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The Stress of Adolescence: The Impact of Self-Perceived Body Development on Adult Health

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THE STRESS OF ADOLESCENCE: THE IMPACT OF SELF-PERCEIVED BODY DEVELOPMENT ON ADULT HEALTH

By

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Extant research indicates that early and mid adolescence are times of notable pubertal changes, which are accompanied by rapid physical, cognitive, and social transitions. For young women, these changes are particularly stressful. The female body changes extensively and is subject to societal ideals of beauty, thinness, and objectification. The current dissertation offers a novel bio-psycho-social perspective to the study of adolescent self-perceived development. Utilizing data from Waves, I III, and IV of Add Health, I constructed a composite index of self-perceived body development during adolescence and examined its impact on four health outcomes. After running several regression models, and testing for robustness, results from this study indicate that there is a statistically significant relationship between self-perceived body development and adult health among women, but not among men. Girls with greater scores on the self-perceived body development index are more likely to report lower levels of self-rated health, are more likely to have been diagnosed with depression in their lifetime, have higher scores on the CES-D depression scale, a greater probability of seeking counseling, and have higher BMIs during emerging adulthood. Specifically, a one-unit increase in self-perceived body development is associated with a 1.89% decrease in the probability of reporting excellent health. Further, belonging to the top quartile of the self-perceived body development index is associated with a 13.80% increase in the

probability of reporting poor health. Belonging to the top 5th percentile of self-perceived body development index distribution is associated with a 31.17% decrease in the probability of reporting excellent health. A one-unit increase in the self-perceived body development index is associated with a 1.82% increase in the probability of lifetime depression diagnosis. Also, girls belonging to the top 5th percentile of the self-perceived body development index distribution have a 57.63% greater likelihood of lifetime depression diagnosis. Belonging to the extremes top and bottom quarters of the distribution of the self-perceived body development index distribution are more likely than their counterparts in the interquartile range to have higher scores on the CES-D depression scale. Further, girls belonging to the top and bottom 5th percentiles of the self-perceived body development index distribution are more likely than their counterparts in the interquartile range to have higher scores on the CES-D depression scale. The previous effect, however, is by and large more consistent and robust for girls belonging to the bottom of the distribution. In addition, a one-unit increase in the self-perceived body development index is associated with a 2.10% increase in the probability of having sought psychological or emotional counseling in the past 12 months at Wave IV. Additionally, girls belonging to the top quartile of the self-perceived body development index distribution are 20.08% more likely to have sought psychological or emotional counseling in the past 12 months, at Wave IV. Finally**,** A one-unit increase in the self-perceived body development index is associated with a 2.36% higher BMI at Wave IV.

These results are an important contribution, as they indicate that self-perceived bodily changes during adolescence may represent risk factors for women's adult health.

Dedication

First, I would like to dedicate this dissertation to my late grandfather, Marc Beulaygue. Thank you for transmitting to me your thirst for knowledge, your love for science, and your inquisitive nature. This project would not have been possible without you. I wish you could have been among us to read it; I hope you are proud of me.

Second, I would also like to dedicate this dissertation to the late Dr. Leonard Pearlin, whom I had the chance to meet at the Annual American Sociological Association meeting in 2013. Thank you for allowing the academic community to understand the social determinants of stress.

Finally, I would like to dedicate this project to all adolescent girls and women around the world who are afflicted by body image issues, eating disorders, or other emotional ailments. All too often, young girls' suffering is silenced and their stress experiences are misunderstood. I hope that one day, sooner than later, my research helps them.

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First and foremost, thank God for His precious help and guidance all along these five years of the Ph.D. process.

I am infinitely thankful to my parents for their assistance and their kindness. Thank you for always being there for me, no matter what.

To Dr. Michael French, there are no words to express how thankful I am for your academic and personal mentorship over the years. You have taught me invaluable work and life skills. I hope to keep working on projects with you in the future.

To my friends, thank you for the support and for being my "home away from home".

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Chapter One: Introduction

I would there be no age between ten and three-and-twenty, or that youth would sleep out the rest; for there is nothing in the between but getting wenches with child, wronging the anciently, stealing, fighting.

- William Shakespeare, The Winter's Tale (1898)

What are the best years of one's life? William Shakespeare -who was perhaps one of the cleverest social commentators- noted in 1623 that adolescence appears to be a difficult phase. Four hundred years later after his remarks, research indicates that middle age is the golden age of life, certainly not adolescence nor old age (Mirowsky and Ross 1999). Indeed, adolescents undergo a myriad of physical, affective, and emotional changes, in comparison with other points of the life-course. Importantly, early and mid adolescence are times of notable pubertal changes, which are accompanied by rapid cognitive and social transitions (Forman 1993). Previous research has pointed out that said changes have a profound effect on health. In particular, this time of accelerated development is often associated with elevated amounts of stress (Hauser and Bowlds 1990; Seiffge-Krenke 1995), and that such stressors may impact future adaptation. Indeed, stressful events during adolescence may give rise to emotional, mental, and social problems, and thus have a deleterious effect on overall development (Seiffge-Krenke 2000). Understanding how adolescents experience stress is helpful to understand development during adolescence, how development is shaped within the wider social fabric, and the processes that lead to positive or negative health outcomes. While some adolescents' ability to react and cope with stress may serve a protective function, other adolescent's coping mechanisms can represent risk factors and negatively impact their physical and mental health. Such coping mechanisms include, for example, social avoidance, cigarette smoking, drinking alcohol, substance use, eating disorders, and bullying (Seiffge-Krenke 2000). Consequently, these adolescent risky behaviors and coping mechanisms have a deleterious impact on health that extends well beyond adolescence into adulthood.

Despite the benefits of understanding the effects of pubertal development on stress and later adaptation, little research has honed in on the early identification and prevention of risk factors involving self-perceptions of body development. While the extant studies are adequate and rigorous in explaining causal mechanisms between adolescent development and adult health, very few explore potential predictive factors beyond objective measures of puberty (e.g. age at menarche). Importantly, there is a dearth of quantitative literature investigating the role of self-perceived body development on adult health and mental health. In addition, such studies are limited in their scope because most are cross-sectional and thus are unable to examine longitudinal causal mechanisms across time spans (Klump et al. 2007).

As such, the current dissertation builds on the existing research and aims to bridge the gaps in the literature by offering a novel bio-psycho-social perspective on the study of adolescent health and stress. The purpose of the present dissertation is threefold: 1) It aims to study the impact of self-perceived changes in physical development during puberty on adult physical and mental health, and health services utilization, and 2) It aims to compare and contrast gender differences in the exposure and vulnerability of boys and girls to stress during body development. In other words, the current dissertation aims to elucidate the question: does the way adolescents view their changing bodies have an impact on their adult health? To my knowledge, this is the first three-wave longitudinal study examining how adolescent self-perceived body development predicts adult health.

