groups will be held after school hours in classrooms that the school has agreed to let us use for the research. The research assistants will transcribe the recordings into written notes. The focus group will be facilitated by the PI or doctoral-level graduate student with experience in conducting focus groups. The skilled moderator will work to generate a range of different ideas and opinions from as many different members of the group in the time allowed. The moderator will use the pre-determined questions to structure the group, but will allow for free-flowing discussion among members. The moderator will use his/her judgement in asking follow-up questions such as "Can you talk about that more? Help me understand what you mean. Can you give me an example?" The assistant moderator will take notes and run the tape recorder.

After research assistants transcribe the notes and recording, the focus group data will be analyzed through search for qualitative themes (based on grounded theory research). These themes will be examined for correlation with demographic factors and parent stress and depression. Finally, mixed methods analyses will be conducted to determine whether responses to survey questions (Family Health Questionnaire) are correlated with themes obtained during the focus groups.

Is classroom time being used for any part of the study?  Yes  No If yes, justify the use of classroom time. Also describe in detail the activity planned for non-participants during the class session:

### **Step V: Participant Population**

Please indicate the total number of participants anticipated for inclusion in this project. This number should be the number of participants you will enroll in order to get the adequate data sets you will need. If multiple sites are to be used, provide an estimate in this space of the number in each category to be recruited from each site. In addition, if you plan to study only one sex, provide detailed rationale in the inclusion/exclusion section (Step VI, C, 1&2) of this application.

A. Number of Participants Required:

Male: 50 adult caregivers/participants

Female: 50 adult caregivers/participants

Total: 100

B. Age Range (check all that apply):

0-7 yrs. (submit parental permission form – template C)

8-17 yrs. (submit child's assent form –template D and parental permission form – template C)

18-64 yrs. (submit informed consent form – templates B or F)

65+ yrs. (submit informed consent form – template B)

C. Source/Type of Participants (check all that apply):

- hospital/medical patients
- volunteers from the general population
- DPU students, faculty, and/or employees
- community institutions, please specify: Parents with students at KIPP Create College Prep
- other, please specify:

D. Participant Location During Research Data Collection (check all that apply):

- participant's home
- hospital/clinic, please specify:
- DPU locations, please specify:
- community locations, please specify:
- elementary or secondary schools, please specify: KIPP Create College Prep; Chicago, IL
- other, please specify:

E. Special populations to be included in the research (check all that apply):

- minors under age 18
- pregnant women
- prisoners
- economically disadvantaged
- other, please specify:

F. Several groups listed in (E) above are considered “vulnerable” or require special consideration by the federal regulatory agencies and by the IRB. Provide rationale for using special populations.

We are assessing psychosocial risk factors for obesity and related health-concerns in low-income African American families, a population that is at increased risk for obesity and related health problems.

### **Step VI: Recruitment Procedures**

A. Please indicate all methods that will be used to recruit participants and attach copies of all written recruitment materials:

- Newspaper/magazine advertisements. If so, in which publications will they appear?
- Flyers/notices to be posted. If so, where will they be posted?
- Handouts to be distributed
- Cover letter to be mailed or emailed
- Other. Please describe:

- B. If verbal announcements will be used to recruit participants in person or by phone, please provide a script for what will be said to participants:

N/A

- C. Will the Principal Investigator(s) conduct all recruitment activities?  Yes  No  
 N/A

If no, please name the specific individuals who will recruit participants and attach their training documentation:

Alescia Hollowell; Carolyn Turek; Michael Dabney, Bridget Brush, Darrick Scott, Claire Trainor

- D. Please describe populations to be included/excluded from the research. Please describe procedures to assure equitable selection of participants. Researchers should not select participants on the basis of discriminatory criteria. Selection criteria that exclude one sex, racial, or ethnic group require a clear scientific rationale for the exclusion.

