7-28-2011

The "Precious" Dilemma: An Investigation of Race, Childhood Sexual Abuse, and Adult Obesity

Armanthia Nicole Duncan

To the University Council:

The Thesis Committee for Armanthia Nicole Duncan certifies that this is the final approved version of the following electronic thesis: "The "Precious" Dilemma: An Investigation of Race, Childhood Sexual Abuse, and Adult Obesity."

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Wesley James, Ph.D.
Major Professor

We have read this thesis and recommend its acceptance:

_____

Martin Levin, Ph.D.

_____

Carol Rambo, Ph.D.

_____

Wanda Rushing, Ph.D.

Accepted for the Graduate Council:

_____

Karen D. Weddle-West, Ph.D.
Vice Provost for Graduate Program

THE “PRECIOUS” DILEMMA: AN INVESTIGATION OF RACE, CHILDHOOD SEXUAL ABUSE, AND ADULT OBESITY

by

Armanthia Duncan

A Thesis

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Master of Arts

Major: Sociology

The University of Memphis

August 2011

Abstract

Duncan, Armanthia Nicole. M.A. The University of Memphis. August/2011 Master of Arts. "The "*Precious*" Dilemma: An Investigation of Race, Childhood Sexual Abuse, and Adult Obesity." Major Professor: Wesley L. James

The critically acclaimed film *Precious,*[1] depicts poverty, sexual abuse, illiteracy, and obesity. The emotional story of "Precious" inspires this research on childhood sexual trauma and its long-term effects. I intend to address these issues by investigating the relation between childhood sexual abuse and its relation to obesity using data from the Behavioral Risk Factor Surveillance System (BRFSS) and the subcomponent Adverse Childhood Experience module. There are three hypotheses proposed in this research: 1) there is a significant relationship between obesity and race, 2) there is a significant relationship between obesity and childhood sexual abuse, and 3) African American women who have been sexually abused are more likely to be obese than sexually abused women of other races, i.e. African Americans are disproportionately affected by this phenomenon. Using binary logistic regression models controlling for education, income, healthy lifestyle and health risk behaviors, the odds ratio for sexually abused black female respondents were higher than for sexually abused females of other races. Findings from this research suggest that race and childhood sexual abuse are strong predictors of adulthood obesity, providing an important contribution to the obesity literature.

[1] *Precious* is a film released in 2009, directed by Lee Daniels, and based on the novel *Push* by Sapphire.

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Introduction

The film *Precious*, an adaptation of the novel *Push* by Sapphire, portrays Clarieece Precious Jones (referred to as Precious throughout the film) as a 16-year-old morbidly obese African American girl who is repeatedly sexually abused by both of her biological parents. Early in the film, director Lee Daniels juxtaposes two problematic issues plaguing African American females by flashing back and forth between scenes of Precious's father having sex with her and images of eggs and pork fat frying in a deep cast-iron skillet. The film brings to the forefront a dilemma faced by many African American females: painful tragic histories of childhood sexual abuse manifested in unhealthy eating habits being used as coping mechanisms (Thompson 1992; Thompson 1994).

Studies classify 50% of African American females as obese, regardless of economic and educational levels (Beverley 2007); the highest rates of any race and gender group in the U.S. (The Office of Minority Health 2009). In terms of sexual abuse crimes, the Centers for Disease Control and Prevention noted in a 2008 nationally representative survey that among children and youth (17 years of age and younger) one quarter of all females were first raped before the age of 12 and 35% between the ages of 12-17 (CDC 2008). It was also noted in this study that "Among high school students, 9.3% of black students, 7.8% of Hispanic students, and 6.9% of white students reported that they were forced to have sexual intercourse at some time in their lives" (CDC 2008). The Bureau of Justice Statistics reported in "Criminal Victimization, 2008" that blacks, except in the case of simple assault, experienced higher rates than whites for every violent crime measured including rape/sexual assault (Rand 2009). Clearly racial

differences in obesity rates and sexual abuse crimes exist in the U.S. What is not clearly known is how obesity is related to sexual assault and race. Only one-third of human obesity is related to heredity or genetic factor, meaning that the remaining two-thirds are determined by social and environmental factors making them great predictors for obesity (Alleyne, LaPoint 2004). Consequently, additional research is needed.

The "Precious" Story

What are the sociological inferences in this film?

Precious, like many other females, has a destructive relationship with food (Hooks 1993; Lovejoy 2001; Thompson 1992; Thompson 1994). In one scene, Precious sits in her living room and yells to her mother, who is upstairs masturbating in bed, "Ma, I'm hungry…Ma, I need some money." In response, her mother yells back, "Come take care of mommy Precious." Shockingly, this was a request for Precious to perform oral sex on her mother, and Precious responds, "I wish she would stop this shit." After this exchange, Precious still leaves the house hungry with no money and walks into a local restaurant and steals a bucket of fried chicken. She consumes the entire bucket by herself until she becomes sick and vomits the contents into a nearby trashcan. This behavior likely serves as a coping mechanism for Precious. Felitti (1993) explains, "Overeating brings solace; it is an effective and relatively acceptable 'de-stressing' technique" (p.735). In this scene and others, it appears as if food is providing Precious comfort during her difficult times.

Abusing external substances to cope with internal turmoil is a commonplace practice (Curtis-Boles et al. 2000; Meeyoung et al. 2007; Simmons et al. 2003). Studies suggest occurrences such as childhood sexual abuse may lead many individuals to abuse

controlled substances (Felitti 1993; Jackson et al. 2010; Thompson 1994). Similarly, Felitti (1993) asserts that, "…compulsive eating, like alcoholism and drug use, can be seen as an attempt to manage the depression, anxiety, and dysphoria that accompany these childhood exposures" (p. 735). Troubling health risk behaviors like compulsive overeating, alcoholism, and drug abuse are not equally accepted or treated within the mainstream health care practices despite the fact that each are utilized to some extent by individuals experiencing trauma to console their pain (Jackson et al. 2010). Within the African American community, the same level of moral abhorrence associated with drug and alcohol addictions is not attached to compulsive overeating (Jackson et al. 2010; Thompson 1994). The stigma attached to drugs and alcohol and the affordability and accessibility of food may lead many to choose the excessive consumption of food to deal with traumatizing experiences like being sexually abused (Thompson 1994). When food is the chosen coping strategy for exposure to trauma, it leads to obesity, which in turn leads to long-term poor health conditions such as: diabetes, stroke, hypertension, and heart disease, most of which are serious concerns within the African American community and the general public at large (Cloutier et al. 2002; Golding 1994; Jackson et al. 2010; Lovejoy 2001).

In this paper the connection between childhood sexual abuse and obesity is investigated across racial groups. Clearly, important long-term health consequences are related to obesity, but can these consequences be related to events that occur earlier in life? More specifically, are past childhood sexual abuse experiences among females potentially related to adulthood obesity outcomes? Consequently, is the prevalence of this relationship potentially stronger for African American females than for females of

other racial groups? This research adds to the social inequality and medical sociology literature by exploring how race differentially shapes the experience and likelihood of the link between sexual assault and obesity in American society. This knowledge helps fill a gap regarding the intersections of race, gender, culture, health, and possibly class. I investigate the connection between childhood sexual abuse and obesity, and if African American females are susceptible to this relationship.