This dissertation is organized in eight chapters, each focusing on a specific aspect of the research:

Chapter Two: In this chapter, I begin by reviewing the origins of the study of stress and society- the General Adaptive Syndrome (Selye 1956). Then, I examine its contemporary theoretical formulation, as developed by Pearlin et al. (1981), which examines the impact of major life events and daily hassles in the development of stress. Further, I explore the literature on mediating resources and coping styles, as they pertain to the study of social stress.

Chapter Three: In this chapter, I examine the consequences of pubertal development on stress during adolescence. Indeed, physiological changes and accelerated development during the teenage years may have consequences for later adaptation. Indeed, as much as 15-20% of adolescents develop cognitive and emotional changes after puberty occurs (Offord et al. 1987). In particular, I explore how psychosocial factors such as achieving expectations and body image are experienced as stressors during adolescence (Saxton et al. 2009; Mares et al. 2010; Swami et al. 2010). Subsequently, I review the role of substance use, and tobacco smoking as coping mechanisms during adolescence (Neumark-Stzainer and Hannan 2000) Finally, I examine the array of psychosocial resources available to adolescents, such as family, peers, and teachers and how they mediate the relationship between adolescent stress and health (Patterson and McCubbin 1987; Hauser and Bowlds 1990; Ebata and Moos 1994; Seiffge-Krenke 1995).

Chapter Four: In this chapter, I review the theoretical framework belonging to the self-objectification literature (Fredrickson and Roberts 1997) and how self-objectification is experienced as a stressor and is associated with mental health risks during adolescence, due to society's heavy emphasis on thinness and beauty.

Chapter Five: In this chapter, I review the life-course paradigm (Elder 1985; 2003). The life-course paradigm is a comprehensive interdisciplimary paradigm that helps to understand of how health inequalities accumulate over time. The life-course paradigm integrates the notions of time and place, agency, linked lives, timing, and sociohistorical context. This provides a better understanding of the causal mechanisms by which inequalities are produced and/ or reduced as individuals advance in life. In this research, I examine trajectories of physical and mental health over time as well as age-graded patterns of stress and health outcomes.

Chapter Six: In this chapter, I present the conceptual model for the current study. In addition, I present the specific aims and research hypotheses.

Chapter Seven: In this chapter, I outline the data and methods utilized for the present study. The data from this study come from the National Longitudinal Study of Adolescent Health (Add Health). I integrate three waves of data from the Add Health survey: Wave I, Wave III, and Wave IV. In addition, I utilize the genetic data released by Add Health, that I obtained after submitting a research proposal and completing the application process.

Chapter Eight: In this chapter, I describe the results of the present study pertaining to the core models and sensitivity analyses.

Chapter Nine: In this chapter I review the key results of the study, and examine potential explanations that may help to explain the relationship between adolescent body development, stress, and adult health outcomes. Also, I develop theoretical implications in the context of all the literature previously outlined. Finally, I also present strengths and limitations of my study and examine pertinent policy implications and avenues for future research.

Chapter 10: In this chapter, I recap the findings and conclude the present study.

Chapter Two: Stress

2.1. The origins of the stress paradigm: the stress of life

If one asks the average person to explain what stress is, one usually seems to know that her life is in some way under duress and pressure. It is often experienced as an unpleasant feeling that makes one uneasy and that one strives to reduce. It has been quite difficult, however, for scientists across disciplines to define stress precisely.

The theoretical and empirical study of stress originates with Hans Selye's "The Stress of Life" (1956), which provided a comprehensive review and scientific exploration of stress and its consequences. He defined stress as the "nonspecific response of the body to any demand" and outlined the General Adaptive Syndrome (GAS). Stress is a state manifested by a syndrome, a sum of changes in the body at one point in time, which cannot be reduced to one specific response, but to a combination of manifestations. Were it not for the physiological changes it engenders, we would not have a way to assess the impact of stress. The GAS represented a groundbreaking and innovative framework to study stress over time, as it introduced novel markers and indices to study stress as well as a causal pathway of stress. Selye advanced that stress develops in three stages: 1) the alarm reaction, 2) the stage of resistance, and 3) the stage of exhaustion.

2.1.1 What stress is not

Initially, physicians began paying attention to stress after realizing that individuals under pressure and demands showed excessive adrenal stimulation, shrinkage of lymphatic organs, gastrointestinal ulcers, and loss of body weight. Due to much confusion regarding the nature of stress in the mid twentieth century, Selye began his work by debunking several myths surrounding stress. Indeed, Selye asserted that stress is not merely synonymous with nervous tension, as was the common ideology of the time. Stress reactions also occur in other lower animals and plants, which do not have nervous systems as developed as those of humans. In addition, Selye claimed that stress is not simply anything that causes an alarm reaction. It is the stressor, the source of stress, not stress itself that causes the alarm reaction. Moreover, stress is not always the result of a damaging process. Selye made the case that a passionate kiss can engender stress, and not produce considerable damage to the body. In the same line of thought, Selye argued that stress is not necessarily something negative. He contended that the stress generated by exciting and creative work- such as the current dissertation- might be beneficial in the end. However, the stress of humiliation, infection, or failure may have deleterious consequences for both mental and physical health. Therefore, it is important to differentiate between two types of stress: 1) positive stress or eustress, and 2) negative stress or distress. Further, stress is not the same thing as a deviation from homeostasis, i.e. the steady state of harmony in the body. Having a cold is a deviation from homeostasis; however it is not the result of a stressor. Finally, Selye argued that stress cannot and should not be avoided. As such, stress is part of normal life and humans are always under some form of stress, as the title of his book suggests. Selye contended that stress may be moderated and prevented, but that the only way to avoid stress is by dying.

2.1.2 The General Adaptive Syndrome (GAS)

Selye differentiated stress from the General Adaptive Syndrome (GAS). Whereas stress is the result of nonspecific physiological manifestations and responses to stress at one time, the GAS represents the totality of the nonspecific changes happening in the body over time as the result of continued exposure to a stressor. The GAS consists of three stages: 1) the alarm reaction, 2) the stage of resistance, and 3) the stage of exhaustion. Stress is present at any moment of the GAS; however, its manifestations change over time. Selye contends that all humans through the first two stages of the GAS quite often. Indeed, the alarm and resistance stages are part of our development and such adaptation allows us to perform all the activities of daily life. Only the most severe types of stress, however, result in the third phase of the adaptation syndrome, the exhaustion phase.

