Race, Gender, Sexuality and Emotional Health: Longitudinal Effects of Body Image through the Lens of Bourdieu

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Dedication

To my wife Elizabeth … your brilliant mind inspired this work.

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Abstract

"Race, Gender, Sexuality and Emotional Health: Longitudinal Effects of Body Image through the Lens of Bourdieu"

Sociologists and social psychologists have devoted a considerable amount of attention to the research of emotional health, in the specific area of depression, and body image perceptions. Despite the abundance of research available on the topic of depression and its relationship with body image perception, there is a general lack of sociological theory-based longitudinal research focusing on the relationship of body image perceptions and depression over time. Additionally, quantitative research has traditionally examined emotional health differences by controlling for race, gender, and sexuality, rather than treating them as central theoretical variables. By framing race, gender, and sexuality as socially-constructed systems of inequality we can examine how an individual's social location within these systems affects emotional health outcomes. Furthermore, research has not examined body image perception as a mediating factor in the relationship between depressive symptoms and social structures of inequality – race, gender, and sexuality.

To fill this void, this study evaluates the influence of body image perceptions on relationships between race, gender, sexuality and depression over time using data from the National Longitudinal Study of Adolescent Health. Specifically, this research frames relationships between emotional health, body perceptions, and social systems of inequality within Pierre Bourdieu's (1989) structuralist constructivism theory, applying his concepts of field and habitus to the research areas of emotional health and beauty. My findings suggest that body image perceptions influence the relationship between race, gender, sexuality, and

depressive symptoms over time. While negative perception of attractiveness results in higher depression scores over time, its effect is simultaneously significant and insignificant within race, gender, and sexuality structures. Perceived attractiveness is significantly related to depressive symptoms over time for both men and women, but can only be explained while considering race and sexuality simultaneously. Specifically, African American men and women's depressive symptoms do not appear to be influenced by their perceived attractiveness. Regression analyses found similar results for Latino men/women. However, African American women's depressive symptoms over time are influenced by weight image; specifically, having an "overweight" image results in lower depressive symptom scores. These findings indicate that body image perception does mediate the relationship between race, gender, sexuality and depressive symptoms over time.

Our social environment saturates our bodies with images, interactions, and perceptions to the extent that we are physically and emotionally impacted. This impact thus plays a significant role in structuring our future perceptions and action. Our interactions within the social world are very important; they affect not only how we perceive our world, but how we react to it. Understanding who is more likely to be affected by negative and positive perceptions of the social world is important to enable discussion on positive emotional health.

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Introduction

Why are there disparate outcomes in depression across gender, race, and sexuality? For instance, why do women report higher levels of depression than men? Why do non-Hispanic White Americans report higher levels of depression than non-Hispanic African Americans, Latinos, Native Americans and Asian Americans? Why are individuals who are sexually attracted to both men and women more likely to report depressive symptoms than gays or straights? Socio-economic factors such as income and education have become dominant in explaining disparate emotional health outcomes (Levitt 1983; Mirowsky and Ross 1989, 1992, 2001). More recently, researchers have focused on media images and body image perceptions to explain these outcomes (Cussins 2001; Mellor et al. 2010; Ross 1994; Yuan 2010). However, quantitative research has traditionally examined emotional health "differences" by *controlling* for race, gender, and sexuality, rather than treating them as central theoretical variables, which is to say that race, gender, and sexuality can be examined as *structuring* elements of society. By framing race, gender, and sexuality as socially-constructed systems of inequality, which contribute to structuring our perceptions of the social world, we can examine how an individual's social location within these systems affects emotional health.

Prior research on depression informs us that there are differences between races, genders, and sexualities. Additionally, the scholarship informs us there are associations between body image perceptions and emotional health, and associations between body image perceptions and race, gender, and sexuality. What the literature does not indicate is the process by which body image perceptions influence the association between race, gender, sexuality, and depression. Specifically, research has not asked if body image

perceptions mediate the relationship between race, gender, sexuality, and depression in adults over time.

Sociologists and social psychologists have devoted a considerable amount of attention to the research of emotional health, in specific areas of self-esteem and depression, and body image perceptions. Despite the abundance of research available on the topic of depression and its relationship with body image perception, there is a general lack of sociological theory-based longitudinal research focusing on the relationship of body image perceptions and depression over time. Additionally, research has not examined body image perception as a mediating factor in the relationship between depressive symptoms and social structures of inequality – race, gender, and sexuality. To fill this void, this study will evaluate the influence of body image perceptions on relationships between race, gender, sexuality and depression over time using data from the National Longitudinal Study of Adolescent Health (Add Health).[1] Specifically, this research will frame relationships between emotional health, body perceptions, and social systems of inequality within Pierre Bourdieu's (1989) *structuralist constructivism* theory, applying his concepts of *field* and *habitus* to the research areas of emotional health and beauty. I treat body image perception as a position within what Bourdieu would call a "field" of beauty, and depressive symptoms as a position within a "field" of emotional health. Restated within Bourdieu's theory, this research specifically asks:

[1] This research uses data from Add Health, a program project designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris, and funded by a grant P01-HD31921 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, with cooperative funding from 17 other agencies. Special acknowledgment is due Ronald R. Rindfuss and Barbara Entwisle for assistance in the original design. Persons interested in obtaining data files from Add Health should contact Add Health, Carolina Population Center, 123 W. Franklin Street, Chapel Hill, NC 27516-2524 (addhealth@unc.edu). No direct support was received from grant P01-HD31921 for this analysis.

Is body image perception (position within the field of beauty) the mechanism through which race, gender, and sexuality affect depressive symptoms (position within the field of emotional health)?

Body image perception is also treated as a central aspect of habitus. Specifically, how an individual perceives their appearance relative to others informs their habits and reflect their position within the field of beauty. By framing these relationships within Bourdieu's conceptual framework, I expand the literature on habitus development by measuring the interaction between body image perception and depressive symptoms with multiple fields of social space, which consist of (but are not limited to) race, gender, and sexuality structures. This will provide a theoretical understanding of how social systems of inequality and the field of beauty structure schemes of perception that influence emotional health outcomes. To meet this end, the present study asks two central questions: (1) is there a significant relationship between social systems of inequality and depression, and (2) do these relationships vary by body image perceptions?

What is depression? The National Institute for Mental Health (2008) classifies depression as a serious illness, impacting an individual's ability to function and perform routine activities, causing overall strain on the individual and their social environment. While psychologists have attempted to understand the occurrence of depressive symptoms as indications of an underlying physical condition or chemical imbalance, sociological research has examined inequalities experienced throughout society – those of income, power, and prestige – and how the desolation associated with these inequalities is a fundamental social problem (Mirowsky and Ross 1989). Sociologists argue that in order to understand depression, research must focus on the social actor, or the "self" within society, rather than an isolated self that somehow exists outside social influence. Depression should

be examined as a fundamental component of identity, one that allows an individual to manage stressors – such as negative body image appraisals – and life experiences within social institutions (Caste and Burke 2002). By framing depression as a factor that influences one's social location within the *field* of emotional health, this study examines the process by which depressive symptoms are influenced by an individual's social location within the social structures of race, gender, and sexuality.

Why race, gender, and sexuality? I see race, gender, and sexuality as socially-constructed systems which influence an individual's habitus (schemes of perception). There are many other systems, or structures, or things, which inform and construct an individual's habitus (such as age, physical ability, and religion to name a few). My intent is not to limit the analysis of social structures to race, gender, and sexuality, but to focus on them to promote their use as central theoretical variables in quantitative research, vice controls. Weber states that race, class, gender, and sexuality operate as systems of inequality which "operate simultaneously and are inextricably intertwined […] [and] must be examined together (2010, v). Examining relationships between depressive symptoms and social systems of inequality is significant to expanding Bourdieu's concepts of fields and habitus. An individual's "location" within race, gender, and sexuality structures influence their perceptions (habitus) of the social world. However, as I will describe in detail in Chapter 2, an individual's habitus is not static, and may therefore change or be influenced by other social systems, or institutions, or "things", such as education as a system or institution, or media images and messages as social "things". Therefore, our perceptions (*habitus*) are simultaneously structured by, and influence, our interaction within and across social institutions.

Why body image perceptions? Body studies, to include body image perceptions and body dissatisfaction, have assumed an increasingly significant role in social science research over the past two decades. Recently, the concept of body image perception had been applied to emotional health research in an effort to contribute to a deeper understanding of relations between the self and society, emotion and affect, and structure and agency (Mellor et al. 2010; Yuan 2010). Negative body image perceptions have been associated with discomfort and anxiety in interpersonal relations (Cash, Theiralt, and Annis 2004), negative psychological well-being (Yuan, 2010), and poor weight control practices (Leichty 2010), but lack a simultaneous examination and analysis across social systems of inequality. By treating race, gender, and sexuality as structuring variables, I will explain how depressive symptom outcomes are influenced by the body image perceptions in ways that are patterned by the relationship between body image perceptions and race, gender, and sexuality structures. This is the intent of the present study.

One of the leading arguments within body studies suggests that bodies are socially constructed objects, dependent on a specific time within a specific culture (Orbach 2009). The general premise places our bodies – to include body image and emotional health – within the realm of social structures that determine our economic, familial, educational, and overall social position, relative to dominant social hierarchies established in race, gender, and sexuality systems of oppression. Referred to as social location, our position within the complex web of race, gender, and sexuality structures can impact the ways in which we internalize our environment and formulate our identity (Weber 2010). Particularly influential in our environment is the pervasive nature of media images depicting idealized body images, which act as a psychological stressor. Nolen-Hoeksema suggests that women experience stressors from idealized images more frequently than men and may be "more

vulnerable" to develop depressive symptoms (2001:176). "Differences" by gender in body image perception may stem from cultural misperceptions of the ideal body type for men and women (Bergstrom and Neighbors 2006). Negative body image perceptions and body distortion has been shown to indicate unsafe weight-loss behavior for women (Liechty 2010), increases in depression for men (Agliata and Tantleff-Dunn 2004), and fear of intimacy and social attachment in men and women (Cash et al. 2004).

Review of prior literature has alluded to "differences" in depressive symptom development due to identity conflicts within a hetero-dominant society. Additionally, research has indicated differing levels of body dissatisfaction between gay and straight men, suggesting gay men may be more at risk for developing negative body appraisals due to peer pressure for an "ideal" male body image (Hospers and Jansen 2005). Although Hospers and Jansen have assisted in an understanding of differences among sexual identity in men, there remains a need to explore how negative body image perceptions may be patterned by sexuality, gender, and race. A focus on the effects of body image perceptions on the relationship between emotional health outcomes across sexual identities, which accounts for women and bisexuals, should promote future research that accounts for social location within gender and sexuality structures. There remains however, a need to expand these analyses by race to determine how the intersection of race, gender, and sexuality influences emotional health outcomes.

From Harriet Martineau's *Morals and Manners* to Cynthia Enloe's (2000) *Manuevers*, and more recently Susie Orbach's (2009) *Bodies*, sociologists have sought to examine the influence of social structures on individuals. As more research focuses on the effects of body image perceptions on emotional health (Agliata and Tantleff-Dunn 2004; Mellor et al. 2010; Ross 1994; Yuan 2010), the need to explore how this relationship is intertwined with

social structures of race, gender and sexuality is apparent. While prior research has traditionally examined depression "differences" by race, gender, and class the present study focuses on how these "differences" change when self-perceptions are examined. Prior research has assumed that the *association* between body image perceptions and depression is a direct association and has not examined whether the association is influenced by an individual's social location within race, gender, and sexuality structures. Specifically, research has not examined if body image perception is a mechanism through which race, gender, and sexuality affect depressive symptoms. By framing relationships within Bourdieu's (1989) theory of structuralist constructivism, this study intends to contribute to social research within the areas of depression, body image perception, and social structures of inequality. The analysis of data at two time intervals will establish relationships over time and will promote future research in determining the intricate nature of emotional heath outcomes.

Chapter 1 provides an overview of the relevant literature on depression and body image. First, a review of depression and body image as independent concepts will provide context to examining the relationship between depression and body image. Next, the review examines both depression and body image simultaneously across gender, race, and sexuality separately to report on current findings and establish a basis for examining this relationship across their intersections. Chapter 2 explores Bourdieu's theoretical framework of fields and habitus and advances the consideration of two fields relevant to this study: the field of beauty and the field of emotional health. By establishing theses fields as present and structuring within Bourdieu's social space, we can explore their relation to, and interaction with, schemes of perception. Chapter 3 provides the methodological framework employed in this study. Using Add Health data from Waves III and IV, this section develops coding schemas for all variables to be examined, and will report characteristics of the sample under

study. Chapter 4 reports findings of multiple regression analyses on the relationship between body image perceptions and depression within gender, race, and sexuality systems. Chapter 5 discusses these findings within the context of Bourdieu's structuralist constructivism theory and the framework established in Chapter 2. Chapter 6 will addresses the present study's limitations and directions for future research.