1. Inclusion: 1) parent/guardian with a child attending KIPP Create College Prep 2) able to understand/participate in the study; 3) provided informed consent (parent); 4) English-speaking

2. Exclusion: Inability to speak and/or understand English

3. By whom (e.g., principal investigator, research assistant, medical personnel, school officials) will the inclusion/exclusion criteria be determined? Research team

- E. Will potential participants be identified and/or recruited using private records?  Yes  No

If so, who is the custodian of the records?

If the records are “private” medical or student records, you may be required to get the written assent/consent of the potential participants prior to accessing the records.

- F. Will participants receive inducements before or rewards after the study? If yes, explain. (Note: this information must be outlined in the consent document.)  Yes  
 No

Participating parent/legal caregiver will each receive a \$20 gift card (Best Buy, Target, GameStop) for completing the survey and focus group portions of the study.

The parent will not be paid if they do not complete both the survey and the focus group.

### **Step VII: Risks and Benefits of the Research**

- A. Identify the risks (current and potential) and describe the expected frequency, degree of severity, and potential reversibility. Include any potential late effects. (Note: risks can be psychological, physical, social, economic, or legal.)

The focus group methodology means that there is a risk for breach of confidentiality as focus group members may share information with those who are not in the focus group. Another possible risk is the potential for parents to feel uncomfortable about disclosing their nutrition behaviors and psychological symptoms. There is potential for breach of confidentiality on the survey portion of the study if the data are viewed by others outside the research team.

- B. Does the research involve (check all that apply):

- use of private records (medical or educational records)
- possible invasion of privacy of participant or family
- deprivation of physiological requirements such as nutrition or sleep
- manipulation of psychological or social variables such as sensory deprivation, social isolation, stresses, mood induction
- the collection of personal or sensitive information in surveys or interviews
- use of a deceptive technique, e.g., placebo, double-blind, etc. (If use of deception is part of the experimental protocol, the protocol must include a “debriefing procedure” [provide this procedure for IRB review] which will be followed upon completion of the study, or withdrawal of the participants.)
- presentation of materials that participants might consider offensive, threatening, or degrading
- changes in diet or exercise
- other risks, specify:

- C. Describe the precautions taken to minimize risk:

To minimize risks associated with potential embarrassment/discomfort and breach of confidentiality, several

steps will be taken both to protect participants including:

Use of ID numbers

- All data collection tools that require participants’ self report will utilize non-identifying ID numbers to protect the identity of respondents.

Security Measures for Data Storage & Transfer

- The REDCAP system will be used for electronic data collection via established procedures that protect confidentiality.
- A master list of participant names and unique identifiers will be kept only at the principal investigator’s office at DePaul University in a sub-directory of her password

protected computer. These lists will be kept separately from raw data. This data will be accessible only to research staff who have a need-to-know reason to access this data.

#### Data Collection Procedures

- Participants will be reminded that their participation is voluntary in nature and that there are no negative consequences for refusing to participate in any or all data collection activities.

Participants will be reminded to respect the confidentiality of the group and not repeat what is heard in the focus group.

- D. Why are the risks and inconveniences mentioned above reasonable? What is the expected scholarly yield from the project? Please justify the risks in relation to the anticipated benefits to the participants and in relation to the importance of the knowledge that may reasonably be expected to result from the research.

The above mentioned risks and conveniences are considered reasonable for the following reasons:

- psychological risks are anticipated to be minimal and transitory
- the likelihood of risks associated with breach of confidentiality actually occurring are minimal given the protections in place.

- E. Benefits of participation: List any anticipated direct benefits of participation in this research project. If none, state that fact here and in the consent form. The knowledge gained from the study could produce a benefit to society. Payment or course credit is not considered to be a benefit of participation. Any benefits of the specific research procedures should be listed as potential benefits.

Participants are not expected to experience any direct benefits from participation in the study. Potential benefits to society include more accessible and effective prevention of childhood overweight and obesity.