2.1.3 The hypothalamic-pituitary-adrenal system (HPA) axis

Selye conducted experiments on rats to understand the basic mechanisms of stress relations and their interrelations with the endocrine system, the system of the endocrine glands and the hormones they secrete. Hormones are soluble chemicals that are secreted by glands and that travel throughout the body to deliver a message. Each hormone contains a code that only specific organs are able to read. For example, estrogen -the female sex hormone- affects the reproductive tract, the urinary tract, the heart and blood vessels, the bones, the breasts, the skin and hair, the mucous membranes, and the brain (University of Rochester Medical Center 2014). Selye and colleagues hypothesized a pathway through which the GAS operates after exposure to a stressor. Essentially, the GAS operates through the hypothalamus-pituitary-adrenal system pathway. Areas of the body under specific stress send out alarm signals to the hypothalamus and to the endocrine glands, in particular the pituitary and the adrenals. The hypothalamus is a very small yet extremely important coordinating region of the brain involved in the mediation of endocrine, autonomous, and behavioral systems. Importantly, the hypothalamus commands the secretion of eight hormones by the pituitary gland (University of

Wisconsin Neuroanatomy Coursebook 2014). The pituitary gland is a pea-sized gland situated below the hypothalamus and mainly controlled it. The pituitary gland -also known as the hypophisis- produces a large number of hormones, including the adrenocorticotropic hormone (ACTH), the beta-melanocyte-stimulating hormone, endorphins, enkephalins, follicle stimulating hormone, growth hormone, luteinizing hormones, oxytocin, prolactin, thyroid stimulating hormone, and vasopressin. The pituitary is often referred to as the master gland, as it controls the activity of most other endocrine glands in the body (Merck Manuals 2014). The adrenal glands are endocrine glands situated above the kidneys, whose cortex secretes several hormones including corticosteroids and mineralocorticoids. Some corticosteroids –such as cortisol and cortisone- are hormones that exert an anti-inflammatory response in the body. The medulla (inner part) of the adrenals secretes norepinephrine, which is a hormone involved in the regulation of heart rate, blood pressure, and sweating.

During the alarm reaction, following exposure to a stressor, the hypothalamus sends a message to the pituitary gland to activate the secretion of ACTH, which in turn activates a sharp increase in the release of all corticosteroids available in the adrenal cortex. During the resistance phase, the adrenal cortex continues releasing a steady number of corticosteroids. Finally, during the stage of exhaustion, the amount of corticosteroids released by the adrenal cortex falls dramatically. As was previously mentioned, corticosteroids exert an anti-inflammatory response in the body as a defense mechanism to the effect of the stressor on a specific body part. These hormones produce adaptive responses to address localized damage in the body. However, corticoids such as cortisol also increase appetite, total food intake, and available blood glucose, all of which can have several consequences for health and body weight (Tataranni et al. 1996).

2.1.4 Stress causes inflammation

The concept of inflammation has been known since the times of the Roman physician Aurelius Cornelius Celsus, who wrote over two thousand years ago that inflammation was a reaction characterized by redness, swelling, heat and pain. Upon exposure to a stressor, the adrenal cortex secretes corticosteroids because stress causes inflammation. Selye defined inflammation as a defensive local reaction to injury. During inflammation, the body increases its production of white blood cells and red blood cells to attack and entrap the irritant. Local inflammation to an irritant is often beneficial because the pathogens are engulfed and eliminated by a soaring number of white blood cells. For example, an infection of the skin by bacteria causes inflammation in the form of a boil. The pus -an accumulation of white blood cells- is the physical evidence that the white blood cells are defending the body against the bacteria and working towards its healing. Cortisol is immunosuppressive and anti-inflammatory and decreases the inflammatory response triggered by stress. Without cortisol, continued inflammation could lead to tissue damage. However, excessive secretion of cortisol over time may generate disease over time, as it increases allostatic load, i.e. the "wear and tear" of the body.

2.1.5 Stress diseases

Selye explains that nearly every organ in the body is involved in the general stress reaction. Selye outlines the process by which stress and inflammation affects the body: they affect the brain, the thyroid gland, the nervous system, the adrenal glands, the kidneys- which regulate blood pressure, the liver, and the cardiovascular system. Further, Selye argues that maladpatation to stress may be associated with a variety of nervous and mental diseases, sexual dysfunctions, digestive diseases, metabolic diseases, cancer, and aging.

With regard to mental ailments, Selye posits that the stress hormones –such as corticosteroids and progesterone- involved in the GAS can cause depression and lethargy. Similarly, the secretion of ACTH produces a short-term state of euphoria and wellbeing, followed by a state of depression and lethargy, which often leading to depression and suicidal thoughts in genetically predisposed individuals. With regard to sexual dysfunctions, Selye explains that the sexual glands shrink and become less active in proportion to the adrenal glands during a stressful event. In times when the body faces imminent danger, it prioritizes the response to stress over reproductive functions. Thus, the pituitary gland increases its production of ACTH and decreases its production of sexual hormones. As a consequence, many girls facing stressful conditions many experience a disappearance of their menstruation; lactating mothers may experience a decline in their milk production. In addition, Selye establishes a causal link between the Pre-Menstrual Syndrome (PMS) and stress. He notes that the water-retention, joint pain, appetite changes, and mood swings that most women experience monthly before menstruation are similar symptoms to those experienced during the GAS. Thus, women's bodies may mimic an alarm-reaction phase and experience more stress before menstruation. Men experience a decline in testosterone production, which affects both their libido and sperm cell formation. The digestive system is also affected by stress. This manifests in various ways, either through loss of appetite, vomiting, diarrhea, or constipation. In addition, the medical body long thought that gastric duodenal ulcers were more likely to happen in individuals exposed to stress. Although science currently mostly attributes these ulcers to infection by the H-pylori bacterium (helicobacter pylori), psychosocial distress plays a contributing role in the development of ulcers (Erceg et al. 2010). In the same fashion, stress is a worsening factor in the etiology of Irritable Bowel Syndrome (IBS) (Lackner et al. 2010). Further, stress may cause a wide array of metabolic diseases, such as obesity. Stress may cause obesity through a variety of pathways like derailed adaptive reactions, such as eating food for consolation. In addition, diabetes and hypoglycemia may also be associated with the body's response to stress. Selye argues that diabetes may not always be the consequence of an insufficient insulin production; it may be the consequence of an excessive secretion of stress hormones, which tend to raise the blood sugar concentration. Hyperthyroidism may also be a consequence of stress. Certain predisposed individuals may secrete more Thyroid Stimulating Hormone (TSH) than ACTH when exposed to a stressor, which can lead to the enlargement of the thyroid gland and to the onset of hyperthyroidism. With regard to cancer, Selye posits a tentative association between stress and cancer. He argues that many types of cancers develop at the site of chronic tissue injury and that the development of cancer in those areas is similar to the inflammation response experienced by the body during a stressful event. Nowadays, although the mechanisms remain unclear, research indicates that chronic exposure to stress may promote tumor growth

(Thacker et al. 2006). Finally, Selye contends that premature aging may be a result of constant exposure to stress. Indeed, he contends that physiological aging is not determined by the time that has passed since birth, but by the amount of stress -wear and tear- to which the body has been exposed during lifetime.