Chapter 1: Literature Review

Depression

Before we can understand depressive symptoms as an outcome of the relationship between race, gender, and sexuality structures and body image perceptions, we must first understand the nature of initial relationships between depression and these structures. Specifically, a review of depressive symptom outcomes by race, gender, and sexuality in prior research will assist in analyzing the effect of body image perceptions on this relationship. The scholarship on depression is extensive, ranging from cognitive processes to psychosocial aspects. Prior studies on the social elements of depression examine the role of race (Golding and Aneshensel 1989; Hiott, Grzywacz, Arcury and Quandt 2006; Levitt et al. 1983; Mirowsky and Ross 1989; Ying, Lee, Tsai, Yeh and Huang 2000), gender (Hamen and Shih 2008; Hopcroft and Bradley 2007; Lewinsohn et al. 1988; Nolen-Hoeksema 1990, 2001; Mirowsky and Ross 1989), education (Reynolds and Baird 2010), socioeconomic status (Levitt et al. 1983; Lewinsohn et al. 1988; Mirowsky and Ross 1989), relationship status (Levitt, Lubin and Brooks 1983; Mirowsky and Ross 1989, 1992; Whisman and Kaiser 2008), and age (Levitt et al. 1983; Lewinsohn, Hoberman and Rosenbaum 1988; Mirowsky, 1996; Mirowsky and Ross 1989, 1992, 1992a; Nolen-Hoeksema 1990).

Social Structures

The scholarship on depression has examined its stratification across race, gender, age, and socioeconomic status. There is general agreement within the literature that women, on average, experience higher levels of depression than men (Levitt 1983;

Lewinsohn et al. 1988; Mirowsky and Ross 1989; Nolen-Hoeksema 1990, 2001). This is consistent with findings from the 2009 *National Survey on Drug Use and Health* where 8.2 percent of women, compared to 4.8 percent of men, reported a major depressive episode during 2009 (SAMHSA 2010). As previously stated, research suggests that women are more vulnerable to develop depressive symptoms since they encounter external stressors more frequently than men (Nolen-Hoeksema 2001:176). The proliferation of "idealized" body images in society by the media provides valuable insight into the potential effects of body image perception in the relationship between social structures of inequality and depression, particularly with gender, but does not uncover differing effects across race and sexuality. Depression has been observed to be lowest for middle-aged people, higher among young and old adults, and highest for the elderly (Mirowsky and Ross 1992; SAMHSA 2010). Research has shown that depression levels decrease from ages 20 to 45 and then increase thereafter, indicating a curvilinear relationship between age and depression (Mirowsky and Ross 1989). However, Mirowsky (1996) found that mean levels of depression drop faster for men than women as they age. Research has also suggested that the curvilinear relationship may be a function of the gain and loss of wealth, jobs, and partners over the life course, and it is the interaction of these variables over time that affect depression outcomes (Mirowsky and Ross 1989, 1992). Survey data indicates that depressive episodes are most often reported by women, individuals with some college, the unemployed, and individuals with family incomes less than $50,000 a year (SAMHSA 2010). Additionally, Mirowsky (1996) attributes observed differences between men and women to a gender gap, created by unequal status relationships in society involving education, income, and occupation, which interact differently between men and women as they enter adulthood.

Levitt (1983) found that women on average respond higher to self-reported depression indicators than men and was consistent across racial categories. Contrary to Levitt (1983), research has suggested similarities between men and women when a specific gender/race intersection was examined. Specifically, Hiott et al. (2006) found no difference between immigrant Latino men and women when examining depressive symptoms, but did not examine differences within separate race categories. Research has suggested African-Americans have higher levels of psychological distress than whites and may be more depression-prone (Levitt 1983; Mirowsky and Ross 1980); however, this finding may be more attributed to socioeconomic status than racial category (Mirowsky and Ross 1980). Contrary to Levitt's (1983) findings, survey data indicates that non-Hispanic Whites reported a higher occurrence of depressive episodes than non-Hispanic Blacks, Native Americans, and Latinos (SAMHSA 2010). Mirowsky and Ross (1989) consider socio-economic status as a significant contributor to depression, stating "the people at the bottom of society are the most burdened with chronic hardship, barriers to achievement, inequality, victimization, and exploitation" which may contribute to differences in depression levels across social categories (95).

The scholarship examining the relationship between income and depression is in considerable agreement, identifying the significance of economic hardship (Levitt 1983; Lewinsohn et al. 1988; Mirowsky and Ross 1989, 2001) on depressive symptoms; although, Hiott et al. (2006) found no significant relationship between economic hardship and depression when examining immigrant Latinos. Income is "highly correlated" with depression, with those earning less than $5,000 annually scoring the highest on depression scales (Levitt 1983, 142). Levitt (1983) contends the relationship between income and depression is curvilinear, which is supported by Mirowsky and Ross's (1989) findings of a

relationship between income and depression in all age groups but a greater effect among older adults. Although there is significant support for the income-depression relationship, Mirowsky and Ross (2001) argue that income and depression may be related through perceived control; an individual with a high paying job may feel more in control of their life than someone who is earning significantly less. This presence or lack of perceived control affects the individual psychologically, potentially leading to the development of depressive symptoms.

In concert with income effects are the potential effects of education level on depression. Generally, we envision that those with the highest paying jobs are more likely the most educated, though this is not necessarily representative of all high-paying jobs, where longevity and corporate knowledge factor into wage levels. Therefore, an association between income and education will likely represent a combined effect on depressive symptoms. Research indicates that lower education levels are associated with higher levels of depression (Levitt 1983; Mirowsky and Ross 1989, 1992). Mirowsky and Ross (1992) contend that the average level of education has increased in America over successive generations; as a result, they suggest that some depression may be attributed to advancing age, but may actually reflect higher depression among those with lower education (Mirowsky and Ross 1992). Contrary to these findings and suggestions, the 2009 *National Survey on Drug Use and Health* indicated individuals who completed high school and some college reported more instances of depressive episodes than individuals who had completed college or failed to complete high school (SAMHSA 2010). Although the literature is in agreement on the role of education as a predictor of depression, it is important to distinguish between educational attainment and educational expectation, the latter of which has been attributed to depression and anxiety (Dannefer 2000). On the

other hand, Reynolds and Baird's (2010) comprehensive study of unrealized educational expectations in both Add Health data and the National Longitudinal Survey of Youth (NLSY) database revealed no significant relationship between unmet educational expectations and depression.

What has been lacking in the body of research on depression is a focus on how depression varies by sexuality, although the literature on depression among gays and lesbians is growing. Research has suggested that lesbians and gay men experience social stressors differently than their straight counterparts (Lewis et al. 2002; Oetjen and Rothblum 2000). Additionally, Oetjen and Rothblum (2000) contend that depression research focusing on marital status does not accurately portray interpersonal relationships in society since many in the gay community cannot be married legally. Specifically, they found that relationship status and relationship satisfaction are not significant predictors of depression for lesbians as they are for straight women, but did find a significant negative correlation between education level and depression for lesbians (Oetjen and Rothblum 2000). There is precedent to suggest there are differences in depression levels among separate sexual orientations. For example, in a study of over 90,000 female nurses ages 32-51 in the U.S., Case et al. (2004) found that lesbians and bisexuals were more likely to score higher on depression scales than their straight counterparts.

Importance of Relationships

Interpersonal relationships function as a social support network; therefore, it is not surprising to find that social scientists have examined the importance of these relationships on a host of emotional health outcomes, such as depression. Research has suggested marital status is "an important integrator of social interaction," and the support

provided by these relationships can result in decreased distress levels (Mirowsky and Ross 1989: 141). Overall, research suggests that being married is associated with lower distress levels than the unmarried (Levitt et al. 1983; Lewinsohn et al. 1988; Mirowsky and Ross 1989). Specifically, Levitt (1983) found that the highest rates of depression were reported by divorced or separated white females. There is some disagreement, however, between leading researchers. Mirowsky and Ross (1989) suggest single adults have similar levels of distress as divorced and separated individuals, who they claim are more distressed than married people. On the other hand, Levitt (1983) found the lowest rates among single women that never married, with the absolute lowest depression levels among white women. This could be attributed to supportive relationships with relatives, parents, or friends that provide a similar interpersonal connection and support network to that of married people (Mirowsky and Ross 1989).

In summary, the literature on depression suggests differences by race, gender, sexuality, age, marital status, income, and education levels as separate systems. However, if we examine the body of literature from an intersectional perspective – that considers race, gender, and sexuality as interconnected structures of inequality that must be examined together – we can hypothesize where an individual is likely to be positioned within a scale of depressive symptom outcomes. On one end of the scale indicating low depressive symptoms we would expect, based on the literature, to find wealthy, middle-age, married, highly educated non Hispanic-White males. On the opposite side indicating high levels of depressive symptoms, we would expect to find poor, elderly, divorced or single, less-educated, non-Hispanic White females. But from the literature we know this is not representative of the issue. Although non-Hispanic Whites report depressive symptoms more frequently when compared to African Americans, their education levels,

income, age, and marital status differ greatly. Prior research has controlled for these variables when examining non-Hispanic Whites or non-Hispanic African Americans separately, but have yet to conduct analyses across race and gender simultaneously. Therefore, this study will conduct analyses by subpopulations of intersecting races, genders, and sexualities while controlling for education level and additional factors, such as age and income, to determine the affects of race, gender, and sexuality structures on depression. In addition to examining social structures of inequality, this study will focus on the role of body image perceptions which may shape depressive symptom outcomes, a subject to which we now turn.

Body Image Perception

Historically, body image has been defined as "the picture of our own body which we form in our mind" (Schilder 1950:11). While this contributes to the advancement of understanding perception, it does not address the array of structural factors affecting individuals. An individual is not closed off from society, experiencing only innate thought and perception; they are impacted by interpersonal relationships and social structures. Although body image is psychological in nature, its formation is affected by society (Grogan 1999). Here, Grogan contends that individuals rely on cultural and institutional references, media, and family, as a reference for their self-appraisals. Media, language, family, and education play a role in society's formation of classifications. We judge ourselves based on our surroundings, project our appraisals on to others, and experience our own appraisals both individually and collectively. Cash and Pruzinsky (2002) have recognized the importance that body image has on our private and public relationships, noting its fundamental nature to understanding how an individual functions. This

functioning may present itself in the effects of body image perception on depressive outcomes across race, gender, and sexuality.

Traditionally, body image studies have either examined the potential causes or mental and physical health effects of body dissatisfaction. The current literature focuses on the causes of body dissatisfaction, particularly studying the effect of idealized media images (Agliata and Tantleff-Dunn 2004; Brown 2005; Dittmar 2009; Englen-Maddox 2005; Levine and Murnen 2009; Tiggemann and McGill 2004; Tiggemann 2006, 2009), and the construction of negative body images from culture and family (Haworth-Hoeppner 2000). Although predictors of negative body image are not the focus or intent of the present study, an analysis of the current research trends shed light on the social nature and construction of negative body images.

The relevance of the media's impact on body images stems from beauty ideal stereotyping in music television and popular American magazines (Englis, Solomon and Ashmore 1994), and targeted consumer products depicting ideal body messages to men, women, and children (Orbach 2009). Research on exposure to idealized body images has suggested an increase in body dissatisfaction and depression in men (Agliata and Tantleff-Dunn 2009) and women (Tiggemann 2009), though some researchers suggests there lacks a casual relationship between media images and body dissatisfaction (Levine 2009; Tiggemann 2006), though this finding is limited to adolescent females. However, Agliata and Tantleff-Dunn's (2009) findings provide insight into potential relationships between body image perceptions and depression by examining the psychological process of body dissatisfaction and its associated outcomes. Body image research has also examined the potential effects of negative body images, focusing on poor weight control behavior (Liechty 2010), low self-esteem (Cash et al. 2004; Lovejoy 2001; Thompson and

Hirshman 2005; Vartanian 2009; Yuan 2010), high levels of social anxiety (Cash et al., 2004), and depression (Agliata and Tantleff-Dunn 2009, Darby et al. 2007; Dugan and McCreary 2004; Noles, Cash and Winstead 1985; Ross 1994; Wiederman and Pryor 2000; Wrench and Knapp 2008; Yuan 2010).