Theoretical Framework and Review of the Literature

The Blame Game, Why are they so fat?

The following discussion is divided into 3 sections: (1) is there a significant relationship between childhood sexual abuse and obesity, (2) are victims of childhood sexual abuse turning to risky health behaviors (like overeating) to anesthetize the pain, and (3) is intersectional oppression and cultural influences affecting the susceptibility of African American females in the association between childhood sexual abuse and obesity? I hypothesize that childhood sexual abuse can and often times does lead to obesity among women and this phenomenon is more common among African American women than in other racial groups. I thus put forth the thesis that if an African American female was forced to have sex as a child, this will greatly increase the likelihood she will experience obesity as an adult. Like others, African American females use food as a source of comfort for anesthetizing the pain from their experiences with childhood sexual abuse (Lovejoy 2001; Striegel-Moore et al. 2002; Thompson 1994).

Section 1: Do sexually abused children become overweight adults?

Felitti's (1993) study of 100 obese individuals in a very low calorie diet program concludes that the obese patients frequently reported histories of childhood sexual abuse. Compared to control subjects of 100 individuals who were never overweight, of the obese group, 25 percent experienced sexual abuse either during infancy, childhood, or adolescence while only 6 percent of the slender control group reported a history of sexual abuse. This study finds an, "…apparently complex relationship of weight to sexuality," and it "…becomes obvious when one studies certain seemingly illogical outcomes: dropping out in the midst of success, and rapidly regaining weight at rates that are clearly incompatible with those metabolic changes that are known to occur temporarily from rapid weight loss" (Felitti 1993:735).

In a study of adverse childhood experiences (e.g. physical, psychological, or sexual abuse; violence against mother, living with household members who were substance abusers, mentally ill or suicidal, or ever imprisoned), 22 percent of 13,494 subjects reported sexual abuse (Felitti et al. 1998). The intention of the study was to explain long term medical and public health issues that might result from exposure to possibly adverse childhood incidents (Felitti et al. 1998). The study finds an increased risk and prevalence for severe obesity, physical inactivity, depression, and suicidal ideations with increased exposure to adverse childhood experiences.

Gustafson and Sarwer (2004) suggest that "childhood sexual abuse is remarkably common" and affect one-third of women and one-eighth of men (pg. 129). The authors find that exposure to childhood sexual abuse is associated with what they term "numerous psychological sequelae" including substance abuse, eating disorders, anxiety,

depression, and somatization (Gustafson and Sarwer 2004). They identify childhood sexual abuse as a risk factor for the onset of obesity, and assert that childhood sexual abuse may be as prevalent as obesity**.** This finding proves to be quite compelling when examining the African American community considering that black females have higher percentages than other racial groups for both instances of sexual abuse and obesity. In a study examining binge eating disorder among black women (Striegel-Moore et al. 2002), the relationship between this health risk behavior and its association to sexual abuse is significant.

Striegel-Moore et al. (2002) examines binge eating disorder among women and finds an association between sexual abuse and binge eating disorder. They stress the importance of including a sample of African American women with binge eating disorder in this study because minorities are often an underrepresented group in patient sample studies. African American women with binge eating disorder had higher percentages of reported histories of sexual abuse than the healthy comparison group who did not have binge eating disorder. Only one in three white women with binge eating disorder reported childhood sexual abuse, but the percentages are higher for African American women. The study finds that two-thirds of African American women with binge eating disorder reported childhood sexual abuse. The compulsion to devour large quantities of food without purging (bingeing) can potentially lead to poor health outcomes such as obesity. However, the stigma attached to obesity often unfairly associates this abnormality with sedentary lifestyles, poor diet choices, and noncompliance with weight-loss treatments on the part of the individual (Puhl and Heur 2010). This reproach to obese individuals is making the case for obesity's association with childhood sexual

abuse a challenging and continuous process. Despite this, other studies that examine the relationship between childhood sexual abuse and obesity, even when controlling for other factors such as demographics, fruit and vegetable consumption, and physical inactivity, finds that the relationship between childhood sexual abuse and obesity is still present (Alvarez et al. 2007). Alvarez et al. (2007) conclude that 23% of the women in their study were obese, and that these obese women are more likely to be African American, Native American, or Hispanic; consequently, the obese respondents are more likely to report histories of child abuse, insufficient fruit and vegetable consumption, sedentary lifestyles, and food unavailability. So despite attempts to shift the onus of excessive weight onto the obese individuals, studies highlight a multitude of other factors that contribute to the contraction of this condition.

Cloutier et al. (2002) continue to make the argument for the association between childhood sexual abuse and obesity in their community study of North Carolina women. In a representative sample of 2,109 women in North Carolina, primary health care patients who reported a history of childhood sexual assault were more likely to suffer from obesity (Cloutier et al. 2002). The sample of respondents is divided between those who were not sexually assaulted, those who were threatened or sexually assaulted without intercourse, and those threatened or sexually assaulted with intercourse. Those who report a history of being assaulted with intercourse are more likely to be obese and to experience health risk factors that include hypertension, high cholesterol, and diabetes (Cloutier et al. 2002). This group is also twice as likely as non-victims to have perceptions of their health conditions as poor (Cloutier et al. 2002). Golding (1994) reaches similar conclusions in a study of Los Angeles women and finds that respondents

who were sexually assaulted "were more likely than non-assaulted women to report poor health perceptions, functional limitation, several chronic diseases, medically explained somatic symptoms, and medically unexplained somatic symptoms" (Golding 1994:130).

Golding (1994) theorizes that a common potential psychological reaction to sexual assault is the feeling of a lack of self-control. If sexual abuse victims feel they lack self-control, engaging in compulsive overeating that leads to obesity is plausible, and may make prevention efforts difficult. King et al. (1996) support this assumption and found in their study that sexual abuse victims are more likely not to adhere to obesity treatment and intervention attempts. Wiederman et al. (1999), encounter similar findings in their study discovering that obese persons who had past accounts of sexual abuse and enrolled in a hospital-based weight management program were less likely to be successful in their weight loss attempts than a matched sample of un-abused enrollees. The findings of these articles suggest that not only do sexually abused victims inevitably become obese, but they have a hard time losing the weight. Obese individuals are not contracting this condition primarily because they engage in unhealthy eating behaviors and sedentary lifestyles; there are also emotional and psychological origins to this disease (Lee 2003, Puhl and Heuer 2010). Consequently, if those obese individuals have a history of childhood sexual abuse the ensuing emotional and psychological instability is possibly elevated (Lee 2003). The residual effects of occurrences of childhood sexual abuse may be the manifestation of psychological distress (King et al.1996), and seemingly these victims are turning to risky health behaviors like compulsive overeating to help them cope (Jackson et al. 2010; Thompson 1992; Thompson 1994). Despite the focus of this study being on the potentially unique susceptibility of African American females to this

phenomenon, the relationship between childhood sexual abuse and obesity has an overwhelming affect on whites as well. Individuals that have been sexually abused as a child, regardless of race, are at risk of developing adulthood obesity.

Section 2: Why is food their weapon of choice?