The current review has demonstrated that the health consequences of stress are multifold and of varying degrees. Therefore, it is not surprising that the consequences of short and long-term exposure to stress can have deleterious consequences on a multitude of physical and mental functions. As I shall explain later in greater detail, adolescents are exposed to a wide variety of stressors, whose health consequences extend into adulthood. Thus, studying the mental and physical consequences of adolescent stress is particularly relevant. While Selye's (1956) classic work on biological stress is a valuable starting point, it presents a couple of limitations (Wheaton 1999). First, it does not address the contextual and environmental conditions in which the stressor arises. Second, it does not address the social and non-biological potential consequences of stress. Medical sociologists have strived to address these two flaws in their study of social stress.

2.2 The sociological study of stress

Medical sociology's contribution to the study of stress has been enormous. Early research can be traced back to Engels's examination of the British working class after the industrial revolution (1842). Engels studied the living conditions of the working class in 19^{th} century England and found that the working class presented higher rates of illness than the bourgeoisie. Overall, workers enjoyed less free time and were less healthy than the bourgeoisie. Although the effects of this apparent class division on health were not further studied for a while, it set the ground for what we know now as the social gradient of SES and health. In the same line of thought, Durkheim (1897) examined the causes of suicide in French society and analyzed the strengths of people's social attachments in a post-industrial context. Importantly, Durkheim identified the process of anomie as an essential disruptor of normative order. He argued that norms for proper behavior could break down during periods of social change. Although Durkheim did not explicitly isolate anomie as a cause of mental health disorders, his research set the ground for subsequent sociological studies on health and illness. Later in the 20th century, Merton's (1938) rendition of anomie –also known as classical strain theory- would also pave the way toward a sociological understanding of stress. Merton's definition of anomie differed from that of Durkheim. He argued that anomie did not simply occur during periods of social change, but that it was an enduring and pervasive characteristic of modern societies. Importantly, Merton asserted that in the United States, people focused too much on the goal of economic success to achieve the *"American Dream"*, which led to everyone being in a state of economic competition. The social structure of the United States, however, prevents many from becoming economically successful. This creates a societal emphasis on material success but no emphasis on the use of legitimate means to achieve it. Thus, social strain arises when individuals are placed in situations when goals of success are not aligned with the necessary resources to achieve those goals.

Sociological theory and empirical research on social stress and the stress process have helped to understand the social and environmental conditions contributing to mental health problems. As such, medical sociologists examine how stress arises, its physiological and psychological mechanism, its epidemiology, its social correlates, and the resources available to navigate it (Turner et al. 1995; Aneshenhel 1992; Pearlin et al.

1981; Pearlin 1999). Overall, most sociological perspectives on stress and mental health support a social causation approach, indicating that one's position in the social stratification system and one's exposure to certain social forces cause stress and affect mental wellbeing. Pearlin's (1981;1999) theory of social stress contends that one must approach stress from a sociological perspective in order to make sense of it as a physiological and psychological disorder. Indeed, although genetic and biological forces can potentially drive some mental health problems, they are inseparable from social and economic circumstances. In the original stress process model, Pearlin et al. (1981) put forth a conceptualization of stress, stressors, and their effect on mental health. They identify four key social elements that mediate/ moderate the effects of stress on mental health: 1) social support, 2) coping, and 3) mastery, 4) self-esteem. Similar to Selye, Pearlin defines stressors as any type of condition that can upset the adaptive capacity of an individual. He distinguishes between two types of stressors: 1) eventful stressors and 2) chronic stessors. Eventful stressors surface abruptly and are often "unscheduled", such as a divorce, death of a loved one, or job loss. Chronic stressors are commonly rooted in the social fabric, in social structures, roles and relationships. They tend to persist over time. These stressors can further be broken down into three categories: 1) status strain and 2) role strain, 3) and contextual strain. Status strains directly arise from one's position in the social system, in particular from being faced with unequal distribution of resources, opportunities, life chances, power, and prestige. Individuals living in socially stratified systems are often confronted with material deprivation and relative deprivation, leading to personal devaluations and damages to self-esteem. Role strains represent stressors that emerge in the context of institutionalized social roles. As Merton (1957) posited, one may experience strained due to the adherence to one or a variety of social roles, be it within the family, at school, or in the occupational sector, often leads to interrole conflict, role overload (Aneshensel 1995), and role captivity (Pearlin 1975). Finally, contextual strains arise from one's immediate environment, such as the neighborhood and the community. Common contextual strains include violence, threats to safety, and the educational climate. Further, Pearlin underscores the proliferation of stressors, the notion that stressors do not occur in a vacuum and usually compound one another. Oftentimes, individuals experience a combination of eventful and chronic stressors. Moreover, serious stressors tend to engender additional stressors, a concept coined as status proliferation.

Importantly, Pearlin's treatise sheds light on the importance of resources. Resources are beliefs, actions, and interactions that people undertake in response to hardships and threats (Pearlin 1999). Resources have both moderating and mediating effects on stress. Accordingly, resources are threefold and are constituted by 1) coping, 2) social support, and 3) mastery. Coping is a set of behaviors that individuals engage in to avoid stressors or to minimize their effects. Social support consists of the assistance or emotional support that individuals receive from their social networks. Mastery represents a person's sense of control over the forces invading their lives. Despite their buffering and mediating effect, resources have their limits and some stressful situations cannot be ameliorated through the use of coping, social support, or mastery.