Earlier studies on the relationship between body image and depression have found that individuals with a poor body image are significantly more likely to report depressive symptoms when compared to groups with normal or positive body image assessments (Noles, Cash and Winstead 1985). Recently, Yuan (2010) indicated that perceptual measures such as body image are more strongly related to psychological well-being, such as depressive symptoms, than more objective measures such as Body Mass Index (BMI). As we examine the construct of *body image*, factors such as weight image, perceived attractiveness, dieting, and reflected appraisals come to mind. Noles, Cash and Winstead (1985) reversed variable ordering to examine the effects of depression on body image. They found that depressed individuals reported less positive body image assessments than non-depressed individuals. Additionally, they found no significant relationship between depression and perceived physical attractiveness (Cash, Noles, and Winstead 1985). Studies have, however, revealed no direct relationship between weight and depression (Mirowsky and Ross 1989; Ross 1994). Ross (1994) found that being overweight is associated with depression only when physical functioning, such as exercise, and dieting are controlled for. Mirowsky and Ross (1989) attribute the lack of findings to the role of interpersonal relationships – it is possible that overweight or obese individuals have "friendship networks" that block society's negative evaluation of them (113).

Traditionally, body image studies have examined differences in young women, though in the last decade we have seen a rise in studies examining the role of body image

and perception in men (Agliata and Tantleff-Dunn 2004; Fan, Dai, Lu and Wu 2005; Webb, Looby and Fults-McMurtery 2004), and adolescents (Yuan 2010). Additionally, studies have examined differences in body image perceptions and psychological well-being across gender (Cash et al. 2004; Levine and Smolak 2002; Streigel-Moore and Franko 2002; Vartanian 2009), race (Lovejoy 2001; Webb et al. 2004), and sexuality (Hospers and Jansen 2005; Wrench and Knapp 2008). The current literature suggest significant differences in body image perceptions and psychological well-being across race, gender, and sexuality, yet most studies have failed to examine these relationships over time.

Body Image and Depression

Rosenberg (1989) stated "we cannot understand the differences in women without looking at the differences in men" (xviii). Research has indicated that women report greater body dissatisfaction than men (Vartanian 2009). Additionally, Streigel-Moore and Franko (2002) suggest that women are more likely to experience body image concerns than men. Previously stated, women, on average, report higher levels of depression than men (Hopcroft and Bradley 2007; Lewinsohn et al. 1988; Mirowsky and Ross 1989; Nolen-Hoeksema 1990, 2001). This provides insight into how gender may shape outcomes in body image perception and depressive symptoms – such that any observed relationship between body image perception and depression is likely to be found more prevalent with women than with men. In a longitudinal study examining the relationship between depression and body perceptions in adolescents from Add Health Waves I and II, Yuan (2010) found that body perceptions were associated with a change in depressive symptoms over time for girls, but not for boys. Specifically, Yuan (2010) found that being overweight corresponds with higher depressive symptom scores over

time for girls aged 18-20. Given that the present study is utilizing Add Health Waves III and IV, we will examine if this relationship exists over time into adulthood although factors such as perceived physical development will not be examined as an aspect of body image perception due to non-applicability in adults.

Recent sociological studies suggest there is considerable variation in ideal body types and depression across cultures; however, few studies examine racial differences in the relationship between these two variables. For instance, Jackson (2002) suggests that Caucasian women are less satisfied with their bodies than their Hispanic, African American and Native American counterparts. Additionally, researchers have stated that the African American community has a "unique view of ideal weight and body size compared to white mainstream culture" (Celio, Zabinsky and Wilfney, 2002:235). This strengthens Jackson's (2002) claim for differences between Caucasian and African American women, and suggests we should expect to find differential depression outcomes based upon body image perceptions and an individual's location within race, gender, and sexuality structures.

Yuan's (2010) examination of adolescent body image perceptions and psychological well-being found several differences across racial categories. First, she found that being overweight is associated with an increase in depressive symptoms over time for White non-Hispanic adolescent females, but found no such relationship for African American non-Hispanic adolescent females. Second, she found a relationship between relative physical development and depression for Hispanic and Asian American adolescent females; although these findings cannot be replicated in adult studies, they do indicate potential differences in the development of body image perceptions across racial categories. Lastly, Yuan (2010) found that being overweight resulted in lower depressive

symptoms for Asian American adolescent males, but found no other relationships between body image perceptions and depressive symptoms among remaining adolescent male racial categories. Based on prior research on adolescents, we should expect to observe differences in depressive symptoms across racial categories, though no significant endeavors have examined outcomes in relation to body image perceptions for adults.

There is a growing need for research that examines the relationship between body image perceptions and depression for gays, lesbians, and bisexuals. Considering that studies have found gay men are more likely to be concerned with thinness than their straight counterparts (Duggan and McCreary 2004), examining how these differences influence depression is important. When considering only body image perceptions, Rothblum (2002) states that bisexual data in particular is lacking, a finding the present study intends to address. One recent study has, however, examined relationships between body image and depression in gays, lesbians, and bisexuals. Wrench and Knapp (2008) found that gay/bisexual men reported significantly higher levels of depression and image fixation than lesbian/bisexual women. Furthermore, they indicate that these experiences are different for lesbians, gays, and bisexuals when compared to straight men and women. However, Wrench and Knapp (2008) did not distinguish between gay/lesbian and bisexuals in their study, confirming Rothblum's (2002) prior assertion that bisexual data is lacking. The general lack of research examining differences in sexual orientations (to include straight men/women and those who do not identify with traditional sexuality labels) provides a unique opportunity to contribute to the literature in this regard.

Summary

Although depression has previously been associated with negative body image perceptions, research in this area lacks a comprehensive examination across social systems of inequality. Additionally, there is a lack of sociological theory-based longitudinal research focusing on the relationship of body image perceptions and depression over time. Using Bourdieu's (1989) *structuralist constructivism* paradigm, this study will explain how body image perception acts as a mechanism through which race, gender, and sexuality structures influence depressive symptoms though interaction with multiple fields within social space.

Chapter 2: Theoretical Background

While identifying differences among groups in society – based specifically on race, gender, and sexual orientation – is an important task, we must also be able to explain the process of how observed differences manifest and interact with each other. In my examination of differences in body image perceptions and depressive symptoms across social groups, I explain differing emotional outcomes through a specific theoretical lens. Emotions seem like personal, private, internal things perhaps best left to psychologists, and yet even the earliest sociological theorists (e.g., Emile Durkheim (1897) in *Suicide*) have demonstrated that we can understand private matters such as emotions as elements of societies – not just as characteristics of individuals. In more recent work, Pierre Bourdieu's (1989) *structuralist constructivism* paradigm allows us to understand differences in the social world as a manifestation of the relationship between elements of what he calls the "objective world," and a "subjective world" constructed from individual perception and experience (1989). I make use of this unique framework to better understand how body image perception can lead to depression in ways that are patterned by race, gender, and sexuality structures.

Using Bourdieu's theory of social space within a longitudinal quantitative framework will assist in explaining the process of field interaction at two points in time. This is not meant to be definitive of field interaction over the life course, but to present a framework for studying social influences, processes, and outcomes within Bourdieu's (1989) *structuralist constructivism* paradigm. By explaining how the field of beauty interacts with an actor's social location within race, gender, and sexuality structures over time, we will

establish whether body image perception is a mechanism through which race, gender, and sexuality systems affect depressive symptom outcomes within the field of emotional health.

Structuralist Constructivism

Independent of an individual's free will and consciousness, the "objective structures" in Bourdieu's (1989) *structuralist constructivism* paradigm assist in the control of social practices (1989:14). One such "objective structure", known as "social space", or more specifically where social interaction is structured, will be discussed in detail to follow. Yet individuals also have the ability to participate in the "construction" of their social environments based upon personal experiences and their perceptions of the objective social space. Only by understanding the interplay between the objective and subjective can we gain a holistic account of the social world. Bourdieu calls the sets of dispositions that reflect an individual's perceptions and unique experiences "habitus," and argues that habitus is intimately related to the relative position any person occupies within a "structure of agents," otherwise termed "social space" (1989:15). The "structure of agents" is regionalized by separate, yet combined, areas or "fields" where power relations between dominant and subordinate groups produce objective distances within social space (Bourdieu 1984). I elaborate the concepts of social space, field, and habitus in what follows.

Social Space

For Bourdieu, social space is "a structure of objective relations which determines the possible form of interactions and of the representations the interactors can have on them" (1984: 244). If we consider an individual's position in society – based on economic,

cultural, and social factors – as being relative to another individual's position, we are discussing a distance within some classification of space. If we were thinking in terms of geographic space, distances on a map would be characterized by specific terrains -- rocky, flat, or mountainous, for instance. A rocky terrain could be representative of complex inequalities between social locations, such that it would be very difficult for an individual to traverse this distance and "change" their social location. The regions in this geographic space would be delineated by a similar factor, such as the area's position within the overall geography or its land characteristics. In social space, the terrain is defined by capital, namely the value of social networks determined by power relations of domination and subordination. Therefore, regions in social space can have multiple "terrains", characterized by capital within the regions that may or may not produce inequality. Within this social space we can liken regions to the concept Bourdieu (1984) calls "fields."

Bourdieu's (1984) "fields" are perhaps one of the most difficult of his concepts to define, as it incorporates power relations, inequalities, social positions, schemes of perceptions, and a host of additional factors which affect social actors. The field can be best described as an area where social actors compete for the legitimacy of their capital from a social position relative to others, or as Helen Colley (2003) defines it: "a game with its own rules which structures the ways in which players act through the relations of power which exist between them, but is also structured by their […] individual interpretation of the game (536). Each field contains multiple social actors, whose positions in the field determine their similarities to others: the closer an individual is to another in a field, the more common "properties" they share. The field functions as "a space of lifestyles and status groups characterized by different lifestyles" (Bourdieu 1989:20). For Bourdieu, multiple fields exist in social space, ranging from economic to

political and from education to culture, all operating simultaneously with the predominant fields of power and class. Fields can overlap, but each is defined by specific rules and norms, and power operates in every field through internal struggles over the value of social resources, or capital. A field—or "systematic manner of relating" (Cargile 2011:12)—in fact, is formed through power relations and the struggle over capital, which only has meaning within a specific field (Zembylas 2007). Comprising the field are sites – areas where games structure individual action (Colley 2003) – of subordination and domination over the legitimacy of capital relative to the field. In the field of education, for instance, the value of capital placed on a law degree from Harvard is high, where a law degree from an online institution, such as Kaplan University, would hold low educational capital. For beauty, we could argue that thin waists and long legs on women are valued by men. In this example, women possessing these attributes would have a higher "beauty capital" than women with large waists and shorter legs. The assignment of this value is a representation of the fields of power and class operating across the field of education, or as I will present below, the field of beauty, in social space. These structures (fields) assist in the distribution and accumulation of capital, but we cannot fully understand a field without considering the subjective experience of actors within it and how their social positions within complex, overlapping fields shape their perceptions of our social world.

Habitus

The habitus is characterized by an individual's "scheme of perception, thought, and action" relevant to his or her participation in a field (Bourdieu, 1989:14). How an individual perceives the space in which they operate informs habits that reflect the position they occupy within the social world. For instance, as a sociology graduate student, I perceive my

position with the field of education as distant from both the university professor's and the undergraduate's, for I have less educational capital than the professor, but more than the undergraduate. Therefore, I will conduct my affairs with the professor in a different manner than would the undergraduate student, for I operate under a scheme of perception that legitimizes distance within my social world. For instance, it is common for graduate students to address their professors on a first name basis, yet it would be unprofessional or impolite for an undergraduate to do the same. If I was talking in terms of beauty, a muscular man running with his shirt off would likely be perceived as acceptable by observers. The runner, perceiving his position within a field of beauty, would likely find his own behavior acceptable and would likely not receive criticism for his actions based on his appearance. However, if an obese man was running with his shirt off, the social response may negative. These negative responses would contribute to his understanding, or perception, of his position within the field of beauty. Therefore, actions in the field, dependent on perception of the relations within it, constitute the habitus. Habitus is both "structured and structuring, because it incorporates *pre*dispositions created by factors such as social class and gender, as well as more individual aspects" (Colley 2003: 537, emphasis in original). Habitus can thus not only explain *why* an individual behaves, thinks, or acts in a certain manner as a result of structured predispositions created by the fields, but also *how* an individual responds to further interaction with the fields. Therefore, habitus can be envisioned as "a set of embodied practices" which are a product of prior experiences, strongly influenced by historical, social, and cultural contexts; in other words, the concept of habitus is dynamic and not static (Zembylas 2007: 448). The manner in which habitus structures an individual's actions, to include body movements and bodily practices, can be attributed to embodiment.

Despite criticism that the habitus is fixed and deterministic, such that the field creates the habitus and habitus therefore reproduces the field, some argue that change can be introduced into the habitus through reflexivity (Cargile 2011). These reflexive dispositions can be interpreted as part of the pre-reflexive unconscious; such that schemes of perception represent personified predispositions which are unknown to the individual. For instance, we may examine depression as an outcome of unconscious reflexivity due to the ways race, gender, sexuality, and body image have structured our habitus. Habitus may not exist without an embodied social location structured within the fields of social space. Therefore, we establish the subjective experience, one of personal practice and interpretation, and an objective experience in the structure of social space. Although habitus may be structuring, it only impacts the manner in which the structure of space overlaps and becomes multi-dimensional, or in simpler terms the way the fields overlap to influence and shape the habitus.