Eating disorders can, understandably, be contrivances of psychological defense in response to childhood sexual trauma (Thompson 1994). Jackson et al. (2010:933) theorize that "when individuals are chronically confronted with stressful conditions in daily life (e.g. poverty, crime, poor housing), they will engage in unhealthy behaviors (e.g. smoking, alcohol use and abuse, drug use, and overeating, especially comfort foods) that help to alleviate the resulting symptoms of stress." When individuals are confronted with unremitting stressful circumstances they will turn to the practice of engaging in unhealthy behaviors like overeating (Jackson et al. 2010).

Jackson et al. (2010) examine the biological responses to stress and illustrate how chronic stressful conditions lead to anxiety,[2] which in turn is scientifically linked to eating fatty and starchy foods (also labeled comfort foods) to reduce anxiety (Jackson et al. 2010; Kandiah et al. 2006). The authors further asserts that the obesity rates in the African American community are high because of the consumption of excessive amounts of comfort foods (foods high in fat and carbohydrates) which is both a socially acceptable and gender-appropriate means of coping with chronic stress. Emotional and

[2] Jackson et al. (2010) explain how the hypothalamic-pituitary-adrenalcortical (HPA) axis starts to first release corticotropin-releasing factor (CRF) from the hypothalamus, and this then releases adrenocorticotropic hormone from the pituitary gland traveling into the bloodstream then releasing cortisol from the adrenal cortex. They further explain that during chronic stressful conditions the negative feedback cycle in which cortisol regulates continuous release of CRF breaks down as glucocorticoid receptors are down regulated and CRF is continuously released; this process is synonymous with anxiety as CRF and mRNA expression in the amygdala is increased.

psychological pain that emanates from regular exposure to overwhelming tense environments, created by instances of childhood sexual abuse, encourages individuals to seek substances that will provide numbness (Jackson et al. 2010; Thompson 1992). Food is a common vice sought by victims.

As sexually abused victims were young at the time of the occurrence food was a more accessible vice than drugs or alcohol. Therefore, young victims quite easily discover a substance utilized for numbing the pain they were experiencing that was merely a few steps away in the kitchen of their homes (Thompson 1994). The relief of anxiety that food provides (Jackson et al. 2010; Thompson 1994) over time made bingeing on food a generalized response to their afflictions. Yet, even as they got older and acquired more accessibility food was also a more socially accepted vice (Jackson et al. 2010; Thompson 1992; Thompson 1994). Food is also generally less expensive than other substances, and because the negative effects of food do not appear immediately like excessive drug and alcohol-use it is also a safer choice (Thompson 1994). Furthermore, excessive food consumption does not leave the victims hung over like excessive alcohol use or disoriented and discombobulated like excessive drug use. Victims are still able to function normally after bingeing on food unlike bingeing on controlled substances (Thompson 1994).

Some victims of childhood sexual abuse may turn to food as a tool to aid them in ridding themselves of potential future unwanted advances. Other research posits that many patients in a ten year obesity group confessed to intentionally becoming overweight after sexual assault because they regarded the excessive accumulation of fat on their bodies as a "suit of armor" that guards them against future sexual advances (Lee 2003).

Wiederman et al. (1999) support this assertion and argue that larger women are regarded as sexually less desirable, thus making women who have experienced sexual assault and are at a greater risk of subsequent victimization to find obesity appealing. Therefore, theoretically obese bodies provide protection from future sexual advances by probable assailants. If overeating leads to the excessive accumulation of fat and the common response to excessive body fat is repugnance (Puhl and Heur 2010), then it is plausible that obese bodies may appeal to sexual assault victims. However, for both men and women within the African American community, a larger body has always been appealing (Crago et al. 1996; Lovejoy 2001; Thompson 1992; Thompson 1994), which is one reason why food is a highly popular vice among this group (Jackson et al. 2010; Striegel-Moore et. al. 2002). The danger associated with this cultural view of overweight bodies is that obesity as a warning sign of other, more serious problems may go unnoticed.

Section 3: African American females' susceptibility: Intersectional Oppression and Cultural Acceptance

African American females are members of a subjugated group of people historically oppressed by racism, sexism, and classism. Oppression occurs when any injustices are committed over time by one group's denial of another group's right to equal access to the resources of society. (Collins 2000: 4) King argues that black women face "triple jeopardy" including racism, sexism, and classism (King 1988). This intersectional oppression places African American females in uniquely vulnerable positions within society. Historically, their experiences were assumed to be like those of black males because of their race, or like white females because of gender. The condition of slavery

is one example from history of the intersectional oppressions black females faced.

African American women not only were expected to do the same physical labor as black men, but also were subjected to sexual abuse and used for reproductive labor. King further notes "Our institutionalized exploitation as the concubines, mistresses, and sexual slaves of white males distinguished our experience from that of white females' sexual oppression because it could only have existed in relation to racist and classist forms of domination" (King 1988:47). Patricia Hill Collins explains , "…the convergence of race, class, and gender oppression characteristic of U.S. slavery shaped all subsequent relationships that women of African descent had within Black American families and communities, with employers, and among one another" (Collins 2000:4).

Today, the exposure of African American females to these simultaneous oppressions remains pervasive, and distinguishes them from other minorities. King notes "No other group in America has so had their identity socialized out of existence as have black women. We are rarely recognized as a group separate and distinct from black men, or a present part of the larger group 'women' in this culture. When black people are talked about the focus tends to be on black men; and when women are talked about the focus tends to be on white women" (King 1988:45).

The system of racism leads to the marginalization of particular groups of people in relation to others. Essential to this system's growth is a principle of inferiority; groups of people are organized hierarchically ranking some classes as lower in status than others. The biased systematic ranking of groups intrinsic to the system of racism leads to the development of disparaging attitudes and perceptions towards racially castigated groups and resultant discriminatory treatment of the group's members by social institutions and

individuals (Williams and Williams-Morris 2000). The African American community has been continuously plagued by systemic racism that is manifested in the form of racial inequalities. These inequalities took the form of policies restricting the access of this marginalized group to social and economic opportunities. Gerry Veenstra argues:

> Embedded in social institutions, social structures, and bureaucracies, systemic forms of racism can limit opportunities for higher education, prestigious jobs with high salaries (or any jobs at all), health insurance and quality care and so forth for people of certain racialized identities, with repercussions for health and well-being. It can concentrate some groups of people in economically impoverished regions possessing relatively few health and social services or in segregated urban residential areas that suffer inordinately from a lack of amenities or the presence of environmental toxins, with implications for the health of area residents. In addition, discrimination on the basis of racialized identity can affect health directly via the negative psychological and physiological effects of regularly experiencing it in everyday life (Veenstra 2009:539).

Racism (many argue the same for sexism and classism) is itself an insidious and adverse contributory factor that affects the overall health of minority groups (Hummer 1996; King and Williams 1995; Williams and Williams-Morris 2000). The manifestations of racism in an institutional form are present in various forms affecting the lives of subjugated groups (Williams and Williams-Morris 2000).

Residential segregation is an example of the institutionalization of racism. Marginalized groups were relegated to residing in urban poverty-stricken areas because of racial complexes regarding black inferiority and requirements by the dominant class to have limited socialization with the inferior group. Chang (2006) argues that segregated urban residential areas that are poverty stricken has a deplorable atmosphere consisting of: poor housing, devastating schools, substandard public services, unemployment, high crime rates, families on welfare, and large concentrations of single parenthood. Chang's (2006) study finds a positive association between segregation and weight status among

African Americans, and that among non-Hispanic blacks high racial isolation is positively associated with being overweight and a higher body mass index (BMI). The author argues that residential segregation particularly affects the social and economic well-being of African Americans. The poor consumer base that is synonymous with residential areas in the African American community negatively influences the availability of quality food retail options and the provision of public recreational facilities. As a result, black neighborhoods have less access to food markets that offer healthier options to promote healthier eating behaviors. Unfortunately, what does proliferate this community are fast-food restaurants advertising unhealthy food options and promoting unhealthy eating behaviors.