Drawing on Pearlin's seminal theory of the stress process (1981), Aneshenhel (1992) establishes causal pathways between the social structure and stress. Overall, she contends that the exclusion from full participation in society or a participation that does not lead to expected returns are likely to generate social stress. In studying how social organization shapes the experience and consequences of stressful life experiences, Aneshenhel (1992) posits that stress is both a mediating and an independent moderating variable. As a mediator, stress is one of the major pathways linking social positions and emotional wellbeing. Indeed, one's location in the social system is associated with one's likelihood of encountering stressors. These stressors, in turn, increase the probability of becoming emotionally distressed. As a moderator, stress adds on to life events and daily hassles and contributes to suboptimal emotional wellbeing. Further, Aneshensel adds that the distinction between chronic stress and major life events is flawed. As such, it is the duration of exposure to a stressor that matters the most, not the length of its consequence. With regard to the social correlates surrounding social stress, Aneshensel asserts that self-efficacy (or mastery, as Pearlin terms it) is negatively associated with social stratification and socioeconomic status. As such, mastery varies inversely with socioeconomic status. Also, macroeconomic shocks in the economy- such as job loss or unexpected financial events- may also engender social stress. Additionally, marital status appears to have protective effects against the hazards of social stress. Finally, Aneshensel provides a gendered analysis of stress. Overall, women seem to experience more social stress than men. Being employed, however, seems to have a beneficial effect on stress and its consequences.

In the same line of thought, Turner et al. (1995) present a review of the epidemiology of social stress and depression. In doing so, the authors argue that depression is not the result of differential vulnerability to depression but the result of differential exposure to risk factors. Thus, they provide a comparison of the epidemiological correlates of social stress with those of depression. Overall, the authors assert that differences in exposure to stress explain more of the epidemiological variance in mental health status than differential vulnerability to stress. Results indicate that stress distributions are closely aligned with those observed for depression across sex, age, marital status, and occupation. For instance, women report more depression and more social stress. Individuals with higher SES are less likely to be depressed and to experience social stress. Young people experience more social stress. The married are less exposed to stress than the non-married; the non-previously married are more exposed to stress than the previously married. These results support the differential exposure hypothesis, while challenging the differential vulnerability hypothesis.

Chapter Three: Adolescent Stress

3.1 Puberty, adolescence, and stress: theory and research

There is evidence that middle age seems to be the happiest phase of one's life, as opposed to adolescence or old age (Mirowsky and Ross 1999). The popular stereotypes often depict adolescents as messy, rude, and moody (Petersen et al. 1988). More so than any period in the life-course, adolescence has been characterized in the psychological and sociological literatures as a phase of struggles that are both interpersonal and intrapersonal in nature. During adolescence, individuals seek to achieve a sense of personal autonomy and identity that is separate from the family, while expanding peer social networks. Both the interpersonal and intrapersonal struggles encountered in adolescence are important sources of stress (Compas and Wagner 1988). Indeed, adolescence is a challenging, difficult, and demanding turning point of the life-course. It is a phase of rapid biological, emotional, sexual, and social adaptation, during which youths often experience decreased self-esteem and confront societal pressures. Thus, adolescents face elevated rates of stress, mental illness, and are likely to engage in risky behaviors, initiate criminal activity, and resort to dysfunctional coping mechanisms (Gore and Colten 1988). Such detrimental coping mechanisms include alcohol use, tobacco use, other substance use, eating disorders, self-injuries, and suicide. Because the effects of these coping mechanisms extend well into adulthood, it is essential for stress researchers to focus on adolescents as a study population.

Early research on adolescent stress was guided by the premise that hormonal changes and biological shifts were responsible for the changes in stress, behavior, and mental health experienced by adolescents. However, sociologist and psychologists soon began to realize that adolescent stress does not happen in a vacuum and cannot be extracted from the social and cultural milieu in which these developmental changes occur (Peterson et al. 1988). Thus, researchers have adopted the term “psychosocial stress” to characterize the stress experienced by adolescents. Adolescent stress researchers have honed in on two major research questions. The first research tradition focuses on establishing the direct influence of adolescent stress on mental health, i.e. on studying the impact of stress exposure on mental health. The second research tradition addresses the mediating and moderating mechanisms that influence resilience or vulnerability to stress, i.e. the coping mechanisms that “buffer” the effects of stress (Gore and Colten 1988). Mediating processes are variables that establish the link between life changes and indicators of health status and functioning. Moderator variables, however, attenuate the harmful health effects of stress in groups that are exposed to high degrees of stress. The following section of the current chapter will provide a review of the extent literature on the determinants of adolescent stress, the coping mechanisms used, and the health consequences of adolescent stress.

3.1.1 Determinants of adolescent stress

A large body of literature has examined the determinants of adolescent stress. Because adolescence is such a multifaceted developmental stage of the life-course, one cannot attribute a single cause to the existence of adolescent stress. The causes of adolescent stress are multifold and include biological, societal, cognitive, and relational adaptations.

They also encompass interpersonal and intrapersonal processes. Thus, Petersen's theoretical perspective (1980) contends that one must consider adolescent development as a bio-psycho-social process embedded in the social and institutional context in which adolescents develop.

Up until the 1970s, it was believed that biological shifts -in particular hormonal changes- were the primary causes of stress and emotional changes among adolescents. Hormone levels increase rapidly during the pubertal years and assist in the development of primary and secondary sexual characteristics. Linkages between hormonal levels and aggressive behaviors have been reported for both boys and girls (Olweus et al. 1980; 1981). Higher levels of testosterone were associated with greater impatience and irritability, which was linked to a greater likelihood of displaying aggressive-destructive behavior for both sexes. Additional research focusing on girls has illuminated the roles of Follicle Stimulating Hormone (FSH), Leutenizing Hormone (LH), estradiol, testosterone, and dehydroepiandosterone sulfate (DHEAS) on mental and behavioral health. Paikoff and Brook-Gunn (1990; 1991) studied the effect of FSH, LH, and estradiol, all of which influence breast growth and menstruation during puberty. The authors analyzed the effect of these female hormones on affective behavior among a sample of 72 pubertal girls at a two-year interval. The authors found that all endocrinological factors -except for DHEAS- were significantly associated with higher levels of self-reported depressive symptoms. These results held even after controlling for initial depressive symptoms. Higher levels of DHEAS, an adrenal androgen, were negatively associated with aggressive symptomatology. These findings were independent of pubertal status and age.