The concept of habitus can be expanded through an explanation of Bourdieu's (1984) portrayal of emotions, which is integral to discussing emotional health. Bourdieu envisions emotion as an integral aspect of *strategies*: modes of response and action within social space grounded in schemes of perception, or habitus (Emirbayer and Goldberg 2005). Since Bourdieu describes habitus as the *social* embodied, we can describe habitus within the context of its interaction within the fields. Therefore, cultural experience and interpretation – obtained through our intersection within race, gender, and sexuality structures – of emotional embodiment varies depending on our social location within the multiple fields (Zembylas 2007). Cargile (2011) asserts that "as an embodied habitus encounters new fields, all sorts of behaviors novel in those circumstances become pre-reflexively manifest" (15). It is in this embodiment of emotions, through interaction

within the field of beauty to be discussed below, that the individual's habitus pre-reflexively determines, through strategies, the location of a social actor within the field of emotional health.

Relevance

Within the structuralist contructivism paradigm, there exist multiple fields based upon power relationships which develop from the evaluation and devaluation of social, political, and economic capital available to society (Bourdieu 1989). The level of overall capital attained by an individual in society is based upon the value assigned to it through negotiations of dominance within fields. The ways in which these negotiations are patterned by race, gender, and sexuality, and the processes through which people are oppressed or disadvantaged due to outcomes of the negotiations, are important to examine. As discussed earlier, we may examine depression as a likely outcome of unconscious reflexivity of the habitus based on the devaluation of individual qualities within multiple fields. Using Bourdieu's (1989) structuralist constructivism paradigm, we can approach issues of race, gender, and sexuality from a vantage point that suggests difference among "groups" based upon the development and generative properties of the habitus; "groups" may be addressed due to individuals occupying similar social locations within a field.

In the present study, I identify two fields—the field of beauty and the field of emotional health—that allow me to examine the manner in which social positions within these fields influence habitus. Specifically, within the field of emotional health, the evaluation of depressive symptoms will illuminate the complex and dynamic nature of the habitus as developed within and between the multiple fields of social space, and between

social actors within the fields. This study asks if body image perception (which is to say a social location within the field of beauty) is the mechanism through which race, gender, and sexuality affect depressive symptoms (which is to say a social location within the field of emotional health). In the following section, I present the field of emotional health and the field of beauty to conceptualize interaction with the multiple fields of social space.

The Field of Emotional Health

The field of emotional health is a region within social space where social actors experience subjective emotions based upon their habitus. Specifically, recognition of distance within the multiple fields of social space manifests within the field of emotional health to produce affective states, such as happiness, sadness, confidence, and depression to name a few. As stated previously, "distance" in social space is the objective space between social actors within a field, based upon how capital within the field is valued or devalued; perception of this objective distance is the subjective experience. The advancement of a field of emotional health requires an explanation of the field's boundaries, rules, and norms. As fields are sites of domination and subordination, these parameters must also be addressed to facilitate discourse on emotional states. For the purposes of this study, depressive symptoms will establish a boundary within the field. The field of emotional health is a site of power relations defined by its professionals: mental health professionals – psychologists, psychiatrists, and counselors – define the rules of the field through descriptors of emotional states. Professionals within the field of emotional health may be likened to university professors within the field of education, or to politicians and the corporate elite in the field of economics. These comparisons are not meant to be all encompassing or exhaustive; politicians can be professionals in the field of

education (valuing science and engineering over "other" disciplines), and professors can be professionals within the field of economics. The important characteristic to recognize is that each field under consideration does have professionals who (consciously or unconsciously) dictate, control, and advance the rules of the game played out in the field. For the field of emotional health, I focus on emotional states, as defined by mental health professionals, to describe how the rules within the field manifest.

The states within this field are described by indicators such as self-esteem and depression. The evaluation of the indicators describes the norms of the field. For instance, health institutions such as the National Institute of Mental Health, Mayo Clinic, and the Mental Health Association, offer advice and treatment options for depression; I have yet to find treatment options for self-esteem, unless we are speaking of low self-esteem. Although not explicitly stated: high self-esteem is valued, depressive symptoms are devalued. Depression requires "treatment", high self-esteem does not. Mental health professionals dictate the scales of measurement and diagnoses requirements for such classifications with the field of emotional health. Thus, a social actor is constrained by the rules, structured into a social location within the field relative to his or her emotional capital, which has been influenced by multiple fields in which race, gender, sexuality and body image perceptions have structured the habitus.

The Field of Beauty

Beauty has not previously been identified as a specific field within Bourdieu's work on fields and habitus. However, similar to emotional health, beauty is a concept that has its own (hetero-normative) rules and norms. Such norms are portrayed in idealized media images depicting "ultra-thin, remarkably perfect female model[s]" (Englen-Maddox 2005:

2) and muscular males which create a "culture of muscularity" (Agliata and Tantleff-Dunn 2004: 8). Evaluation and devaluation of "body perfect ideals" takes place within our personal interactions and our interaction with media outlets (Englen-Maddox 2005: 2). Therefore, parameters for evaluation have been set by a dominant class of actors, models, and media corporations. As with the field of emotional health, evaluation and devaluation of beauty results in subordination through domination; thus, I advance the field of beauty.

The social location that an individual occupies within this field is based upon individual perception and identification with evaluation statements, which is the process where our interpretations and actions, or habitus, regarding beauty are formed. If we consider closely the field of beauty, we should expect that relative distances between social actors in this field also represent differences in the value of capital one possesses. But more importantly, the development of habitus in the field of beauty is affected by interaction within and between the fields, and by reflexive dispositions established through education, social standing, and other social influencers such as media and the state. Social actors navigate the field of beauty based upon the habitus constructed within and through the fields and power relations of race, gender, and sexuality. It is within the field of beauty that reflexivity contributes to the habitus, which structures the social location of an actor within the field of emotional health.

Zembryas (2007) states "the body becomes an active source in the unfolding of social relations and is permeated everywhere by the historical" (Zembrylas 2007:448). This is evident in that schemes of perception have been shaped by the historical context of race, gender, and sexuality. When we consider the multi-dimensional aspect of fields, we would expect that the relative positions of actors in the field of beauty are analogous to the relative positions in other fields, such as those dealing with education, income,

sexuality, race, and depression. However, we must guard against placing one position above another and recognize that these positions are influenced by the significance placed upon them by social institutions. The interrelated nature of fields would suggest that schemes of perception vary depending on the field one is operating in. While we may discover that men are impacted in a different manner than women, we may also observe this impact is mediated by different levels of body image perception within the field of beauty.

Hypotheses

Research on body image perceptions and depression has traditionally focused on difference among groups in society. Specifically, Yuan's (2010) analysis of emotional well-being and body image perceptions in adolescents found significant differences across race and gender categories, yet did not provide a sound theoretical framework to consider how these outcomes develop. Bourdieu's framework of social space, fields, and habitus will assist in explaining processes of interaction between the fields of emotional health and beauty. The goal of the current study is to determine if body image perception is a mechanism through which race, gender, and sexuality systems of inequality affect depressive symptoms over time. Two central questions are addressed.

First, is there a significant relationship between race, gender, sexuality and depressive symptoms? The literature indicates that women, on average, experience higher levels of depression than men (Levitt 1983; Lewinsohn et al. 1988; Mirowsky and Ross 1989; Nolen-Hoeksema 1990, 2001), African-Americans have higher levels of psychological distress than Whites (Levitt 1983; Mirowsky and Ross 1980), and lesbians and bisexuals are more likely to score higher on depression scales than straights (Case et al. 2004). Based on

the previous literature, I expect race, gender, and sexuality to be significantly related to depressive symptoms, and will be best explained through their intersection, versus separate relationships between gender and depression, or race and depression, or sexuality and depression. Recall that race, class, gender, and sexuality operate as systems of inequality which "operate simultaneously […] [and] must be examined together (Weber 2010: v). By analyzing race, gender, and sexuality as interconnected and structuring systems in society, we can examine how social location within these systems, and thus habitus based on this location, structures positions within the field of emotional health. Recall that habitus is characterized by an individual's "scheme of perception" relevant to his or her participation in a field (Bourdieu, 1989:14). How a group perceives the race, gender, and sexuality structures in which they operate informs habits that reflect the position they occupy within the social world, specifically their position within the field of emotional health. We can examine "groups", such as African-American women, since each field is comprised of social actors who share similar positions within social structures, such that the closer an individual is to another in a field, the more common "properties" they share.

Second, do these relationships vary by body image perceptions? Research has indicated that women report greater body dissatisfaction than men (Streigel-Moore and Franko 2002; Vartanian 2009), White women are less satisfied with their bodies than their Hispanic, African American and Native American counterparts (Jackson 2002), and that gay/bisexual men reported significantly higher levels of depression and image fixation than lesbian/bisexual women (Wrench and Knapp 2008). I hypothesize that relationships between race, gender, sexuality, and depression do vary by body image perception. Specifically, social location within race, gender, and sexuality structures affects an actor's social location within the field of emotional health through interaction with the field of

beauty. Social space is "a structure of objective relations" which determines perceptions and interpretations by social actors (Bourdieu 1984: 244). These objective relations are characterized by distances within the fields of social space. Therefore we can hypothesize that body image perception is related to depressive symptoms in ways that are patterned by race, gender, and sexuality. Based on the literature, I have the following expectations:

1) Depressive symptoms are more likely to be affected by body image perception for women than men;

2) Depressive symptoms are more likely to be affected by body image perceptions for non-Hispanic Whites when compared to non-Hispanic African Americans, Latinos, Native Americans, and Asian Americans;

3) Depressive symptoms are more likely to be affected by body image perception for straights when compared to gays/lesbians and bisexuals.

Chapter 3: Data & Method

The National Longitudinal Study of Adolescent Health

The current study utilizes public-use respondent data from the National Longitudinal Study of Adolescent Health; referred to as 'Add Health' (Harris and Udry 2010). The data are comprised of a nationally-representative sample of U.S. school-attending adolescents interviewed at two separate time intervals, first between 2001 and 2002 (Wave III) and later during 2007 and 2008 (Wave IV). Initially, 26,666 U.S. high schools were sorted based on region, location, racial percentages, and school size, curriculum, grade span, and type (Chantala 2006). A cluster sample of 80 high schools and 52 feeder middle schools were selected for Add Health with a probability proportional to school size, resulting in a total of 132 schools used as the primary sampling unit (Chantala 2006). Feeder middle schools were classified as schools which contained a 7^{th} or 8^{th} grade that sent their students to one of the 80 cluster schools. All adolescents attending these schools were eligible for selection, though some groups were targeted for oversampling. These consisted of ethnic groups, blacks from well-educated families, disabled students, and genetic sampling to enable sibling tracking. Students attending one of the 132 participating feeder and cluster schools filled out an In-School Questionnaire; a sample of students from school rosters and those filling out the In-School Questionnaire were then selected to participate in the in-home data collection phase, consisting of four waves. Wave I in-home interviews were conducted between April and December 1995 yielding a sample of 18,924 respondents.

Wave II surveyed 13,570 Wave I respondents one year later from April to August 1996. The Wave II interview was similar to Wave I, with the addition of actual height and

weight measurements. Wave II did not re-interview Wave I disabled respondents or Wave I respondents who were in the 12th grade. The in-home Wave III sample consists of 15,179 original Wave I respondents who could be located and re-interviewed during the field-work period, August 2001 to April 2002. Wave I respondents who were incarcerated or in the Armed Forces overseas were not interviewed at Wave III (Harris and Udry, 2004). All respondents were ages 18 – 26 at the time of the Wave III interview. Wave IV interviewed 15,701 Wave I respondents from 2007 to 2008 when the respondents were 24 – 32 years old.

Public Use Dataset

The Wave I public-use dataset consists of one-half of the core sample, chosen at random, and one-half of the oversample of African-American adolescents with a parent who has a college degree, yielding a weighted Wave I sample of 6,504 respondents. From this public data set, Waves II, III and IV public-use datasets were derived. Respondent data from Waves III and IV will be evaluated in this study. Waves III and IV focus on adults, where Waves I and II focused only on adolescents. The Wave III public-use dataset contains 4,882 original Wave I respondents (25.8 percent of the original Wave I restricted-use dataset); Wave IV contains 5,114 original Wave I respondents.