According to another study, in the city of Philadelphia, female residents in neighborhoods with high black racial isolation had higher odds of obesity (Chang et al. 2009). These findings suggest that both segregation and neighborhood disorder (which is argued in the study as a consequence of residentially segregated neighborhoods) are positively associated with weight status for women, but not men (Chang et al. 2009). The authors posit that the possibility for this differentiation between the sexes may be the coping mechanism of overeating, which is commonly employed by African American women to combat stress (Chang et al. 2009). Constant exposure to these elements (segregation and neighborhood disorder) may lead to highly stressful conditions for many members of this community.

Jackson et al. (2010) examined the use of risky health by individuals under chronic stress and the association between extreme stressors and chronic health conditions, as well as the association between extreme stressors and potential diagnoses

for depression. The authors posit, "[t]hose who live in chronically stressful environments often cope with stressors by engaging in unhealthy behaviors that may have protective mental-health effects" (Jackson et al. 2010: 933). In other words, consuming comfort foods aids in biologically shutting down stress responses. They also theorize that because of the high rates of obesity observed in the African American community it is very possible that the consumption of comfort foods may be a socially accepted and gender specific response to dealing with chronic stress exposure (Jackson et al. 2010). Also, because of the proliferation of unhealthy food options within this community comfort food is easily available (Jackson et al. 2010).

The multiple and entrenched discriminations of racism, sexism, and classism are insidious. In attempts to maintain and justify power and domination by the white ruling class over blacks, pejorative labels and images were created to make racism, sexism, and poverty appear normative (Collins 2000). The image of mammy, an obese asexual subservient caregiver was one of many pejorative images created. This image was based on the black female house slave. She was in charge of domestic management and cared for and nurtured her master's children just as well if not better than her own children. She carried many pressured responsibilities with her assigned duties. Dorothy Roberts in *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty*, notes that whites saw mammy as a "passive nurturer, a mother figure who gave all without expectation of return, who not only acknowledged her inferiority to whites but who loved them" (Roberts 1997:13). Patricia Hill Collins argues that the image of the mammy was the stereotypical face that White America wanted black women to assume (Collins 2000). Lovejoy asserts that black women have a "tendency to search for emotional nurturance in

food," and claims that this is because of the historical role that African American women as nurturers and caregivers have played and the pejorative labels created to describe this role like "mammy" (Lovejoy 2001:247). Lovejoy argues that author bell hooks, in *Sisters of the Yam: Black Women and Self Recovery*, supports her argument linking African American women's current destructive relationship with food to historical roles these women were forced to fill. Hooks theorizes that the socially constructed labels of African American women as natural caregivers or "mammies" and these women's "learned impulse to meet everyone's needs but their own" has led to their harmful relationship to food.

Through personal interviews, Becky Thompson suggests that one African American woman, Retha Powers, recalled being told not to worry about her eating problem because of the acceptability of women being fat in the black community. Thompson, like Lovejoy and hooks, theorizes "Stereotypical perceptions held by her peers and teachers of the 'maternal black woman' and the 'persistent mammy-brick-house black woman image' added to Powers' difficulty in finding people willing to take her problems with food seriously" (Thompson, 1994:14-15). This is possibly because eating problems tend to signify the possession of weaknesses and vulnerabilities, which contradicts the characterization of these black females as mammies. Deborah Gray White argues "Mammy was the woman who could do anything, and do it better than anyone else" (White 1999:47). She was seemingly indestructible and the epitome of physical, spiritual, and emotional strength, thus simultaneously making her an easy target for exploitation because she can presumably tolerate it. This led to the conceptualization and construction of the pejorative label of the "Strong Black Woman."

The myth of the strong black woman is historically rooted in the need to construct images that upheld white slave-holding practices and the attempts by the African American community to define womanhood for itself (Beauboeuf-Lafontant 2003). African American females may not regard themselves as the racist image of a mammy, but there are aspects of the label strong black woman that they have come to internalize and identify with. "…(T)he strength of black women is often an ironic inversion of their deviance and a reflection of black culture and white society's failure to take seriously black women's oppression" (Beauboeuf-Lafontant 2003:114). Accepting these negative cultural stereotypes potentially leads to poor self-evaluations that have deleterious effects on psychological well-being (Williams and Williams-Morris 2000).

Beauboeuf-Lafontant (2003:114), in quoting bell hooks, theorizes that what is regarded by whites as deviant "Amazonic" like black females is really just "…stoical acceptance of situations we have been powerless to change." Both of these authors theorize that what is being perceived in the African American community as strength is often just surrendering to oppressive circumstances they feel unable to control both within and outside of their community. Beauboeuf-Lafontant (2003:115) further asserts that the pressure to be strong has many black females resultantly suffering from depression in an attempt to meet everyone's needs and they turn to engaging in "stoicism, denial, and a complete negation of their pain." She then concludes that these women may be turning to food as a means of self-medicating their mental conditions, and since overweight black women are not stigmatized within their culture or the larger society this potential coping mechanism can easily go undetected (Beauboeuf-Lafontant 2003; Hesse-Biber et al. 2004; Lovejoy 2001). Thompson also argues that, "…social stereotypes of

plump or obese Black, Latina or American Indian women may avert the therapist from examining any issues around food and body image" (Thompson 1994:12). So, the social acceptability of black women possessing overweight bodies by members of their community and, evidently by the healthcare community as well will continue to pose as a deterrent for intervention efforts. However, considering the overwhelmingly high obesity rate within this community one struggles to place the culpability solely on the obese individuals. Therefore, an attempt to provide a remedy for black women of this disorder has to take into consideration other contributory factors.

As members of a community that encourages excessive food consumption as a means of providing comfort, and accepts and praises fuller more curvaceous body types; it is understandable how compulsive overeating, as a result, may be the most often employed coping mechanism for traumatizing events like childhood s sexual abuse (Granbery and Simmons 2006; Jackson et al. 2010; Lovejoy 2001; Overstreet et al. 2010; Thompson 1992; Thompson 1994). Historically, African Americans have found it culturally advantageous to counteract white monolithic ideals of beauty that equate sexual desirability of women with slenderness (hooks 1993; Lovejoy 2001). As a result, there has been a greater acceptance of larger physical make-ups of women within this community (hooks 1993; Lovejoy 2001). In a grounded theory study in which focus group interviewing was employed, Hesse-Biber et al. (2004) support the theory that black females have positive body images and argue that it may be linked to a positive sense of racial identity. The authors posit, "wider contextual factors within the black community/culture, from peers to extended family send specific messages to young women regarding their bodies that are in stark contrast to White Western norms of

beauty" (Hesse-Biber et al. 2004:57). If fuller figures are regarded as socially acceptable for black women within black communities, the food bingeing practices that black women employ to console them during troubling times can easily go undetected. Consequently, when the stresses from sexual abuse lead African American women into an emotional abyss, they tend to eat their way through it (Lovejoy 2001; Thompson 1992; Thompson 1994). These bodily aesthetics may be a factor unique to the African American female population that strengthens the association between childhood sexual abuse and obesity among this group.