### **Step VIII: Confidentiality of Data**

A. Describe provisions made to maintain confidentiality of data.

1. Who will have access to raw data? Access to raw data will only be granted to the co-principal investigators and immediate project staff who have a need to work with the data (e.g. research staff entering data). Raw data will be housed on the REDCAP system.
2. Will raw data be made available to anyone other than the Principal Investigator and immediate study personnel (e.g., school officials, medical personnel)?   
Yes  No

If yes, who, how, and why? N/A

3. If applicable, describe the procedure for sharing data. N/A
4. If applicable, describe how the participant will be informed that the data may be shared. N/A
5. If data are collected, stored, or analyzed on computers, describe the security measures used to ensure confidentiality. For data that will be collected, stored, or analyzed on computers, the following steps will be taken to ensure confidentiality:

A master list of participant names and unique identifiers will be kept only at the co-principal investigator's office at DePaul University in a sub-directory of her password protected computer. These master lists will be kept separately from raw data. Only trained research staff with a job-related need to handle these lists will have access to them.

- B. Where will the data be kept and for how long?

All hard copy data, including digital audio recordings from the focus groups and transcriptions of audio recordings, will be stored in locked cabinets in a locked office of the co-principal investigator at DePaul University, while all electronic data will be maintained on password-protected computer files in a sub-directory of a secure server maintained by DePaul University. In accordance with APA requirements, raw data will be kept for five years. After this time, all raw data will be destroyed, including master ID lists. The only data that will remain after this point will be de-identified electronic data that may be housed on a sub-directory of a password protected computer at DePaul University and utilized only for analyses related to ongoing research or program development. How will you dispose of audio and videotapes that contain data? N/A

(Disposition of audio and video tapes should be included in consent form.)

- C. Will data identifying the participants be made available to anyone other than the principal investigator, e.g., FDA, study sponsor, Institutional Review Board?  Yes  No
  - D. Will the research data and information become part of the medical chart or other permanent record? (Explain here and in the consent form.)  Yes  No
  - E. If participants are students, will school officials receive the data with identifiers attached? (Explain here and in the consent form using appropriate language.)  Yes  No
-

### **Step IX: Informed Consent Process**

Simply giving a consent form to a participant does not constitute informed consent. The following questions pertain to the process. Researchers are cautioned that consent forms should be written in simple declarative sentences. Forms should be jargon-free (see consent form templates). Foreign language versions should be prepared and included for all study materials that the participants will encounter.

- A. Will all adult participants have the capacity to give informed consent?  Yes  No

Individuals who lack the capacity to consent may participate in research only if a legally authorized representative gives consent on their behalf.

- B. In order to assess participants' understanding of the study during the consent process, you must ask participants questions about information provided in the consent form. Their answers to these questions should allow you to determine whether they understand the study and their part in it. If a participant cannot correctly answer a question, then informed consent has not been achieved regardless of whether the individual has signed the consent form. Please check all questions that you will ask:

- What is the purpose of the study?  
 What are the benefits associated with being in the study?  
 What are the risks associated with being in the study?  
 Other:  
 Other:

- C. If you will include participants not fluent in English, please provide an appropriate translation.

N/A

- D. In relation to the actual data gathering, when and where will consent be discussed and documentation obtained, for example several days before? Be specific.

Consent will be discussed and documented immediately before the data collection in the same session.

- E. Will the Investigator(s) be securing all of the informed consents?  Yes  No  
 N/A

If no, name the specific individuals who will obtain informed consent and attach their training documentation.

Dr. Jocelyn Carter, Alescia Hollowell, Carolyn Turek, Bridget Brush, Darrick Scott, Claire Trainor, Michael Dabney

F. Consent and Assent Forms (see templates C & D)

Prepare and attach the appropriate DPU consent/assent form(s) for IRB review. You may create forms using a research-sponsor's or a collaborator's templates instead of the DPU templates, provided that your final forms include all information required by the federal guidelines and DePaul's institutional policy.