In order to examine the effects of body image as an influencing factor over time, the respondents who participated in both Waves III and Wave IV are kept for the present study. The total number of matched case for both waves are 4,208. Cases with missing responses on the dependent variables and key independent variables such as race, gender, sexuality, education, income, and marital status were excluded from the study. Specifically, in order of dropped variables, 28 respondents were missing data for depressive

symptoms, 110 were missing data for body image perception, 31 respondents were missing data on sexual orientation, and one respondent was missing data for marital status. In addition to missing data on key independent variables, 18 respondents who identified their sexual orientation as "not attracted to women or men" were excluded from this study as these cases would not permit multiple regression analyses across gender and race. The final sample consists of 4,020 respondents: 1,742 males (44.33%) and 2,238 females (55.67%).

Measures

Dependent Variable

Depressive symptoms is a concept constructed from summing respondent answers to nine items derived from Radloff's (1977) 20-item Center for Epidemiologic Studies Depression (CES-D) scale. The original 20-item scale is composed of questions examining physical and psychological symptoms of depression that form four factors: Somatic-Retarded Activity, Depressed Affect, Positive Affect and Interpersonal Relations (Adkins et al. 2009; Radloff 1977). Add Health has used both a long (19-item) and short-form (9-item) CES-D scale across multiple waves. Chen, Hass, Gilmore and Kopak (2011) found a high correlation between the 19-item Wave I CES-D scale and the Wave III 9-item CES-D scale (.92). The 9-item CES-D scale was used for both Wave III and IV samples. The following nine questions were evaluated on a four point scale ranging from (0) 'never or rarely', to (3) 'most of the time or all the time':

- How often was each of the following things true in the past seven days:
    - You could not shake off the blues;
    - You were bothered by things that usually don't bother you;
    - You felt you were just as good as other people;

- You had trouble keeping your mind on what you were doing;
- You felt depressed;
- You felt that you were too tired to do things;
- You enjoyed life;
- You felt sad;
- You felt that people disliked you.

Questions were re-coded to reflect reverse coded items and averaged to produce a raw depressive symptom score ranging from zero to three (Cronbach's α Wave III = .805 ; Wave IV = .808).

Independent Variables

Body image perception is a concept constructed from responses to two questions examining weight image and perceived attractiveness. *Weight image* asked respondents how they thought about themselves in terms of weight. Responses were obtained through a five-item Likert scale ranging from "very underweight" to "very overweight"; the middle response indicated that the respondent felt "about the right weight." Scale items were re-coded into three dummy variables to reflect "underweight", "right weight", and "overweight." *Perceived attractiveness* asked respondents how attractive they thought they were on a four-point scale ranging from one to four; responses were re-coded to reflect a zero-to-three scale ranging from "not at all," "slightly," "moderately," and "very."

I have conceptualized *body image perception* as the combination of both *weight image* and *perceived attractiveness*. Although researchers have indicated that negative body image is mostly related to body weight (Foster and Matz, 2002), how an individual perceives his or her attractiveness should also be analyzed as a *body image perception* variable as this study focuses on the physical perception of self. If *weight image* was the only variable considered, research would not account for respondents who indicated they felt "overweight" but

also "very attractive." As we examine the effects of the field of beauty on the habitus, perception is critical for consideration. Therefore, a respondent's level of *body image perception* is the combination of both *weight image* and *perceived attractiveness. Weight image* and *perceived attractiveness* will be analyzed separately to determine how these two measures of body image perception affect *depressive symptom* outcomes individually.

Race

Race is constructed from responses to multiple questions regarding racial and ethnic identification. Add Health's detailed structure separates race variables into a series of questions to determine multi-race and single race categories. For instance, if a respondent marked more than one race category he or she was then required to answer a final question regarding which race they primarily identify with; this additional response was accounted for in the race variable recode. My intent in this study is to apply race responses as indicative of an individual's location within the "field" of race. Therefore, accounting for an individual's primary identification with a single race category represents perception of his or her social location within the field based upon established race categories. Only single race categories were used for the present study. The categories under study are: White non-Hispanic, African American non-Hispanic, Latino, Native American, and Asian American.

Sexuality

Sexual orientation was measured by asking respondents to choose a description that best fits how they think about themselves in terms of sexual orientation. how they feel about themselves sexually. Responses were: "100 percent heterosexual;" "mostly

heterosexual, but somewhat attracted to members of the same sex;" "bisexual;" "mostly homosexual, but somewhat attracted to members of the opposite sex;" "100 percent homosexual;" and "not attracted to males or females." Scale items were re-coded to reflect homosexual, bisexual, and heterosexual identities; "mostly homosexual, but somewhat attracted to members of the opposite sex" was combined with homosexual, and "mostly heterosexual, but somewhat attracted to members of the same sex" was combined with heterosexual. Responses represent and individual's social location within a "field" of sexuality. The reduction of five initial response categories was due to a small number of respondents falling into the "mostly" categories. Eighteen respondents indicated 'no attraction to either males or females' and were not included in the analyses due to small sample size and inability to perform regression models across gender and race associations.

Control Variables

The present study controls for age, marital status, body mass index, income and education. Previously addressed in the literature review, these variables have shown to affect depressive symptoms. My intent is to control for effects of these variables to examine how body image perception influences the relationship between depressive symptoms, race, gender, and sexuality. *Age* is measured in years and ranges from 18 to 27 at Wave III, and 24 to 34 at Wave IV. Add Health researchers calculated age in years by subtracting month and year of birth from date of interview. The age variable was squared to allow for possible non-linear effects of age on depression. Socio-economic status is a combination of personal income and education level. Income was measured in dollars by asking respondents their total annual income before taxes. Eight hundred and sixteen

respondents were missing income data for Wave III, while 168 did not report income levels in Wave IV. Reported income levels were re-coded to reflect the log of income in order to standardize the distribution for use in linear regression analyses. Multiple imputation was performed on log income scores for 816 cases in Wave III and 168 cases in Wave IV. Log income levels were used to correct for positively skewed distributions of income in the sample. Body mass index was created by multiplying weight in pounds by 703, and dividing the product by the respondent's height in inches. Six respondents were missing either weight or height data for Wave III. Multiple imputation was performed on 6 cases in Wave III. *Education* was measured by asking respondents their level of completed degree and years of education. A recoding scheme was employed to code education by level of degree attainment, while compensating for 'some college' by factoring for years of education.

Analysis

I utilized STATA 11/SE for analysis as recommended by Add Health researchers (Chantala 2006; Chantala and Tabor 2010). STATA software allows incorporation of survey design variables to compensate for clustering, weights, and sampling units. Only restricted-use data contains the required strata (REGION) variable; therefore, this study will employ a design-based analysis using only grand sample weights (GSWGT4_3) and primary sampling unit (CLUSTER2). Chantala and Tabor (2010) indicate that using only grand sample weights in a model-based analysis will result in incorrect estimation of variances, standard errors, and confidence intervals. Specifically, not incorporating the strata variable will result in reduced variance but will only minimally impact standard errors (Chantala 2006). The findings of the present study account for these limitations.

I conducted multiple regression analyses using STATA's *svy: regress* command to correct for sampling design as recommended by Add Health researchers (Chantala and Tabor 2010). Due to multiple imputation analyses used to correct for income and body mass index non-response, the command syntax for all analyses was *mi: estimate svy: regress*. This allowed for the simultaneous inclusion of survey design characteristics and imputed variables. Models were constructed to first evaluate the relationship between respondents' locations in the fields of race, gender and sexuality and Time 2 (T2)*depressive* symptoms, then to evaluate the influence of Time 1(T1) *body image perception* on this relationship. T1 and T2 represent Wave III and Wave IV respectively.

Multivariate results in Model 1 depict relationships of race, gender and sexuality locations to T2 *depressive symptoms* without control variables. Model 2 examines association between race, gender, and sexuality structures and T2 *depressive symptoms* while controlling for T1 depressive symptoms, body mass index, income, age, marital status, education and income. Model 3 regresses T2 *depressive symptoms* on race, gender, sexuality structures and T1 *body image perception* variables – *weight image* and *perceived attractiveness* – to evaluate the influence of *body image perceptions* on the relationship between *depressive symptoms* and race, gender, sexuality structures over time. Model 4 examines the effects of Model 3 when T1 controls are included.

Additional models were constructed to examine relationships between race, then gender, then sexuality, and depression as separate structures. These models progress in a similar manner to Model 1 through 4. Further analyses examine Model 4 by subpopulations of race, gender, and sexuality to determine how each location is affected separately by body image perceptions. Structures are examined first as gender, then race, then sexuality, then combined to reflect gender/race.

Analysis Limitations

Use of Add Health public use data presents some limitations to analyzing difference among intersecting models of gender, race, and sexuality. Specifically, small sample sizes observed in the intersection of gender, race, and sexuality prevented multiple regression analyses across all groups simultaneously. Table 4 indicates sample size characteristics of the 30 gender, race, and sexuality categories used in this study. Due to the small population of respondents who identify themselves as bisexual or homosexual, in relation to the overall sample size, comparison across all 30 groups was not feasible in this study.

In addition to small sample sizes across race, gender, and sexuality, Add Health public use data does not include a stratification variable to analyze sample subpopulations by region. Lack of region variables inhibits this study's ability to examine differences in depression and body image perception by region. It is possible that body image perceptions are shaped differently by region due to region-specific group characteristics and media marketing. These regional differences could shape the manner in which body image perception mediates the relationship between race, gender, sexuality and depression.

The use of single race, gender, and sexuality categories as indicators of an individual's position within a "field" may not capture enough difference between the categories. For instance, the question on gender only allows for two responses: female and male. This does not allow for respondents who may identify as transgender or reject who may reject social classifications of gender. These nuances could impact an individual's perception of their location relative to others (habitus) within the "field" of gender. The same limitations can be applied to race and sexuality classifications. The control variables applied in this study could each be classified as a position with a "field". Since my intent is

to describe relationships between depressive symptoms and body image perceptions across race, gender, and sexuality locations, an analysis of field positions by age, education, income, and marital status would require a significantly larger sample size to permit regression analyses of these complex subpopulations. The final limitation of this study is the use of personal income for respondents. Women, especially those who are married, may not have their own personal income and rely on family income provided by their spouse.

Chapter 4: Results

Descriptive Statistics

Table 1 provides descriptive statistics of the variables under study. Mean depressive symptoms at Wave IV is 5.124 (SD = 4.041); this indicates than on average, there is a low level of depressive symptoms across the sample. Mean perceived attractiveness at Wave III is 2.039 (SD = .715), which corresponds to a "moderately attractive" average score. Mean age at Wave III is 21.756 (SD = 1.829); mean age squared at Wave III is 820.07 (SD = 109.28). Mean income for Wave III is $13,038.43 (SD = $13,830.60). The median education level at Wave III is 'GED/HS Diploma' (72%). Only 12 percent of the sample had completed an undergraduate education or higher during Wave III. Mean body mass index for Wave III is 28.11 (SD=25.86). Prior to imputation, Wave III mean was 28.11 with a standard deviation of 19.01.

Table 2 provides descriptive statistics regarding the gender and race responses of the study participants. Sixty-three percent of the sample reported their race as White non-Hispanic, 22.41% African American non-Hispanic, 8.93% Latino, 2.31% Native American, and 3.26% Asian American. Sexual orientation responses reflect homosexual (1.99%), bisexual (1.54%), and heterosexual (96.47%) identities.

T-tests were performed to determine if women and men mean *depressive symptoms* and *body image perceptions* differ significantly and are depicted in Table 3. Results indicate that women on average report higher levels of *depressive symptoms* than men, consistent with previous research (Levitt, 1983; Lewinsohn et al. 1988; Mirowsky and Ross 1989; Nolen-Hoeksema 1990, 2001). Men report a slightly higher level of *perceived attractiveness* at T1 when compared to women, though this difference is not significant. ANOVA was performed to

determine if mean *depressive symptoms* and *body image perceptions* differ significantly by race and sexuality. Post-hoc tests indicate that African Americans report higher levels of *depressive symptoms* at T2 than all race categories used for this study, which is consistent with previous research (Levitt 1983; Mirowsky and Ross 1980). Additionally, results indicate that African American non-Hispanics report a higher *perceived attractiveness* than all categories. For sexual orientation, results indicate that bisexuals on average report higher levels of depressive symptoms than heterosexuals and homosexuals, which is consistent with Case et al.'s (2004) findings that bisexuals are more likely to score high on depression scales than their straight counterparts. Case et al. (2004) also suggest lesbian women score higher on depression scales than straight women, but my analyses do not indicate a significant relationship between gay/lesbian identity and depression. In summary, Table 3 indicates that gender, race, and sexuality are significant predictors of both *depressive symptoms* and *body image perceptions*, such that social location within social structures of inequality is related to social locations within the fields of emotional health and beauty.