With a culture that embraces full figures easily created with excessive food consumption, coupled with problematic environmental structures, obesity has become a potential public health crisis adversely affecting African American women. African American females as members of a racialized unequal group potentially have a propensity to suffer from poor health outcomes. Despite this, whites suffer from the relationship between childhood sexual abuse and obesity too. However, the various mitigating factors such as: the historical relationship between African American females and food, greater acceptance and praise within African American communities of larger body types, counterproductive residentially segregated environments, and construction and internalization of pejorative images and labels makes these women more susceptible than women of other races. Their multiple jeopardy status affects their increased susceptibility. Constant exposure to racism, sexism, and classism clearly affects an individual's mental stress level. Therefore, the multiple jeopardy stress coupled with stress that ensues from the sexual abuse, the culturally common choice of food as a coping mechanism to ease the stress, and the blind acceptance of the ramifications of

larger bodies that develop from the excessive use of this coping mechanism gravely influences this socio-cultural dilemma.

Data and Methods

Description of the Data and Sample

This study examines if past childhood sexual abuse experiences are related to adult obesity outcomes. Is childhood sexual abuse related to high rates of obesity later in life? Is there a relationship between race and obesity? Is the prevalence of this relationship stronger for African American women than for women of other racial groups? Data for this study are from the 2009 *Behavioral Risk Factor Surveillance System* (BRFSS). Established in 1984 by the Centers for Disease Control and Prevention (CDC), the BRFSS is an annual cross-sectional nationally representative survey of non-institutionalized individuals from each state in the country (http://www.cdc.gov/BRFSS/). The data for the study contain information on health risk behaviors and outcomes and is collected using random digit dialing telephone surveys (http://www.cdc.gov/BRFSS/). Items used in the current study include self-reported height and weight, race, sex, education, income, fruit and vegetable consumption, frequency of physical activity, frequency of drinking and smoking, and a state selected optional module tapping adverse childhood experiences (ACE). Body mass index (BMI) was computed based upon the self-reported heights and weights.

In the 2009 BRFSS dataset, only five states, Arkansas, Louisiana, New Mexico, Tennessee, and Washington chose to administer the optional ACE module. Therefore, the analysis will be limited to respondents from these five states, and thus is not

representative of the overall United States especially considering that three of the states are in the southern region. BRFSS data are weighted to compensate for unequal probabilities of selection, to adjust for non-response and non-coverage of telephone calls, to secure consistent results in the population data and to predict population estimates. The data generally assume that missing participants are just like the respondents included in the same. The sample is weighted to account for the lack of representativeness. The weight is calculated for this study by dividing the calculated variable final weight[3] by the mean of each state. Table 1 displays the weighted and unweighted sample size by state, and the percentage of the total sample that each state represents. Weights are used in all subsequent analyses.

Table 1: Weighted and Unweighted Sample Size by State

	Weighted Sample Size (%)	Unweighted Sample Size (%)
Arkansas	N=3,872 (12.9%)	N=2,615 (8.7%)
Louisiana	N=6,042 (20.2%)	N=5,913 (19.7%)
New Mexico	N=2,646 (8.8%)	N=5,410 (18.1%)
Tennessee	N=8,569 (28.6%)	N=3,483 (12.8%)
Washington	N=8,828 (29.5%)	N=12,177 (40.6%)
Total	N=29,958 (100%)	N=29,958 (100.0%)

[3]Final Weight =(Post-stratification weight (_POSTSTR) multiplied by design weight (_WT2).). Post-stratification weight = (Population estimate for race/gender/age categories divided by the weighted sample frequency by race/gender/age.)
Design weight = (Stratum weight (_STRWT) multiplied by the raw weighting factor (_RAW).)
Stratum Weight = differences in the basic probability of selection among strata, the subsets of area code/prefix combinations.
Raw weighting factor = (Number of adults in the household (NUMADULT) divided by the imputed number of phones (_IMPNPH).)

Dependent Variable

The dependent variable in this study is adult obesity. Adult obesity is defined using BMI, which is calculated from height and weight information for each respondent. The dataset includes self-reported weight status in which individuals respond to the question "About how much do you weigh without shoes?" A similar question is asked for respondent's height, "About how tall are you without shoes?" From these variables BMI is calculated by taking weight in kilograms and dividing it height in meters squared. In this study, adult obesity is assessed as a dichotomous BMI variable: (1) respondents not classified as overweight/obese based on body mass index (BMI < 25.00), and (2) respondents classified as overweight/obese based on body mass index (BMI =>25.00). These classifications match the CDC's standards for BMI (CDC 2009).

Independent Variables

The independent variables used in the analyses are race, education, income, fruit and vegetable consumption, physical activity, current smoker status, binge drinking, and the ACE variable regarding acknowledgement of forced intercourse. Regarding the demographic and socioeconomic variables, the respondent's race is recoded into three categories (0) White non-Hispanic, (1) Black non-Hispanic, and (2) Hispanic. Race is self-reported by participants. This study controls for race in all analyses. White non-Hispanic is the reference category for race in models I through IX. Models X through XII split the file by race so this variable is not included in the analyses.

Socioeconomic status of respondents is assessed using education and income variables. Education is coded into six categories (1) Never attended school or only kindergarten, (2) Grades 1 through 8 (Elementary), (3) Grades 9 through 11 (Some high

school), (4) Grade 12 or GED (High school graduate), (5) College 1 year to 3 years (Some college or technical school), (6) College 4 years or more (College graduate). A five category variable was constructed to measure a respondent's income level: (1) less than 15K, (2) 15K- less than 25K, (3) 25K - less than 35K, (4) 35K- less than 50K, and (5) 50K+.

Lifestyle and behavioral measures are included in the study because they are also important predictors of obesity. The effects of abuse on obesity net of an individual's dietary, lifestyle, and exercise habits are examined as a means of better identifying the primary relationship that this research seeks to uncover. The first of the lifestyle measures is a variable that assesses an individual's exercise frequency. The respondents self-reported their physical activity level, and based on that report a variable was calculating self-reported physical activity or exercise participation. The self-reported responses were coded as "yes" or "no." The last lifestyle measure examines dietary habits. The interviewees self-reported "How often do you eat fruit?"; "Not counting juice, how often do you eat fruit?"; "Not counting carrots, potatoes, or salad, how many servings of vegetables do you usually eat?" and based on these responses a variable is calculated measuring whether the respondents "consumed five or more servings of fruits or vegetables per day." The responses were coded as "consumed less than five" or "consumed five or more."

To examine the effects of abuse on obesity net of other health risk behaviors that could potentially be alternative stress relieving mechanisms two more variables were introduced to the models. The first examines alcohol consumption. The interviewees were asked "During the past 30 days, how many days per week or per month did you

have at least one drink of any alcoholic beverage?"; and then "Considering all types of alcoholic beverages, how many times during the past 30 days did you have 4 or more drinks for women on an occasion?" Based on the responses a variable was calculated to determine if the respondent is a binge drinker, having four or more drinks on one occasion, and the responses are coded as "yes" or "no." The last examines current smoker status. The respondents were asked "Do you now smoke cigarettes every day, some days, or not at all?" A variable was calculated to determine current smoker status based on the responses, and the responses were coded as "yes" or "no." The reference category for each of these variables is the "healthy" category, i.e. "yes" for exercise, "yes" for large servings of fruits and vegetables, "no" for high alcohol consumption, and "no" for smoking.