Subsequent research on hormonal development during puberty highlights the importance of the social environment in moderating the effects of hormonal changes on mental health during puberty. Indeed, certain social events are experienced differently as a function of pubertal development. Dornbusch et al. (1988) studied a sample of high school youths from various social backgrounds to identify the major life events that were associated with poor mental health, lower school grades, and a greater likelihood of engaging in deviant behaviors. The authors studied a sample of 10,041 students from six schools in California and Wisconsin. Three categories of stressful events emerged: 1) personal stressful events, 2) familial stressful events, and 3) school related stressful events. Overall, adolescents were more sensitive to personal events (such as a breakup with a romantic partner) than they were to familial events (such as parental divorce) or school events (such as being suspended). Research has indicated a positive relationship between early pubertal development and greater independence from the home, lower parental vigilance, and the establishment of same-sex peer relationships (Brooks-Gunn et al. 1986; Brooks-Gunn et al. 1988; Magnusson et al. 1985). Furthermore, the interaction between the social environment and timing of pubertal development impacts the use of coping mechanisms by adolescents intended to mitigate the effects of stress. Significantly, most of the research has honed in on adolescent girls, as they seem to be disproportionately affected by emotional and behavioral changes during puberty. Magnusson and colleagues (1985) examined why early maturing girls are more likely to partake in tobacco smoking and drinking sooner than later maturing girls. Peer effects emerged as a salient cause, as early maturing girls were more likely to have older friends who were already engaging in these harmful coping behaviors. Moreover, Blyth and colleagues (1985) reported that early maturing girls experience the transition from 5th

grade to 6th grade -from elementary to middle school- with more distress than on-time or later maturing girls, who are not in the middle of puberty as they are living this transition.

Significantly, Brooks-Gunn (1991) posits that puberty emerges as a social stimulus, modifying the image that adults and peers have of girls as their body develops, which in turn is a experienced as a stressor for the adolescent. These tenets are in accordance with the premises of objectification theory, which will be discussed in greater depth in Chapter 4.

3.2 Risky behaviors

3.2.1 Alcohol use as a coping mechanism

Evidence indicates that alcohol use among adolescents is a major public health concern (U.S. Department of Health and Human Services 2007). Indeed, alcohol is the most commonly used substance by youth in the United States, above tobacco and illicit drugs. Although drinking under the age of 21 is illegal in the United States, estimates report that youths under 21 consume 11% of all the alcohol drunk nationwide (Office of Juvenile Justice and Delinquency Prevention (2005). Results from the Monitoring the Future Survey (2011) revealed that 33% of 8th graders and 70% of 12th graders had tried alcohol, and that 13% of 8th graders and up to 40% of 12 graders had drank alcohol during the past month. Results from the National Survey on Drug Use and Health reveal that 25% of youths aged 12 to 20 were drinkers, and that up to 16% were binge drinkers. As such, numerous adolescent drinkers engage in binge drinking -the act of drinking 5 or more drinks on the same occasion on at least one day a month (NIAAA 2015). Notably, adolescents consume more drinks during drinking events than adults. Alcohol consumption among adolescents is associated with a wide variety of harmful health and social consequences. Drinking alcohol is a very risky behavior for adolescents and is the cause of more than 4,300 annual deaths amongst under age youths (CDC 2014). In 2010, there were approximately 189,000 emergency rooms visits by persons under age 21 for injuries and other conditions linked to alcohol (CDC 2014). Thus, adolescent drinking is a widespread public health problem that must be studied, monitored, and regulated.

3.2.2 Adolescent tobacco use

The Center for Disease Control and Prevention (CDC) estimates that 9 out of 10 smokers start using tobacco before the age of 18. In 2012, 6.7% of middle school students and 23.3% of high school students used tobacco products (CDC 2012). Although smoking rates have declined since 2000, tobacco smoking remains primarily a behavior that is initiated during adolescence. Specifically, the use of tobacco during adolescence is often a coping mechanism to help with cognitive and affective processes. As such, research indicates a robust relationship between youth smoking and negative affect, including depression, anxiety, and stress (U.S. Department of Health and Human Services 1994; U.S. Department of Health and Human Services 2012)

Additionally, adolescents often have positive expectations from smoking, and indicate the belief that tobacco exercises stress-relieving and weight loss properties (CDC 2013). Besides the emotional and mental health consequences of smoking, the physical health consequences of smoking cannot be overstated. Smoking harms nearly every organ of the body, reduces life expectancy, causes many diseases, and significantly reduces overall health. Each year, smoking kills 480,000 individuals, more than HIV, illegal drug use, alcohol use, motor vehicle injuries, and firearm-related incidents. Further, smoking causes about 90% of all lung cancers reported in the U.S. Notably, among women, mortality from lung cancer is higher than mortality from breast cancer (CDC 2014).

3.2.3 Suicide

Suicide represents a coping mechanism of last resort for adolescents and remains a major health problem that contributes young people's mortality. Among youth between the ages of 10 and 24, suicide is the third leading cause of death, resulting in nearly 4,600 lives lost every year. Significantly, an important proportion of adolescents has contemplated committing suicide. A nationwide survey of youths in grades 9–12 in public and private high schools revealed that 16% of students reported seriously wanting to take their own lives, 13% thought about creating a plan, and 8% have tried to take their own life in the 12 months prior to the survey. Further, every year, approximately 157,000 youngsters between the ages of 10 and 24 seek medical assistance at the Emergency Department (ED) for self-inflicted injuries. Because the prevalence rate of high-school aged adolescents who are considering or have considered committing suicide is so elevated, researchers must make it a priority to study the underlying stress, mental, and physical inadequacies amounting to such detrimental thoughts (CDC 2014).

Chapter Four: Objectification

Particularly relevant to the study of self-perceived changes in body development during adolescence are the tenets of objectification theory, which highlight how the process of objectifying female bodies can be a source of anxiety and mental health disorders, such as depression, eating disorders, and sexual dysfunction (Frederickson and Roberts 1997). During the 1990s, theorists from a variety of disciplines began to explore the multiple ways in which bodies convey social meaning, and how such meanings help to shape gendered experiences. For instance, Foucault's (1979) history of sexuality delineated how individuals have learned to use their bodies to experience pleasure. Scholars of embodiment in medical sociology, such as Turner (1992) and Nettleton (2000) have incorporated Foucault's ideas in their paradigms.

Similarly, the paradigm of objectification followed this line of thought and emerged as a salient social psychological framework to explain how bodies exist within social and cultural contexts. Bodies -and in particular, female bodies- are construed through sociocultural practices and discourses. As such, objectification theory seeks to place female bodies in a sociological context to highlight the life experiences and mental health risks of girls and women who encounter sexual objectification. Sexual objectification refers to the experience of being treated as a body, a collection of body parts, valued primarily for its use or consumption by others (Frederickson and Roberts 1997). Thus, objectification theory is relevant to the analysis of self-perceived changes in body-development during adolescence, because my composite indices are composed of several body parts that are often sexually objectified by males (breasts, curves, body hair, facial hair, etc.). In addition, the objectification framework highlights how changes in the mental health risks of women appear to coincide with life-course changes in the female body, such as the pivotal years of adolescence. Further, the objectification framework is valuable to the current dissertation for the following four reasons: 1) It provides a framework for understanding a set of psychological experiences that appear to be primarily female, 2) It articulates a life-course examination of women's mental health risks, 3) It organizes extant empirical data in regard to women's lives, and 4) It offers precise avenues for future empirical research.