Table 4 provides correlations among the key variables used in this study. T1 perceived attractiveness has a weak negative correlation with T2 depressive symptoms. As a respondent's perceived attractiveness at T1 decreases, depressive symptoms at T2 increase. Having an "overweight" image at T1 has a weak positive correlation with T2 depressive symptoms; "right weight" has a weak negative correlation; "underweight" is not statistically significant. Essentially, these results suggest that having an "overweight" body image at T1 is correlated with a higher depressive symptom score at T2; also, having a "right weight" body image at T1 is correlated with lower depressive symptom scores at T2. These findings are inconsistent with previous research suggesting no significant relationship between depression and perceived attractiveness (Noles et al. 1985). Mirowsky and Ross (1989)

found no significant relationship between depression and actual weight while controlling for income, education, marriage, and employment; my findings suggest not only that body mass index at T1 is correlated to *depressive symptoms* at T2, but an individual's perception of her or his weight (weight image) is also significantly correlated to T2 *depressive symptoms*. Table 4 also indicates that T1 income, marital status, and body mass index are significantly correlated to depressive symptoms at T2. These findings are consistent with previous research on income and marital status (Levitt 1983, Lewinsohn et al. 1988; Mirowsky and Ross 1989). Although not included in Table 4, pairwise correlations indicated a statistically significant negative correlation between T1 education and T2 *depressive symptoms*.

Multivariate Results

Social Structures and Depression

Table 5 illustrates results of multiple regression that tested relationships between race, gender, sexuality and depressive symptoms; Model 1 regresses T2 depressive symptoms on only race, gender and sexuality; Model 2 adds T1 control variables[1] to Model 1; Model 3 regresses T2 depressive symptoms on race, gender, sexuality, and body image perception; Model 4 adds T1 control variables to Model 3. The intent of this progression is to explain how race, gender, and sexuality are related to depressive symptoms with/without control variables, and with/without body image perception variables.

Model 1 regressed *depressive symptoms* by gender, race, and sexuality, finding that individuals' social locations within these social structures are significantly related to their levels of depressive symptoms. Specifically, this model suggests that females on average

[1] T1 control variables are Wave II education, income, marital status, body mass index, age, and depressive symptoms.

report a depressive symptom score .861 higher than males; African Americans report a depressive symptom score .998 higher than White American non-Hispanics; and respondents who identify as bi-sexual report a depressive symptom score 3.73 higher than straights and approximately 3.3 higher than gays. This is consistent with prior research on relationships between depression and gender (Levitt 1983; Lewinsohn et al. 1988; Mirowsky and Ross 1989; Nolen-Hoeksema 1990, 2001), between depression and race (Levitt 1983, Mirowsky and Ross 1980), and between depression and sexuality (Case et al. 2004).

Model 2 regressed depressive symptoms by race, gender, and sexuality structures and included control variables to determine if relationships between race, gender, sexuality, and depression change. Although this model indicates a decrease in the influence of race, gender, and sexuality on depression, these variables remain significant predictors of depressive symptoms. Race, gender, and sexuality remain significantly related to depressive symptoms; however, when control variables are included, the relationship between gender and depressive symptoms decreases on average by .357 when comparing females to males. Additionally, the relationship between race and depressive symptoms decreases by .315 for African Americans, and the relationship between sexuality and depressive symptoms decreased by 1.083 for bisexuals. The relationship between race and depressive symptoms changed direction for Latinos and Native Americans; however, these results are not statistically significant. Overall, the relationships between race, gender, and sexuality and depression decrease when T1 controls are included.

Model 3 added body image perception variables to Model 1 (weight image and perceived attractiveness) to examine its influence on relationships between gender, race,

sexuality structures and depressive symptoms over time. In comparison to Model 1, depressive symptom scores for African Americans increase in comparison to Whites when body image perception is included in the model. Additionally, the strength of the relationship between gender, sexuality, and depressive symptoms decreases when body image perception is included. Prior research suggests White women are less satisfied than African American women with their bodies (Jackson 2002), and Model 3 suggests that body image perception may have a greater mediating effect on African Americans' levels of depression than Whites'. As we examine body image perception we find that perceived attractiveness is negatively related to depressive symptoms. Specifically, a 1 unit increase in perceived attractiveness results in a .607 reduction in depressive symptom scores. Additionally, using "right weight" as a reference category, "overweight" and "underweight" variables are positively associated with depressive symptoms. These findings are consistent with prior research which identifies significant relationship between body image perceptions and depression (Noles et al. 1985; Yuan 2010). Overall, Model 3 suggests that body image perception *does* influence the relationship between race, gender, sexuality and depressive symptoms over time when control variables are not included in the analysis.

Model 4 expands analyses conducted in Model 3 to examine these relationships while including control variables. Model 4 indicates several changes in relationships which must be addressed. First, and most importantly, Model 4 indicates there in no significant relationship between weight image and depressive symptoms over time. Specifically, the overall relationship between weight image and depressive symptoms over time loses significance once T1 depressive symptoms are controlled for. This supports prior research suggesting no direct relationship between actual weight and depression

(Mirowsky and Ross 1989; Ross 1994). Second, the relationship between perceived attractiveness and depressive symptoms over time decreases, but remains significant. To determine how body image perceptions influence the relationship between race, gender, sexuality and depressive symptoms over time, Models 2 and 4 must be compared.

The only structural difference between Model 2 and Model 4 is the inclusion of body image perception variables; this allows an in-depth analysis of how body image perception influences the overall relationship between race, gender, sexuality, and depressive symptoms over time. The most significant difference between these models is the relationship between race and depressive symptoms. The inclusion of body image perception in the models with full T1 controls reveals a more pronounced decrease in depressive symptoms on average for African Americans, suggesting that body image perception is an important mediator in African Americans' depressive symptoms over time.

Body Image Perception as a Mechanism

This study seeks to expand the literature that indicates significant relationships between race, gender, sexuality, and depression by analyzing respondent data from a longitudinal dataset to examine how these relationships change over time. Additionally, I ask if body image perceptions have an effect on depression and if these effects vary for individuals differentially located by race, gender, and sexuality. Specifically, is body image perception a mechanism through which race, gender, and sexuality structures affects depressive symptoms over time? Tables 6 through 8 address this question to explain how body image perception influences the relationship between race, gender, sexuality, and depression.

Table 6 examines Model 4 of Table 5 by race. This allows for an analysis that examines how the relationship between body image perceptions and depressive symptoms changes by subpopulation. Recall that Table 5, Model 4, indicated that T1 perceived attractiveness had a significant negative relationship with depressive symptoms over time; additionally, Model 4 indicated that T1 weight image was not significantly related to depressive symptoms over time. However, Table 6 indicates that weight image is significantly related to depressive symptoms over time for both Whites and African Americans. Specifically, having an "overweight" image is negatively related to depression for African Americans. This suggests that having an overweight image results in lower depressive symptom scores over time for African Americans. This supports previous research which suggests that African American may have a "unique view of ideal weight and body size compared to white mainstream culture" (Celio et al. 2002:235). In support of this statement is the finding that having an "overweight" or "underweight" image was positively related to depressive symptoms over time for Whites. These findings do not support my hypothesis that the relationship between race and depressive symptoms will be influenced greater by body image perceptions for Whites when compared to African Americans, Latinos, Native Americans, and Asian Americans.

Table 6 indicates significant negative relationships between perceived attractiveness and depressive symptoms over time for Whites, Native Americans, and Asian Americans. Additionally, weight image has a significant relationship with depressive symptoms over time for only Whites and African Americans. Table 6 also indicates that gender is significantly related to depressive symptoms over time for only Whites and Latinos. These findings amend previous research claims of the relationship between gender and depression (Levitt 1983, Lewinsohn et al. 1988; Mirowsky and Ross 1989;

Nolen-Hoeksema 1990, 2001) to state that women on average do report higher levels of depression than men, *but* this relationship is only significant for Whites and Latinos. Additionally, bisexuals report significantly higher levels of depression when compared to gays and straights, but is only significant for Whites, African Americans, and Latinos. Interestingly, Asian American bisexuals are negatively related to depressive symptoms, suggesting they report significantly lower levels of depressive symptoms when compared to straight Asian Americans. Overall, Model 4 analyses by race indicate that body image perception influences the relationship between gender, sexuality, and depressive symptoms over time in ways that are patterned by race, such that body image perception acts as a mechanism through which race affects depressive symptoms over time.

Table 7 examines Model 4 of Table 5 by gender. Results in Table 7 suggest that body image perception, specifically perceived attractiveness, is negatively associated with gender. Specifically, lower levels of perceived attractiveness result in higher self-reported depressive symptoms for both men and women. Additionally, results in Table 7 indicate that the negative association between gender and depression is greater for women over time when compared to males. Table 7 also indicates that the relationship between sexuality and depression is only significant for women when compared to men. Specifically for women, a bisexual or lesbian identity has a significant positive relationship with depressive symptoms. Analyses by race in Table 6 indicated that the relationship between sexuality and depression was significant for Whites, African Americans and Latinos. As we compare Table 6 results to those in Table 7, this suggests that the relationship between sexuality and depression for Whites, African Americans, and Latinos is significant for women and not for men; however, small sample sizes prevent regression models by gender/sexuality to confirm. Overall, Model 4 analyses by gender suggest that

body image perception influences the relationship between race, sexuality, and depressive symptoms over time in ways that are patterned by gender, such that body image perception acts as a mechanism through which gender affects depressive symptoms over time.

Table 8 examines Model 4 of Table 5 by sexuality. Most importantly, results indicate that body image perceptions influence depressive symptoms over time differently by sexuality. Perceived attractiveness is has a significant negative relationship with depression over time for straights; an "overweight" image is positively related to depressive symptoms over time for both bisexuals and gays/lesbians. The relationship between gender and depressive symptoms is only significant for straights and bisexuals; however, results in Tables 6 and 7 suggest that this specific result may only be significant in African American and White women when compared to African American and White men. If we examine only bisexuals, we find significant relationships with depressive symptoms for Native Americans when Whites are the reference category. Overall, Model 4 analyses by sexuality suggest that body image perception influences the relationship between gender, race, and depressive symptoms over time in ways that are patterned by sexuality, such that body image perception acts as a mechanism through which sexuality affects depressive symptoms over time.

The analyses above indicate that body image perceptions mediate the relationship between gender, race, sexuality, and depression over time and support the overall hypothesis of this study: the effect of body image perceptions on depression vary by race, gender, and sexuality. Specifically, perceived attractiveness has a greater negative effect on women when compared to men; on Asian Americans/Pacific Islanders and Native Americans when compared to Whites, African Americans, and Latinos; on straights when

compared to gays/lesbians and bisexuals. Finding also suggest that variance by sexuality for women is only significant for White American straight women (when compared to White American bisexual/lesbian women and all White American males), and African American straight/lesbian women (when compared to all women and men). Additionally, Native American bisexual women report significantly lower depressive symptom scores when compared to all race/gender/sexuality intersections.

Additional analyses in Model 4 reveal that T1 income, age, and body mass index were not significantly related to T2 depressive symptom outcomes. This is consistent with Yuan's (2010) study adolescents which suggested that perceptual measures of body image are more related to psychological well-being than objective measures such as body mass index. T1 education is significantly related to depressive symptoms over time. Not completing high school or obtaining a GED was positively associated with depressive symptoms, while attainment of a Bachelor's degree or higher was negatively associated with depressive symptoms when attainment of a diploma or GED was used as the reference category. Specifically, as formal education level increased, depressive symptom scores decreased over time regardless of race, gender, or sexual orientation. These findings were consistent with prior research on the relationship between education levels and depression (Levitt 1983; Mirowsky and Ross 1989, 1992), but were contrary to findings from the 2009 National Survey on Drug Use and Health (SAMHSA 2010).

Table 1: Study Variables

Variable	Measurement	Level	Values	Mean/ Percent	S.D.
Depressive Symptoms (T2)	Sum of 9-item CES-D scale responses-Wave IV	Interval	0-27	5.124	4.041
Depressive Symptoms (T1)	Sum of 9-item CES-D scale responses-Wave III	Interval	0-25	4.427	4.02
Perceived Attractiveness	Self-reported level of attractiveness when compared to others at Wave III	Interval	0=Not attractive at all 1=Slightly attractive 2=Moderately attractive 3=Very attractive	2.039	.715
Weight Image	Self-reported weight image at Wave III	Nominal	Right Weight Underweight Overweight	47.24% 11.34% 41.42%	--- --- ---
Age	Age in years	Interval	18-27	21.756	1.829
Gender	What is your gender?	Ordinal	0=male 1=female	44.33% 55.67%	.498
Body Mass Index	(Weight/Height^2) * 703	Interval	0.05 – 210	28.107	25.869
Marital Status	Married at Wave III	Nominal	0=No 1=Yes	82.44% 17.56%	---
Personal Income[2]	Income before taxes at Wave III	Interval	$0 - $230,000	$13,038.43	$13,830.60
Education	Completed level of education at Wave III	Ordinal	1= No Diploma/GED 2= Diploma/GED 3=Some College 4=Bachelor's Degree 5=Master's Degree or Higher	6.65% 55.50% 25.74% 11.49% 0.62%	---
Sexual Orientation	Self-reported sexual orientation	Nominal	1= Heterosexual 2= Bisexual 3= Homosexual	96.47% 1.54% 1.99%	---
Race	Self-reported race	Nominal	1= White non-Hispanic 2= African American non- Hispanic 3= Latino 4= Native American 5= Asian & Pacific Islander	63.08% 22.41% 8.93% 2.31% 3.26%	---

[2] Log of personal income was used for the analysis.