The main independent variable used in this research is childhood sexual abuse, measured as ACE variables in the BRFSS. The ACE variables were constructed based on sample data in the Felitti et al. (1993) article, "Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences Study." The study examines individual's exposure to childhood physical, sexual, and emotional abuse and its relationship to diseases and health risk behaviors. The BRFSS quantified these exposures into eleven variables. The interviewer stated "I'd like to ask you some question about events that happened during your childhood. This information will allow us to better understand problems that may occur early in life, and may help others in the future. This is a sensitive topic and some people may feel uncomfortable with these questions. At the end of this section, I will give you a phone number for an organization that can provide information and referral for these

issues. Please keep in mind that you can ask me to skip any question you do not want to answer. All questions refer to the time period before you were 18 years of age."[4] Childhood sexual abuse is operationalized via the following survey question, "Did anyone at least five years older than you or an adult force you to have sex?" The reference category is not forced to have sex. This is recoded from the original variable (original available responses were: never, once, more than once) to assess simply whether or not the participant had been exposed to these adverse childhood sexual experiences. The variable includes missing data categories for those who refused, did not know or were unsure, and could not answer. Table 2 summarizes the descriptive statistics for all variables included in the study.

[4] Taken from the 2009 questionnaires page. Module 24: Adverse Childhood Experience. Pg. 77

Table 2: Weighted Descriptive Statistics for Independent and Dependent Variables

Variable	Categories	Frequency	Percentage
Race	White, Non-Hispanic	12,718	78%
	Black, Non-Hispanic	2,460	15.1%
	Hispanic	1,127	6.9%
BMI	Not Obese	11,188	68.6%
	Obese	5,118	31.4%
ACE: Sexual Abuse	Never Forced	15,258	93.6%
	Forced		6.4%
Education	Only Kindergarten	13	0.1%
	Elementary	372	2.3%
	Some High School	1,141	7.0%
	High School Graduate	48,777	29.9%
	Some College/Tech School	4,845	29.7%
	College Graduate	5,052	31.0%
Income	Less than 15K	1,543	9.5%
	15K - <25K	2,767	17.0%
	25K - <35K	1,608	9.9%
	35K - <50K	2,158	13.2%
	50K +	5,929	36.4%
Physical Activity	Yes	14,197	87.1%
	No	1,924	11.8%
Fruit and Vegetable Consumption	Consume <5	12,328	75.6%
	Consume >5	3,972	24.4%
Binge Drinking	Yes	1, 383	8.5%
	No	14,820	90.9%
Smoking	Yes	2,977	18.3%
	No	13,275	81.4%

***** Missing values to bring variable distribution to equal 100 are excluded from this table

Method of Analysis

Binary logistic regression is used to test the research questions introduced in this study. This method is appropriate because the dependent variable, obesity, is dichotomous. Conducting listwise deletion of the missing values in each variable led to a working sample of 15,123 respondents. Models I through IX include the race variable as a categorical variable thereby displaying odds ratios and models X through XII split the

file by race so the findings can be compared across racial categories. The statistical models employed are summarized in Table 3.

Model I answers the question of whether or not race is a direct predictor of adult obesity, and consequently if there are racial differences in obesity outcomes between white, black, and Hispanic women in the five states. Model II tests the direct effect of sexual abuse on adult obesity by race. Model III assesses the relationship of race and abuse on obesity simultaneously. The fourth and fifth models test if the relationship between race, sexual abuse, and adult obesity is robust after introducing the pertinent socioeconomic indicators education and income. These models are included to further test the strength of the original relationships of race and obesity and sexual abuse and obesity. Models VI through IX include lifestyle and behavioral indicators. Specifically, indicators for exercise (self-reported physical activity participation) and diet (whether or not respondents consumed five or more servings of fruits and vegetables per day) are included to assess healthy lifestyle in models VI and VII. This is to test if it is possible that these individuals are contracting this condition primarily because they engage in unhealthy eating behaviors and sedentary lifestyles. Then in models VIII and IX, behavioral indicators are included to control for health risk behavior including binge drinking (whether females have four or more drinks on one occasion) and current smoker status in which participants responded yes or no.

In Table 5, Models X, XI, and XII were created to test whether blacks who are abused are more likely to be obese than others who are abused**.** These models are split by the independent variable race; Model X examines the relationship between sexual abuse and obesity for each racial category. Model XI tests the robustness of the relationship

between obesity and sexual abuse by introducing the socioeconomic variables education and income. Lastly, Model XII continues to test the strength of the relationship by including the healthy lifestyle and behavioral indicator variables together. [5]

The regression models were computed within SPSS 19.0. Due to the complex sampling design, all cases were weighted in an attempt to generate more reliable variance estimates and consequently more reliable tests of significance. A graphic depiction of the analytic models is given in Table 3.

Table 3: Illustration of Analytic Models

Models	Dependent Variable	Independent Variables
1	Obesity	Race
2	Obesity	Sexual Abuse
3	Obesity	Race, Sexual Abuse
4	Obesity	Race, Abuse, Education
5	Obesity	Race, Abuse, Education, Income
6	Obesity	Race, Abuse, Education, Income, Exercise
7	Obesity	Race, Abuse, Education, Income, Exercise, Diet
8	Obesity	Race, Abuse, Education, Income, Exercise, Diet, Alcohol
9	Obesity	Race, Abuse, Education, Income, Exercise, Diet, Alcohol, Smoking
10	Race-Specific Obesity	Sexual Abuse
11	Race-Specific Obesity	Sexual Abuse, Education, Income
12	Race-Specific Obesity	Sexual Abuse, Education, Income, Exercise, Diet, Alcohol, Smoking

[5] Models incorporating the interaction effect of race and sexual abuse were included in the initial analysis but results were insignificant, so they were dropped from the final analysis.

Results

The results for models I through IX are presented in table 4. Comparing the odds ratios in the race variable in Model I, a black non-Hispanic respondent being overweight is statistically significant at 2.306, meaning that the odds for blacks are more than twice as likely as the odds for whites to be obese. The odds ratio for Hispanics is not significant. These results support previously discussed findings regarding the higher rates of obesity for blacks than any other racial group. The findings from Model I suggest preliminary evidence in support of hypothesis 1, i.e. that there is a statistically significant relationship between race and obesity. More specifically, blacks are more likely to be obese than whites and Hispanics.

In Model II, the odds ratio of being obese for a respondent who was forced to have sex as a child is nearly two times (1.910) more than a person reporting a history of not being forced to have sex as a child. This is preliminary evidence in support of hypothesis 2 in that there is a direct and significant relationship between childhood sexual abuse and obesity. The following models will test how robust the relationships between both race and sexual abuse on obesity are after controlling for various socioeconomic, behavioral, and lifestyle variables.

Model III tests the simultaneous relationship between race and childhood sexual abuse on obesity. Both variables retain their significance when modeled together. Once again, the odds ratio for blacks to be obese is more than twice that of whites (2.318) to be obese, and the odds ratio for respondents abused as children is nearly twice that (1.935) of those not abused.