4.1. Objectification and society

Objectification theory (Fredrickson and Roberts 1997) contends that women's bodies are constantly looked at, evaluated and always potentially objectified. In the long run, such objectification can be experienced as a stressor, and have deleterious consequences for mental health. In particular, Roberts and Waters (2004) outline four domains of physical mental health that can be affected by objectification: depression, anxiety, eating disorder, and sexual dysfunction. Fredrickson and Roberts (1997) affirm that women's bodies are being constantly gazed, evaluated, and visually inspected in an implicit or explicit sexual manner. Sexual objectification occurs in the context of sexualized gazing, a gendered process often undertook by men towards women. Significantly, sexual objectification takes place when a woman's body, body parts, or sexual functions are extricated from her person, reduced to the status of simple instruments, or viewed as if the disconnected parts represented her. Notably, as sexual objectification is pervasive in society, it is often beyond a woman's control, as only a few women are able to completely avoid sexually objectifying loci and settings.

The experience of objectification cannot be separated from the social arenas in which it takes place, or from society's emphasis on attractiveness as a marker of socioeconomic success. The objectifying gaze occurs in three main arenas: 1) actual social interactions, 2) the visual media that depict interpersonal and social encounters, and 3) the visual media that highlights bodies and body parts. During actual social interactions, Fredrickson and Roberts (1997) assert that women are stared at non-reciprocally more often than men, which is a source of objectification. The visual media that portray interpersonal and social encounters often show men directly looking at females while they are gazing off, or daydreaming. However, the visual media do not showcase the opposite phenomenon. Finally, videos, magazines, and advertisements, usually portray male faces more in detail than female faces. Female bodies, however, are depicted with greater emphasis than male bodies. Furthermore, it is common for magazines and advertisements to display dismembered and disconnected female body parts, such as legs, buttocks, and breasts. Objectification theory further emphasizes that women internalize the observers' perspective regarding their physical appearance. Thus, objectification is a social psychological reflexive process. As such, the cultural milieu in which objectification takes place socializes girls and women to eventually view themselves as objects to be looked at, appraised, and evaluated. Socially, there exists considerable pressure for women to internalize gazes and evaluations, as Western societies uphold physical attractiveness as a predictor of social, economic, and mate selection success (Fredrickson and Roberts 1997). Therefore, women learn to internalize objectification, as they feel societal pressures to look and remain beautiful. Furthermore, studies have demonstrated that a women's physical appearance is closely tied to her self-concept. Physical appearance and beauty can often translate to power for women, turning attractiveness into a mode of currency for social and economic mobility.

Interdisciplinary research across sociology, psychology, and economics has reported that physical appearance is associated with a wide array of positive life outcomes. Recent economic research has concentrated on the effects of beauty on earnings (Hamermesh and Biddle 1994; French 2002; Robins et al. 2011). Results from an array of economic studies concur: attractive people earn more than less attractive people, and these findings are robust across gender. Hamermesh and Biddle (1994) conducted a seminal study in which they used data from the 1970s to test the hypothesis that good-looking individuals have higher earnings than their worse-looking counterparts. Interviewers ranked the respondents on a five- point scale, according to the following five -point classification (Hamermesh and Biddle 1994). The authors found that compared to average-looking women, the wage premium for above-average women was equal to 8%. Below average rankings triggered a wage penalty equal to 4% in women. For men, there was a wage premium for being above-average equal to 4% and a wage penalty for being below- average equal to 13% (Hamermesh and Biddle 1994). Recently, Hamermesh (2011) compared the effect of beauty to that of additional years of education. Findings from a multivariate regression analysis on a large sample of Americans from the Current Population Survey indicated that there was a 10% marginal premium associated with each additional year of schooling (Hamermesh 2011). This effect was slightly larger than the impact of a woman's good looks (10% vs. 8%). A man's good looks, as compared to those of a homely man, were equivalent to at least one a half additional years of schooling (4% penalty + 13% premium = 17% vs. 15%). Biddle and Hamermesh (1998) examined the effects of attractiveness on the earnings of lawyers, utilizing longitudinal data from the graduating classes of the same law school for the years 1971-1978 and 1981-1988. As a basis for this study, the law school provided photographs of students in each entering class. Individuals' looks were ranked on a scale from 1 to 5, by four observers from both genders. Results from this study suggested that there was a beauty premium for lawyers and that it increased with age. Above average looks were associated with at least a 10% premium on earnings, compared to a person who ranked below average. Fifteen years after law school graduation, the beauty premium increased to 12%. Another striking finding from this study was that private sector lawyers had higher beauty premiums than lawyers employed in the public sector. Hamermesh (2011) attributed these results to potential employer discrimination in the private sector. Further, a team of Finnish researchers analyzed the effects of looks on political careers during parliamentary elections (Berggren et al. 2010). The authors investigated whether visual evaluations of political candidates were a predictor of electoral outcomes. Ceteris paribus, beauty appeared to be a significant predictor of electoral success. Indeed, a one standard deviation increase in beauty was associated with a 20% increase in the number of votes for non-incumbent candidates. In follow-up interviews, respondents associated perceptions of competence and trustworthiness to better looking candidates.

Overall, attractiveness seems to be a robust predictor of labor market outcomes and political career success. Moreover, attractiveness also appears to be associated with cognitive traits and educational success. Clifford and Walster (1973) asserted that teachers devoted more attention to attractive children than unattractive children in schools. In a longitudinal study on appearance and education on social mobility, Elder (1969) reported that middle class girls had higher IQs and were more attractive than working-class girls. Research by Zebrowitz et al. (2002) from the Intergenerational Studies of Development and Aging demonstrated that facial attractiveness was also significantly associated with IQ among men and women across most stages of the life-course (childhood, puberty, adolescence, and middle adulthood). Because this association has been critiqued for its potential bias, stereotypical nature, and spuriousness, Kanawaza (2010) compared two nationally representative samples in the United Kingdom (the National Child Development Study) and in the United States (Add Health). He evaluated the effects of attractiveness on intelligence controlling for potential confounding variables, such as race, social class, and health status. In the British sample, general intelligence was operationalized using a composite scale of cognitive tests from ages 7 to 16. The tests evaluated several skills such as arithmetic, design, drawing, reading, verbal general ability, and mathematics comprehension. In the American sample, intelligence was operationalized using a standard IQ metric based on the Peabody Vocabulary Test (PPVT). On the whole, for both the British and American samples, physical attractiveness was a significant predictor of intelligence, although greater in magnitude among British youngsters. A one standard deviation in attractiveness was associated with a 12.4 IQ points increase among British youngsters and a 2.0 IQ points increase among American youths. Interestingly, the association between attractiveness and intelligence was stronger among men in both countries. In the same line of thought, French and associates (2009) evaluated the impact of attractiveness, personality, and grooming on academic performance in high school. Using data from three waves of the Add Health survey, French and colleagues reported that physically attractive females received a grade premium, while physically unattractive men received a grade penalty. When juxtaposed to personality and grooming, the effects of attractiveness on grades disappeared. Grooming and personality were associated with a higher GPA for both male and female adolescents.