Table 2: Sample Race and Gender Characteristics

N = 4,020	White		African American		Latino		Native American		Asian American Pacific Islander		*Total*	
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*
Women	1,394	34.68	536	13.33	194	4.83	49	1.22	65	1.62	2,238	55.67
Men	1,142	28.40	365	9.08	165	4.10	44	1.09	66	1.64	1,782	44.33
	2,536	**63.08**	**901**	**22.41**	**359**	**8.93**	**93**	**2.31**	**131**	**3.26**	**4,020**	**100**

Source: National Longitudinal Study of Adolescent Health (Wave III and Wave IV Data Sets)

Table 3: Means and Correlations by Gender, Race, and Sexuality

	Depression (T2)	*Attractiveness (T1)*
	Mean	Mean
Female	5.572***	2.015
Male	4.650***	2.064
White	4.922***	1.961***
African American	5.931***	2.417***
Latino	5.187	2.093
Native American	5.573	2.003
Asian American	5.411	1.854**
Heterosexual Identity	5.055***	2.043
Bisexual Identity	8.994***	1.910
Homosexual Identity	5.545	1.938

Source: National Longitudinal Study of Adolescent Health

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4: Correlation Matrix of Study Variables

N = 4020	Depression (T2)	Attractiveness (T1)	Overweight (T1)	Underweight (T1)	Rightweight (T1)	BMI (T1)	Income (T1)	Marital Status (T1)
Depression (T2)	1.000							
Attractiveness (T1)	-.099***	1.000						
Overweight (T1)	.075***	-.130***	1.000					
Underweight (T1)	.009	.017	-.301***	1.000				
Rightweight (T1)	-.080***	.163***	-.800***	-.339***	1.000			
BMI (T1)	.036*	-.067***	.283***	-.133***	-.200***	1.000		
Income (T1)	-.060***	.017	.004	.000	-.004	-.016	1.000	
Marital Status (T1)	.034*	-.093***	.111***	-.034*	-.088***	.090***	.090***	1.000

Source: National Longitudinal Study of Adolescent Health (Wave III and Wave IV Data Sets)

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests)

Table 5: Model progression of T2 depressive symptoms regressed on gender, race, sexuality and T1 body image perceptions

N = 4020	Model 1		Model 2		Model 3		Model 4	
	b	*se*	*b*	*se*	*B*	*se*	*b*	*se*
Gender (Female = 1)	.861***	(.157)	.504***	(.143)	.822***	(.159)	.503***	(.147)
Race								
White	---	---	---	---	---	---	---	---
African American	.998***	(.225)	.685***	(.187)	1.273***	(.226)	.845***	(.190)
Latino	.228	(.232)	-.192	(.202)	.337	(.221)	-.148	(.198)
Native American	.671	(.505)	-.561	(.427)	.651	(.485)	-.539	(.406)
Asian American	.536	(.323)	.323	(.310)	.441	(.325)	.281	(.309)
Sexual Orientation								
Heterosexual	---	---	---		---		---	---
Bisexual	3.731***	(.756)	2.648***	(.758)	3.620***	(.723)	2.604***	(.742)
Homosexual	.438	(.444)	.495	(.379)	.305	(.457)	.419	(.390)
Attractiveness (T1)					-.607***	(.113)	-.339***	(.103)
Right Weight (T1)					---	---	---	---
Over Weight (T1)					.343*	(.172)	.134	(.151)
Under Weight (T1)					.503*	(.216)	.165	(.187)
F	14.97		44.43		13.88		40.00	
Constant	4.412***	(.112)	1.592**	(.599)	5.432***	(.283)	2.326***	(.658)

Source: National Longitudinal Study of Adolescent Health (Wave III and Wave IV Data Sets)

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests)

Note: Control variables included in only Models 2 and 4

Table 6: Model 4 by Race

N = 4020	White		African American		Latino		Native American		Asian American/ Pacific Islander	
	b	*se*	*b*	*se*	*b*	*se*	*b*	*se*	*b*	*se*
Gender (Female = 1)	.494**	(.170)	.469	(.361)	.814*	(.394)	.135	(.673)	.264	(.147)
Sexual Orientation										
Heterosexual	---	---	---		---	---	---	---	---	---
Bisexual	2.746**	(.978)	2.318*	(1.09)	2.240***	(.552)	.243	(2.27)	-2.133†	(.742)
Homosexual	.865†	(.481)	-1.229†	(.707)	.517	(1.35)	-.054	(1.86)	-.627	(.810)
Attractiveness (T1)	-.252*	(.120)	-.099	(.216)	-.267	(.324)	-1.614**	(.498)	-1.668***	(.494)
Right Weight (T1)	---	---	---	---	---	---	---	---	---	---
Over Weight (T1)	.299†	(.179)	-.817*	(.329)	.299	(.374)	-.104	(.772)	-.242	(.627)
Under Weight (T1)	.401†	(.216)	-.776	(.492)	.107	(.527)	.826	(.978)	-.254	(.861)
N		**2536**		**901**		**359**		**93**		**130**
F	31.28		16.01		17.87		12.17		.	
Constant	2.140**	(.775)	3.214***	(1.67)	2.092	(2.13)	1.852	(2.80)	10.36***	(3.11)

Source: National Longitudinal Study of Adolescent Health (Wave III and Wave IV Data Sets)

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests)

Table 7: Model 4 by Gender

N = 4020	Table 5 Model 4		Model 4 Males N = 1782		Model 4 Females N = 2238	
	b	*se*	*b*	*se*	*b*	*se*
Gender (Female = 1)	.503***	(.147)				
Race						
White	---	---	---	---	---	---
African American	.845***	(.190)	.958**	(.336)	.765***	(.213)
Latino	-.148	(.198)	-.300	(.248)	-.061	(.339)
Native American/Other	-.539	(.406)	-.490	(.541)	-.392	(.624)
Asian American	.281	(.309)	.157	(.327)	.293	(.560)
Sexual Orientation						
Heterosexual	---	---	---	---	---	---
Bisexual	2.604***	(.742)	.824	(1.11)	3.215***	(.806)
Homosexual	.419	(.390)	-.406	(.570)	1.067**	(.534)
Attractiveness (T1)	-.339***	(.103)	-.273**	(.105)	-.408*	(.162)
Right Weight (T1)	---	---	---	---	---	---
Over Weight (T1)	.134	(.151)	.314	(.206)	.001	(.206)
Under Weight (T1)	.165	(.187)	.062	(.222)	.409	(.353)
F	40.00		25.16		23.39	
Constant	2.326***	(.658)	2.424*	(.940)	2.655**	(.973)

Source: National Longitudinal Study of Adolescent Health (Wave III and Wave IV Data Sets)

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests)

Table 8: Model 4 by Sexuality

N = 4020	Table 5 Model 4		Straight (N = 3878)		Bisexual (N = 62)		Gay/Lesbian (N = 80)	
	b	*se*	*b*	*se*	*b*	*se*	*b*	*se*
Gender (Female = 1)	.503***	(.147)	.455**	(.148)	2.762*	(1.19)	1.100	(.952)
Race								
White	---	---	---	---	---	---	---	---
African American	.845***	(.190)	.913***	(.197)	2.378	(1.57)	-2.412 ***	(.969)
Latino	-.148	(.198)	-.122	(.204)	.020	(1.57)	.165	(1.45)
Native American/Other	-.539	(.406)	-.496	(.425)	-2.834*	(1.37)	-.394	(1.69)
Asian American	.281	(.309)	.329	(.306)	-2.150	(1.47)	.914	(.910)
Attractiveness (T1)	-.339***	(.103)	-.351***	(.104)	-.128	(1.05)	.486	(.600)
Right Weight (T1)	---	---	---	---	---	---	---	---
Over Weight (T1)	.134	(.151)	.076	(.157)	4.488***	(1.30)	1.814†	(1.07)
Under Weight (T1)	.165	(.187)	.168	(.196)	.240	(2.30)	1.544	(1.06)
F	40.00		40.42		14.60		10.24	
Constant	2.326***	(.658)	2.500***	(.671)	6.356	(7.96)	-4.9322	(3.36)

Source: National Longitudinal Study of Adolescent Health (Wave III and Wave IV Data Sets)

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests)

Chapter 5: Discussion/Conclusions

Despite the abundance of research available on the topic of depression and its relationship with body image perception, there is a general lack of sociological theory-based longitudinal research focusing on the relationship of body image perceptions and depression over time. This study examined if body image perception is a mechanism through which race, gender, and sexuality systems of inequality affect depressive symptoms over time. Two central questions were addressed.

First, this study sought to expand the literature that indicates significant relationships between race, gender, sexuality, and depression by analyzing respondent data from a longitudinal dataset to examine how these relationships change over time. More specifically, the present study asked if social location within race, gender, sexuality structures influences social location within the field of emotional health. Multivariate results confirm the prior literature and indicate that there is a significant relationship between race and depressive symptoms, and gender and depressive symptoms, and sexuality and depressive symptoms. However, an individual's position within a race structure is influenced by his/her position in the gender structure, and in the sexuality structure. Therefore, we must consider race, and gender, and sexuality at the same time and across intersecting lines; this supports Weber's (2010) argument that issues concerning systems oppression are "simultaneously expressed" (90). While important to analyze gender and depression, it is also important to analyze gender and depression by race, or sexuality and depression by gender and so on. Previous research suggests that women report higher rates of depression than men (Levitt 1983; Lewinsohn et al 1988; Mirowsky and Ross 1989; Nolen-Hoeksema 1990, 2001). However, these prior studies do not tell us whether there is a variation in the

level of depression among women by other dimensions, such as race. Instead, the implication of their studies is that it is acceptable to assume women are a homogenous group. Findings reported earlier from Table 5 also depict this assumption. However, as the results indicate in Table 6, the ways in which gender influences depressive symptoms differ by race. Therefore, race, gender, and sexuality, while each individually related to depressive symptoms, must be examined together.

Establishing relationships between race, gender, sexuality structures and a position within the field of emotional health represents objective relations in social space, or distance, between individuals and groups of individuals. There is simultaneously both a social distance between individuals and groups within race, gender, and sexuality structures, and a distance between groups within the field of emotional health. Distance within the field of emotional health is characterized by differences in depressive symptom scores; differences in social structures of inequality are characterized by location within race, and gender, and sexuality. However, we have only addressed one facet of Bourdieu's structuralist constructivism paradigm, the objective experience.

The second question posed by this study asked if the effect of body image perceptions on depression vary by race, gender, and sexuality. This question aimed at exploring subjective experience of the objective world. While subjective relations, such as perception of inequality, within race, gender, and sexuality structures are operating within social space, these perceptions were not available for analysis. To test how subjective and objective relations combine to produce social outcomes such as depression, I examined how an individual's position within the field of beauty, namely body image perception, influences the objective distance within the field of emotional health, namely depressive symptoms. Overall, my findings suggest that body image perceptions influence the

relationship between race, gender, sexuality, and depressive symptoms over time. I found that while negative perception of attractiveness results in higher depression scores over time, its effect is simultaneously significant and insignificant within race, gender, and sexuality structures. For instance, although we find that perceived attractiveness is significantly related to depressive symptoms over time for both men and women, we cannot state that all men, or all women, are influenced by perceived attractiveness. Specifically, the relationship between gender, race, and depressive symptoms does not appear to be influenced by perceived attractiveness for African American men/women. Regression analyses found similar results for Latino men/women. However, the relationship between race, gender, and depressive symptoms is influenced by weight image over time. For African American women, there is a negative relationship between depressive symptoms and an "overweight" image. Specifically, reporting an "overweight" image results in lower depressive symptom levels for African American women. These findings indicate that body image perception, which is a combination of both perceived attractiveness and weight image, influences the relationship between race, gender, sexuality and depressive symptoms over time for African American women. Within Bourdieu's framework, this study indicates that for some individuals, position within the field of beauty acts as a mechanism through which race, gender, and sexuality affect his/her position within the field of emotional health. Why?