Models IV and V introduce the socioeconomic variables education and income, respectively. Education and income are significant in both models, and as both levels of socioeconomic status increase the ratio of odds of being obese goes down. More importantly, when controlling for each of these variables the odds ratio for race indicates that the odds of being obese is higher for blacks than are the odds for white (2.216 in model IV, 2.086 in model V), and Hispanics remains insignificant in both models. Sexual abuse also continues to be a statistically significant predictor of obesity after introducing education and income into the equation, with odds ratios of 1.814 in model IV and 1.739 in model V.

Exercise and diet are used to assess healthy lifestyle in this study. Exercise is assessed as whether or not a respondent exercises regularly and diet is measured as whether or not a respondent eats at least five servings of fruits and vegetables a day. Both are negative predictors of obesity, meaning that even after controlling for these variables the relationship remained significant. When controlling for the healthy lifestyle variables in models VI and VII, black non-Hispanic respondents still have the highest odds ratio than other races (model VI=2.037 and model VII = 2.029). Sexual abuse also remains a strong predictor for obesity (model VI=1.716, model VII=1.728) after introducing physical activity and diet into the model. Both variables remain statistically significant with very little change in the magnitude from model I. Again, when controlling for these variables the odds ratio for Hispanics is not statistically significant.

In Models VIII and IX, health risk behavior variables are introduced. These are assessed as smoking and drinking behavior, and are significant predictors of obesity. Compared to respondents who drink less than four drinks in one sitting, the odds of

obesity for respondents who drink more than four drinks in one sitting are less than the odds for respondents who drink less than four drinks in a sitting, i.e. binge drinkers are actually less likely to be obese than respondents that are not binge drinkers (33 percent less likely in model VIII and 30 percent less likely in model IX). In terms of smoking behavior, the odds of obesity for smokers are 20 percent less than for non-smokers. When controlling for alcohol consumption and current smoker status, the odds for blacks to be obese are still statistically significant and higher than are the odds for the white reference group (Model VIII = 2.009 and Model IX = 1.973). Again, the relationship between Hispanics and obesity is not significant. These variables were included to test whether or not the respondents were possibly turning to other health risk behaviors to cope with the trauma of childhood sexual abuse.

In every regression model, as shown in table 4, the odds ratios of obesity are much higher for blacks than for other races. This is clearly a robust finding in that after incorporating a variety of lifestyle, dietary, and exercise indicators blacks continue to be the most at risk for obesity. The relationship between sexual abuse and obesity is also robust. The findings in models VIII and IX predict that the odds ratios of respondents who were sexually abused as a child to become obese as adults are 75 percent and 80 percent more likely than their non-abused counterparts, respectively. Sexual abuse is a direct predictor of obesity in model II, and continues to predict obesity after introducing all socioeconomic and behavioral variables. In every model, the odds ratios of sexually abused respondents being obese are at least 70 percent more likely than those who were not sexually abused. Clearly childhood sexual abuse is a strong precursor to adult obesity in this sample of adults.

Table 4. Binary Logistic Regression Models With Odds Ratios

	Model I OR	Model II OR	Model III OR	Model IV OR	Model V OR	Model VI OR	Model VII OR	Model VIII OR	Model IX OR
Constant	0.396***	0.437***	0.377***	0.961	1.221*	1.038	0.900	0.916	1.021
Race									
White, non-Hispanic	1.000		1.000	1.000	1.000	1.000	1.000	1.000	1.000
Black, non-Hispanic	**2.306*** **		**2.318*** **	**2.216*** **	**2.086*** **	**2.037*** **	**2.029*** **	**2.009*** *	**1.973*** *
Hispanic	1.086		1.090	1.000	0.967	1.000	0.996	1.008	0.990
Sexual Abuse									
No		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Yes		**1.910*** **	**1.935*** **	**1.814*** **	**1.739*** **	**1.716*** **	**1.728*** **	**1.750*** *	**1.799*** *
Education				0.825***	0.847***	0.867***	0.871***	0.874***	0.862***
Income					0.920***	0.921***	0.922***	0.919***	0.917***
Physical Activity									
Yes						1.000	1.000	1.000	1.000
No						1.534***	1.510***	1.500***	1.492***
Fruit and Vegetable Consumption									
Yes							1.000	1.000	1.000
No							1.165***	1.171***	1.189***
Alcohol Consumption									
No								1.000	1.000
Yes								0.671***	0.699***
Current Smoker Status									
No									1.000
Yes									0.801***
Nagelkerke R^2	0.029	0.008	0.037	0.049	0.058	0.064	0.065	0.068	0.069

*N= 15,123 all models reflect only female respondents *p<0.05, **p<0.01, ***p<0.001.
****Odds Ratio for black females is bolded displaying highest OR for each Model and Odds Ratio for Sexual Abuse is bolded

These findings support the hypothesized relationships introduced earlier in this research, i.e. that race is significantly related to adult obesity and sexual abuse is a significant predictor of adult obesity. The next analyses will investigate hypothesis 3, which explores if sexually abused black women are more likely to be obese than sexually abused women of other races.

In table 5, the relationship between abuse and obesity is stronger for black women than white or Hispanic women, even after controlling for lifestyle and behavioral variables. Model X compares the direct relationship of sexual abuse on obesity across all three races. Comparing the odds ratios in Model X, black respondents who reported a history of abuse have odds of obesity that are 2.4 times greater than the odds for those never abused. The odds for whites who were abused as children are 1.9 times more likely to be obese than their non-abused counterparts. Consistent with models I-IX, odds ratio for Hispanics is not significant. This provides preliminary evidence in support of hypothesis 3. To summarize, after doing separate analyses by respondent's race it appears that the odds of black abused respondents being obese are 30 percent greater than are the odds for white abused respondents. So, this relationship is still stronger for blacks; however; whites are not immune because the difference between the odds for blacks and whites is not very large.

Model XI tests the primary relationship of racial differences in the odds ratios of sexual abuse predicting obesity after controlling for education and income. The odds ratio remained highest for African Americans at 2.22 and was statistically significant.

The odds are also statistically significant for whites at 1.72. The odds ratio for Hispanics remains insignificant. Results of the primary relationship are essentially the same as in model X, in that blacks are more likely than whites to be obese when abused as children.

Model XII introduces the full model, i.e. the relationship of sexual abuse on odds of obesity after controlling for education, income, lifestyle, and behavioral variables. As seen in models X and XI, the sample is split by race to determine racial differences in obesity for women who were abused. Results show that blacks still have the highest odds ratio of obesity at 2.19, compared to the odds for other black women who were not abused. However, exercise and drinking do not predict obesity for blacks. Speculation about this finding will be given in the conclusions section of this research. The odds ratio of obesity for sexually abused white women is 1.81. Thus, the odds ratio of black abused respondents being obese is 30 percent greater than that of white abused respondents, similar to the previous two models. These results suggest that after controlling for socioeconomic background, lifestyle variables, and behavioral variables, black women continue to be disadvantaged in terms of sexual abuse leading to adulthood obesity. Although white women are certainly affected by this problem, they are not to the degree that is found for black women. The findings from this table support the final hypothesis, i.e. blacks who are abused are more likely to be obese than whites who are abused.