G. Are you requesting waiver or alteration of informed consent?  Yes  No If yes, please attach completed Form A-2.

H. Are you requesting a waiver of the requirement for documentation of consent?  Yes  No If yes, please attach completed Form A-1.

**Step X: Translations**

A. Will your participant population include individuals who are not fluent/literate in English?  Yes  No

B. If so, will an individual fluent in the appropriate language conduct all interactions with these participants?

Yes  No

C. Have you included translations of all study materials with this application?  Yes  NA  Pending

Please note that because the IRB may ask for changes to your study materials, you may opt not to translate your materials until after you have received word from the IRB that the English versions are appropriate.

**INVESTIGATOR'S ASSURANCE**

I certify that the information provided in this application is complete and correct.

I understand that as Principal Investigator, I have ultimate responsibility for the protection of the rights and welfare of human participants, conduct of the study and the ethical performance of the project. I agree to comply with all IRB policies and procedures, as well as with all applicable federal, state and local laws regarding the protection of human participants in research, including, but not limited to, the following:

The project will be performed by qualified personnel according to the DPU IRB certified protocol,



No changes will be made in the protocol or consent form until approved by the DPU IRB, Legally effective informed consent will be obtained from human participants if applicable, and Adverse events will be reported to the DPU IRB in a timely manner.

**I further certify that the proposed research is not currently underway (except for those protocols of research previously approved and currently seeking renewal) and will not begin until approval has been obtained.**

Principal Investigator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**FACULTY SPONSOR'S ASSURANCE FOR STUDENT OR GUEST INVESTIGATORS**

By my signature as sponsor on this research application, I certify that the student or guest investigator is knowledgeable about the regulations and policies governing research with human participants and has sufficient training and experience to conduct this particular study in accord with the approved protocol. In addition,

- I agree to meet with the investigator on a regular basis to monitor study progress,
- Should problems arise during the course of the study, I agree to be available, personally, to supervise the investigator in solving them, and
- I agree to ensure that the investigator will promptly report significant or untoward adverse effects to the DPU IRB in a timely manner,

If I will be unavailable, as when on sabbatical leave or vacation, I will arrange for an alternate faculty sponsor to assume responsibility during my absence and I will advise the DPU IRB by letter of such arrangements. I further certify that the proposed research is not currently underway and will not begin until approval has been obtained.

Faculty Sponsor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

\*The faculty sponsor must be a member of the DPU faculty. The faculty member is considered the responsible party for legal and ethical performance of the project.

**\*Be sure to submit this application (in electronic and hard copy format) to your department or college Local Review Board, NOT the IRB.\***

*Questions?--Contact Susan Loess-Perez at (312) 362-7593 or at [sloesspe@depaul.edu](mailto:sloesspe@depaul.edu).*

## **ADULT CONSENT TO PARTICIPATE IN RESEARCH**

### **4F – Family, Food, Fitness, and Focus**

**Principal Investigator:** Jocelyn Smith Carter, PhD

**Institution:** DePaul University, Chicago, Illinois, USA

**Department (School, College):** Department of Psychology, College of Science and Health

#### **What is the purpose of this research?**

We are asking you to be in a research study because we are trying to learn more about cultural factors that influence health-related behaviors in families. This study is being conducted by Dr. Jocelyn Carter at DePaul University. There may be other people on the research team assisting with the study.

We hope to include about 100 parents/guardians of children at KIPP Create Charter School in the research.

#### **Why are you being asked to be in the research?**

You are invited to participate in this study because you are the parent or legal guardian of a child between the ages of 9 and 13 attending KIPP Create Charter School and speak English.

#### **What is involved in being in the research study?**

If you agree to be in this study, being in the research involves participating in a 90-minute session at KIPP Create Charter School. During this session, you will find out more information about the study, have the process of consenting to research explained to you, and fill out surveys and participate in a focus group interview. The surveys will ask questions related to your family's health habits, your neighborhood, and your emotions. For example, you will be asked how often your family eats meals together. As part of the group interview, you will be asked to discuss topics related to health behaviors, like eating and exercise and how your family has learned how to be healthy. The group interview will be audio recorded and transcribed into written notes later in order to get an accurate record of what you said.