Of the literature that studies differences among race groups, an emphasis on culture provides insight into the development of body image differences in society. Abrams, Allen and Gray (1993) suggest that there is greater acceptance of a wide range of body weights in African American culture when compared to White Americans. For instance, members of the dominant White American culture tend to accept thin body

images as attractive, whereas African American culture view attractiveness differently (Weber et al. 2004). Research has also stated that African Americans have a "unique view" of body image characteristics when compared to those of White Americans (Celio et al. 2002:235). However, Celio et al. (2002) do not consider the negative connotation associated with "uniqueness", suggesting African Americans are the "other" when compared to norms of Whites. Weber et al. (2004) frame their descriptions in a more neutral manner, suggesting that African Americans view larger women as attractive, intelligent, and wanted by African American straight men. This could explain why an "overweight" image is negatively related to depressive symptoms among African American women over time. In other words, having an "overweight" image corresponds to lower depressive symptoms for African American women.

The current literature in the field of body image indicates cultural differences among African Americans and Whites, but does not examine relations between an increasingly diverse population consisting of Asian Americans, Latinos, and a multitude of ethnicities. Additionally, the literature does not indicate that African Americans have lower or higher reported body image dissatisfaction than Whites, only that definitions of attractiveness and beauty are socially constructed within the context of each culture, and may not be so easily translated across classifications of race. The analyses above in Table 6 indicate that when negative body image concerns are present (in the form of low perceived attractiveness), there is a significant relationship with higher depressive symptom scores for both men and women. While the data suggest that the negative association is greater for women, we cannot assume that the difference in association is significant. Nor from the data can we assume that women, or men, are a homogenous group; the same logic applies to race and sexuality.

What can be taken away from all of this is an understanding that categorizations within race, gender, and sexuality structures are not homogenous, nor can they be examined independently. Or, as Ken (2010) advances, race is a gender "thing" and a class "thing," gender is a race "thing;" to assume gender is independent of race, or sexuality, or class reduces complex concepts to simple (and misguided) explanations. Fields are simultaneous and reinforcing within social space. Race operates alongside gender, and alongside sexuality. Arguably a field itself, race, gender, and sexuality interact with the multiple fields of social space to produce social outcomes; as the present study has indicated through interaction with the field of beauty and the field of emotional health. The interaction of the fields does not occur in a singular fashion. For instance, race, gender, and sexuality do not interact with the field of emotional health to produce depressive symptoms. It is through interaction with multiple fields that our habitus is constructed, shaped, or changed to influence our social location within social space.

Our interactions within the social world are very important; they affect not only how we perceive our world, but how we react to it. We play out our daily lives in ways that are not abstract, but really mean something to us, whether positive or negative. Our social environment saturates our bodies with images, interactions, and perceptions to the extent that we are physically and emotionally impacted. This impact thus plays a significant role in structuring our future perceptions and action. Take African American women as an example. My findings suggest that having an "overweight" image results in lower depressive symptom scores over time. If we consider Celio et al.'s (2002) suggestion that African Americans have formulated a different idea of attractiveness in response to white culture, we can see how schemes of perception may develop in response to interaction within the field of beauty and race. For instance, African Americans,

understanding that their social location in the field of race is structured by power relations that marginalize them, may reject the value system within the field of beauty. Therefore, a habitus is constructed from the perception of inequality. This inequality may be in the form of access to capital. Since the field of beauty in dominant white culture "values" attributes of thin white women, African American women may feel that their access to beauty capital is limited, and thus reject the rules of the field. The rejection of the field is best characterized as a strategy, or a mode of response within social space as a result of habitus. As the present study had suggested, our position within race, gender, and sexuality systems structures our habitus, which is further influenced by other fields, such as beauty, to structure our position within another field, such as emotional health. This process is continuous and dynamic.

The multi-dimensional aspect of fields suggests that the relative positions of actors in a given field are analogous to relative positions in other fields. This study has presented that relative positions within race, gender, and sexuality structures shape how an individual interacts with the field of beauty, and therefore the individual assumes a relative position in the field of beauty based upon the evaluation and devaluation of image characteristics in American society. An individual's perception of their own image, relative to others, in turn affects their social position within the field of emotional health; as we have seen, this positioning can result in higher or lower levels of depressive symptoms depending on the interaction of race, gender, sexuality, and body image perception.

Limitations and Future Research

There are several limitations of this research which require attention. First, utilizing Add Health public use data limited the sample size used. Therefore, small

subpopulation sizes inhibited regression by race/sexuality, gender/sexuality, and race/gender/sexuality. Additionally, my analysis was unable to use education as a central theoretical variable to examine class alongside race, gender, and sexuality as a system of oppression. Future research should expand the analyses performed in the present study using the Add Health restricted-use dataset to achieve greater subpopulation sizes. This should allow for greater analyses by race, gender, sexuality, and class subpopulations simultaneously.

Second, Wave III questionnaires were administered in 2000, with Wave IV administered in 2007, ensuring that my findings would be slightly dated. Significant events such as the housing crisis may provide insight into the development of depressive symptoms which my analysis did not consider. Additionally, my analysis did not consider changes in income, relationship patterns (such as dating, multiple marriages, or divorces) and significant life events (such as child birth or family/friend death). For instance, changes in relationship status over time, depending on the nature of the relationship, could cause strain on individuals that is not captured by a binary married/not married classification. Life events such as child birth and family loss can equally shape an individual's emotional health. The intent of the present study was not to consider every possible aspect of an individual's life that may or may not lead to depressive symptoms; however, since the fields of social space interact with each other simultaneously, these limitations cannot be ignored. Future research should expand variable analyses to account for significant life events. This will strengthen theoretical explanations of field interactions and habitus development within social space.

Third, my analysis examined longitudinal effects over a seven year period, which may be too long when considering body image perceptions and depressive symptoms

over time. Considering that the mean age at Wave III was approximately 21 years, the importance of an individual's perception of their own body can change drastically in seven years. Future research should focus on a shorter longitudinal frame or increase the number of waves available for longitudinal analysis. By analyzing data at multiple points over time, analyses can determine to what extent body image mediates relationships between race, gender, sexuality, and depression through the life course. For instance, tracking body image ideals and depressive symptom development from adolescence to old age can account for shifting patterns in media, educational attainment, and significant life events which simultaneously interact within the fields.

Finally, my decision to use quantitative data to answer my research question limited my ability to capture the rich detail of personal interviews concerning the effects of body image perception; this was a deliberate decision to allow for discussion of effects across races, genders, and sexualities and to achieve representativeness in my findings. Future research should consider mixed methods approach, which includes survey questionnaires supplemented by personal interviews. This could provide a deeper understanding of an individual's position within a given field and how their perception of that position influences decisions and further perceptions of their social world.

Conclusion

My results suggest that an individual's social location within social structures of inequality is related to his or her social location within the fields of emotional health and beauty. Specifically, I found that (1) perceived attractiveness has a greater negative effect on depressive symptoms for women, (2) body image perceptions have a greater mediating effect on African American's levels of depressive symptoms than Whites, and (3) having

an "overweight" image results in a decrease in depressive symptoms over time for African American women. As discussed earlier, our perceptions of our social environment manifests within individuals in different ways. This study has shown that the way these manifestations occur, in the form depressive symptoms, is patterned by race, gender, and sexuality. Understanding who is more likely to be affected by negative and positive perceptions of the social world is important to enable discussion on positive emotional health. More importantly, determining who has better access to positive emotional health can lead researchers to determine what resources in our social world are more and least accessible to achieve this end.

Appendix A: Supplemental Results

Tables 9 through 11 illustrate relationships between race, gender, sexuality (as separate structures) and depressive symptoms. Table 5 depicts model progression by race and is structured similar to Models 1 through 4 in Table 4. Specifically, the first model examines the relationship between race and depression; the second examines race, depressive symptoms, and T1 controls; the third model examines the relationship between race, depressive symptoms, and body image perceptions over time; the forth examines the relationship between race, depressive symptoms, body image perceptions, and T1 controls over time. Tables 10 and 11 follow this pattern and examine gender and sexuality respectively. Overall, Tables 9 through 11 indicate that race, gender, and sexuality as separate structures are significantly related to depressive symptoms.

Table 9 models suggest that African Americans report a higher depressive symptom than White American non-Hispanics when gender and sexuality are not included in analyses. When compared to Model 5, Model 7 indicates an increase in depressive symptom scores of African American non-Hispanics when body image perception is included. Additionally, Model 7 indicates a stronger negative relationship between T1 perceived attractiveness and T2 depressive symptoms when only race is analyzed, compared to the overall gender, race, sexuality analysis in Model 3. Additionally, when only race is analyzed, the relationship between T1 weight image (over weight) and T2 depressive symptoms increases by .164. Results from model 8 analyses indicate an increase in the relationship between race and depressive symptoms when T1 body image perception is included.

Table 10 depicts model progression by gender suggests that women report a depressive symptom score higher than men when race and sexuality are not included in the analyses. In comparison to Model 10, results from model 12 analyses indicate no change in the relationship between gender and depressive symptoms when T1 body image perception is included. Overall, models 9-12 suggest that gender is strongly associated with depressive symptoms. Additionally, when race and sexuality are included in the model, the relationship between gender and depression decreases, and the negative relationship between perceived attractiveness and depressive symptoms increases over time.

Table 11 depicts model progression by sexuality. Overall these models suggest that suggests that sexuality is significantly related to depressive symptoms over time. Additionally, as comparisons between Models 14 and 16 illustrate, body image perception influences the relationship between sexuality and depressive symptoms over time, such that the relationship decreases on average by .046. Overall, Tables 9 through 11 indicate that although race, gender, and sexuality are related to depressive symptoms individually, you can only analyze one with the inclusion of the others. For instance, when comparing Model 8 to Model 4, we find that the inclusion of gender and sexuality results in a decrease in the relationship between race and depressive symptoms; when Model 12 is compared to Model 4, we find that the inclusion of race and sexuality to the model results in a decrease in the relationship between gender and depressive symptoms; when Model 16 is compared to Model 4, we find that the inclusion of race and gender results in a decrease in the relationship between sexuality and depressive symptoms. Therefore race must be analyzed alongside gender and sexuality to understand how these structures interact with depressive symptoms.

Table 9: Race Model

N = 4020	Model 5		Model 6		Model 7		Model 8	
	b	*se*	*b*	*se*	*b*	*se*	*b*	*se*
White	---	---	---	---	---	---	---	---
Black	1.009***	(.226)	.691***	(.187)	1.291***	(.228)	.854***	(.187)
Latino	.265	(.234)	-.206	(.202)	.312	(.226)	-.171	(.205)
Native American	.651	(.502)	-.610	(.427)	.629	(.481)	-.586	(.413)
Asian American	.489	(.489)	.286	(.310)	.411	(.321)	.252	(.308)
Attractiveness (T1)					-.621***	(.116)	-.338**	(.107)
Right Weight (T1)					---	---	---	---
Over Weight (T1)					.517**	(.178)	.231	(.151)
Under Weight (T1)					.339	(.211)	.068	(.180)
F	6.39		52.01		10.51		45.26	
Constant	4.922***	(.087)	2.161***	(.596)	5.896***	(.272)	2.905***	(.655)

Source: National Longitudinal Study of Adolescent Health (Wave III and Wave IV Data Sets)

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests)

Table 10: Gender Model

N = 4020	Model 9		Model 10		Model 11		Model 12	
	b	*se*	*b*	*se*	*b*	*se*	*b*	*se*
Gender	.923***	(.160)	.554***	(.143)	.885***	(.159)	.554***	(.147)
Attractiveness (T1)					-.475***	(.108)	-.255*	(.100)
Right Weight (T1)					---	---	---	---
Over Weight (T1)					.412*	(.172)	.152	(.151)
Under Weight (T1)					.570**	(.216)	.198	(.187)
F	33.42		62.38		12.62		52.32	
Constant	4.650***	(.114)	1.661**	(.616)	5.403***	(.270)	2.191***	(.667)

Source: National Longitudinal Study of Adolescent Health (Wave III and Wave IV Data Sets)

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests)

Table 11: Sexuality Model

N = 4020	Model 13		Model 14		Model 15		Model 16	
	b	*se*	*b*	*se*	*b*	*se*	*b*	*se*
Heterosexual	---	---	---		---		---	---
Bisexual	3.940***	(.768)	2.757***	(.765)	3.806***	(.723)	2.711***	(.749)
Homosexual	.490	(.450)	.493	(.381)	.381	(.457)	.435	(.389)
Attractiveness (T1)					-.464***	(.113)	-.237*	(.103)
Right Weight (T1)					---	---	---	---
Over Weight (T1)					.527**	(.179)	.210	(.154)
Under Weight (T1)					.359**	(.212)	.063	(.186)
F	13.17		58.34		10.41		48.69	
Constant	5.055***	(.082)	1.942***	(.589)	5.750***	(.255)	2.462***	(.648)

Source: National Longitudinal Study of Adolescent Health (Wave III and Wave IV Data Sets)

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests)

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