Table 5: Race-Specific Binary Logistic Regression Models; Odds Ratios

	Dependent Variable: Obesity	Model X	Model XI	Model XII
White, Non-Hispanic	Constant	0.376***	1.174	0.996
	Sexual Abuse	1.886***	1.722***	1.808***
	Education		0.855***	0.878***
	Income		0.919***	0.917***
	Physical Activity			0.605***
	Fruit and Vegetable Consumption			0.862**
	Alcohol Consumption			1.510**
	Current Smoker Status			1.170**
	Nagelkerke R2	0.008	0.018	0.027
Black, Non Hispanic	Sexual Abuse	2.444***	2.222***	2.187***
	Education		0.775***	0.761***
	Income		0.932***	0.931***
	Physical Activity			0.978
	Fruit and Vegetable Consumption			0.803*
	Alcohol Consumption			1.091
	Current Smoker Status			1.692***
	Nagelkerke R2	0.015	0.045	0.054
Hispanic	Sexual Abuse	1.133	1.128	0.946
	Education		0.979	1.017
	Income		0.876***	0.868***
	Physical Activity			0.435*
	Fruit and Vegetable Consumption			0.652*
	Alcohol Consumption			1.253
	Current Smoker Status			1.111
	Nagelkerke R2	0.000	0.002	0.029

Conclusions and Implications

Conclusions

Three findings from this study are made clear. First, it appears that the statistical models support the assertion that there is a relationship between obesity and race (The Office of Minority Health 2009). Blacks report much higher odds of obesity than other races in every model. Second, it appears that the models support the claim that there is a relationship between childhood sexual abuse and obesity. Both of these findings are robust to the inclusion of socioeconomic, lifestyle, and behavioral variables being introduced into the models, meaning that both race and childhood sexual abuse are powerful predictors of obesity in adulthood. Finally, there is statistical support for the theory that black females have a stronger susceptibility to this relationship than other racial groups. Faced with constant exposure to the multiple jeopardies that create stressful environments for these women is greatly to blame for this susceptibility. Exposure to these oppressions can adversely affect the physical well-being of African American women (Veenstra 2009; Williams, et al. 2000). However, this relationship between childhood sexual abuse and obesity affects whites as well.

Obesity is a public health crisis affecting more than a third of this country's population. Seventy two million people in the United States are obese. These numbers continue to increase regardless of age, sex, race, ethnicity, socioeconomic status, education level, or geographic region. These statistics are staggering and deplorable. This disease poses a risk to the livelihood of this nation's citizens. There are numerous long-term health risks associated with this debilitating disease including, but not limited

to: coronary heart disease, cancers (endometrial, breast, and colon), high blood pressure, stroke, and liver and gallbladder disease. Consequences affecting the overall health of individuals contracting this disease include physical, mental, and social ramifications. Contracting this disease is also costly, with medical care costs as high as $147 billion in 2008 (CDC 2010). Yet, despite these high numbers for the country in general, the numbers are even more staggering for the African American community, particularly black females (The Office of Minority Health 2009).

With disproportionate rates of contraction that have black females being 60 percent more likely to suffer from obesity than whites (The Office of Minority Health 2009), vigorous intervention efforts need to be constructed and employed. However, it must be intervention that seeks to understand all potentially mitigating factors that are possibly to blame. Blaming these victims for their condition is no longer a plausible or justifiably efficient answer in attempts to remedy these ills. This epidemic has to be systematically and vigorously addressed from all applicable academic fields that will strategically include the potential physical, psychological and social culpability. Placing a stronger focus on the role of childhood trauma, whether from sexual abuse or some other form of abuse or neglect, should probably become more of a focal point in discussions concerning adult obesity. The number of abused children who are obese later in life is very likely, and likewise the number of obese adults who were abused as children is also highly likely. Not only is obesity a public health epidemic in the United States, but it may be more of a social problem than many want to recognize.

Finally, a few questions have come to light from this analysis. Why is the independent variable for exercise not able to predict obesity for blacks? Could it be that

there are other factors potentially affecting the rates of obesity among blacks other than an individual's healthy lifestyle status? Could overall life conditions be more of a predictor of obesity for blacks than for other racial groups? These are all important points to ponder, and allude to a bigger issue of social and racial inequalities within the United States that lead to serious public health problems.

Implications

The circumstances of childhood sexual abuse leading to adulthood obesity are relevant because it affects individuals from all ethnic and cultural backgrounds, and thus needs to be addressed adequately and accurately. The first initiative that needs to be considered is declaring sexual abuse a public health problem. Cloutier, Martin and Poole (2002:265) argue, "Sexual assault of women is a serious public health problem that is pervasive within the United States." Another initiative should be the alteration of intervention initiatives that tend to focus on only curing the physical problems associated with obesity, but neglects to include the need for serious emotional therapeutic initiatives. Felitti (1993:736) suggests, "Physicians who seek to understand what is at the core of obesity must pursue a history of depression, physical or sexual abuse, and being part of a dysfunctional family. In doing so, they may increase their effectiveness at dealing with what previously has been considered a largely untreatable condition."

The myth of obesity being solely a personally responsible occurrence needs to be debunked. Puhl and Heur (2010:1020) notes, "Society regularly regards obese persons not as innocent victims, but as architects of their own ill health, personally responsible for their weight problems because of laziness and overeating." Recognizing that occurrences of childhood sexual abuse can cause obesity in some people helps to exonerate the

common perception regarding the personal culpability of individuals suffering from this debilitating health risk behavior. Society must understand and recognize that in many cases obesity is not a condition that is brought on by one's lack of personal control (e.g. inability to exercise regularly, inability to stick to a diet regimen), instead, obesity is a complex condition with several complicated contributors (e.g. environmental, cultural, biological, etc.), and the acknowledgement of this health risk behavior as a multi-faceted problem helps to improve awareness and minimize stigmas (Puhl & Heuer 2010). Therefore, treatment will need to address the multiple culprits that have led so many women, regardless of race, to suffer from obesity.

Limitations

A major limitation of this study is the limited national representation of the respondents. Only five states were included in the models because only those five states chose to ask questions regarding history of childhood sexual abuse. Of those five states, three were southern states, and the other two were western and southwestern states. So, there could potentially be a regional influence on the findings that skews the results. In fact, a South dummy variable was included in an additional analysis. However, for blacks, the relationship between abuse and obesity existed both in the South and in the non-South. For whites the relationship exists in both the South and the non-South. These findings may also be flawed because the "non-South" in this case would include only New Mexico and Washington, two states with a relatively low percentage of African Americans. Therefore, one could argue against the truly representative findings of this study. Having data from states located in other regions would have facilitated a more thorough investigation of this relationship.

Another limitation of this study is the effect of early pubertal maturation in girls. This early maturation process often times expedites puberty and is linked to obesity as well (Himes et al. 2004, Biro et al. 2003). Early maturation can potentially make young girls appear physically appealing to predators potentially leading to unwanted advances when they are least able to cope effectively with repelling the advances. Therefore, it could be that early pubertal maturation in girls increases the likelihood of sexual abuse, which then increases the likelihood of adult obesity. This is a potentially strong mitigating factor. The exclusion of measuring this effect limits what appears to be a robust relationship between childhood sexual abuse and obesity.

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