#### **How much time will this take?**

This study will take about 70 minutes of your time. The surveys will take about 20 minutes to complete. The group interview will take about 50 minutes to complete.

#### **Are there any risks involved in participating in this study?**

Being in this study does not involve any risks other than what you would encounter in daily life. You may feel uncomfortable or embarrassed about answering certain questions. You do not have to answer any questions that you do not want to. There is the possibility that others may find out what you have said. We have put protections in place to prevent this from happening on the surveys that you complete. For example, we use a confidential ID number on the survey that only you will know, rather than using your name on the survey. All names will be removed from the written notes of the audio recorded group interview, but there is always a risk that others may

find out what is said in the group interview because everyone in the group hears what is said. However, we will remind group members to keep information shared in the group private.

**Are there any benefits to participating in this study?**

You will not personally experience any benefits from participating in the study. You are contributing to the knowledge of which factors are related to choosing healthy lifestyles. We hope that information we get from this study can help other children and parents/guardians lead healthier lives.

**Is there any kind of payment, reimbursement or credit for being in this study?**

You will receive a \$20 gift card to Target, Best Buy, or GameStop for completing the session at KIPP Create Charter School. You will only receive the gift card if you complete both the survey and the focus group.

**Are there any costs to me for being in the research?**

You are responsible for any costs related to getting to and from the location where you will participate in the research (KIPP Create Charter School).

**Can you decide not to participate?**

Your participation is voluntary, which means you can choose not to participate. There will be no negative consequences, penalties, or loss of benefits if you decide not to participate or change your mind later and withdraw from the research after you begin participating. Your decision whether or not to be in the research will not affect your relationship with KIPP Create Charter School or its employees, and will not affect your child's grades.

**Who will see my study information and how will the confidentiality of the information collected for the research be protected?**

The research records will be kept and stored securely. Your information will be combined with information from other people taking part in the study. When we write about the study or publish a paper to share the research with other researchers, we will write about the combined information we have gathered. We will not include your name or any information that will directly identify you. We will make every effort to prevent anyone who is not on the research team from knowing that you gave us information, or what that information is. However, some people might review or copy our records that may identify you in order to make sure we are following the required rules, laws, and regulations. For example, the DePaul University Institutional Review Board, may review your information. If they look at our records, they will keep your information confidential.

Complete confidentiality regarding what you share in the focus group cannot be guaranteed. Focus group members will hear what you say and may choose to repeat the information to others outside the focus group. We will remind focus group members not to share information outside of the focus group before we begin the groups. The audio recordings of the focus groups will be kept until accurate written notes have been made, then they will be destroyed.

You should know that there are some circumstances in which we may have to show your information to other people. For example, the law may require us to show your information to a

court or to tell authorities if you report information about a child being abused or neglected or if you pose a danger to yourself or someone else.

**Who should be contacted for more information about the research?**

Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions, suggestions, concerns, or complaints about the study or you want to get additional information or provide input about this research, you can contact the researcher, Jocelyn Smith Carter, Ph.D. at 773-325-4840 or [jcarter9@depaul.edu](mailto:jcarter9@depaul.edu).

This research has been reviewed and approved by the DePaul Institutional Review Board (IRB). If you have questions about your rights as a research subject you may contact Susan Loess-Perez, DePaul University's Director of Research Compliance, in the Office of Research Services at 312-362-7593 or by email at [sloesspe@depaul.edu](mailto:sloesspe@depaul.edu).

You may also contact DePaul's Office of Research Services if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.

*You will be given a copy of this information to keep for your records.*

**Statement of Consent from the Subject:**

I have read the above information. I have had all my questions and concerns answered. By signing below, I indicate my consent to be in the research.

Signature: \_\_\_\_\_

Printed name: \_\_\_\_\_

Date: \_\_\_\_\_