Regarding the effects of beauty on mate selection and marriage, studies have presented mixed evidence. Early studies found a substitutability of attractiveness for educational attainment (Elder 1969, Taylor and Glenn 1976). Overall, upward mobility through marriage was associated with physical attractiveness for working class girls more so than for middle class girls. Notably, girls' educational attainment had no effect on marriage mobility. Further, Udry (1977) reexamined the results from the previous studies for both Black and White women. For Black women, appearance was a predictor of upward social mobility through marriage, irrespective of educational attainment levels. However, for White women, appearance predicted upward social mobility only among those who had lower levels of education. More recent research reports diverging results. Stevens et al. (1990) did not find that attractive girls married more successful men. However, they concluded that individuals tended to converge towards similar partners. Attractive people were more likely to marry attractive people, and highly educated persons were more likely to marry highly educated persons, a mechanism known as the matching hypothesis (Berscheid et al. 1971). In a study of British couples, Weisfeld et al. (1992) found support for the matching hypothesis, but not for any substitutability effects.

In addition, couples with more beautiful wives reported higher levels of marital satisfaction. Similarly, Meltzer and McNulty (2014) indicated that couples with better body image perceptions of one another were also more sexually active and happier in their marriage.

Hence, this review has demonstrated that contemporary Western society places considerable emphasis on attractiveness and thinness as indicators of social success. Such emphasis, coupled with objectification and self-objectification processes, represents a tangible source of stress for developing adolescent girls and women entering adulthood.

Chapter Five: The Life-Course Perspective

5.1 The life-course paradigm

Self-perceived changes in body-development do not take place vacuum. Rather, adolescence, puberty, and body image are situated within the context of a young person's life history and specific circumstances. Perceptions of body development and body image shifts may happen at moments of role transitions and changing life structures. For example, an adolescent girl may change her perceptions about her own body after initiating her first romantic relationship. A young boy, however, may change the way he views his body after initiating sexual activity. Therefore, I contend that the analysis of changes in body development can be framed within a life-course perspective.

The multidisciplinary tradition of life-course research highlights the enmeshment of cultural background, social ties, human agency, and timing (Giele and Elder 1998). The interplay of these factors depends not only on the interaction of individual-level factors with meso-and macro-level structures, but also with a third dimension: the element of time. Life-course research incorporates the element of time with the observation of life events and histories, social change, and historical context (Elder et al. 2003). The life-course paradigm has been widely used across the social sciences, developmental psychology, history, and criminology to look at within-individual variation in outcomes over time. Importantly, the life-course tradition is centered around five theoretical axioms: (1) the principle of life-span development: change and continuity occur all along the life-span and not just during childhood years, (2) the principle of agency: humans construct their reality based on choices and decisions that are constrained by social structures and processes, (3) the principle of time and place:

individual development is anchored and rooted in temporal and geographical contexts, (4) the principle of timing: the antecedents and consequences of a person's actions are contingent on the timing when said actions took place during the life-course, (5) the principle of linked lives: individuals are connected and interconnected through shared networks and social relationships; individuals' actions during the life-course impact the events of those in their networks (Elder et al. 2003). In addition, renowned criminologists Sampson and Laub (2003) have used the life-course paradigm to explain crime desistance, turning points, and trajectories of crime. Importantly, they outline the following merits of life-course perspective for such purposes: (1) The life-course perspective seizes processes of engagement in and disengagement from activities, (2) this approach highlights processes of change and continuity over time, (3) life histories uncover the heterogeneity of behaviors that may result in a common outcome, thus explicating intricate phenomena, and (4) the paradigm shows how individual behaviors and actions are rooted in social and historical contexts, subject to change over time (Sampson and Laub 2003).

Drawing on these ideas regarding the life-course perspective, I hope to uncover trajectories, role transitions, and turning points in the life of adolescents undergoing changes in body development. In addition, since I am not interested in mechanisms of social causation versus social selection, the adoption of a life-course perspective seems adequate (George 2003). Rather than identifying direct causal mechanisms, I aim to uncover broader associations, pathways, and processes that link self-perceived body development with adult health. Thus, the life-course perspective is suitable because it is concerned with understanding such larger mechanisms. Therefore, the present study will situate changes in self-perceived body development in the life histories and social contexts of participants.

Furthermore, adopting a life-course paradigm may shed some light on the differential effects of age, cohort, and period in the study of self-perceived adolescent body development and health. Methodologically, one of the tenets of the life-course framework is that not all effects of independent variables on dependent variables are due to individuals aging (Glenn 2003). Glenn (2003) defines these effects and presents statistical methods intended to disentangle these effects. Cohort effects are common phenomena that are present among a group of individuals, because they belong to a same generation or "birth cohort". For instance, individuals born in the 1950s may have similar attitudes towards television because they were part of the first cohorts to own a television at home. Likewise, one may expect to find cohort effects in self-perceived changes in body development among adolescent girls who grew up during the 1990s- a decade characterized by an emphasis on thinness, dieting, and supermodel media images. In addition, adopting a life-course framework will examine potential period effects among adolescents experiencing changes in self-perceived body development. A period effect is a trend that is observable among a group of individuals due to a social, institutional, or economic period of change (Glenn 2003). For instance, it is possible that the economic growth, focus on thinness and dieting industry prevalent in the 1990s in the United States encouraged girls to overestimate their own body development, leading to upward bias in their responses. Glenn (2003) warns that disentangling age, period, and cohort effects statistically is never a perfect method. Although some methods such as the dummy variable method are commonly used, they are not flawless due to identification, and restriction of assumptions issues. Glenn (2003) calls for judgment, theory, and reason alongside statistical methods to disentangle age, period, and cohort effects.

Lastly, this study is particularly suited to a life-course framework because of its emphasis on gender, socioeconomic position, and aging. Furstemberg (2003) asserts that the study of these three social concepts is not complete without engaging in a life-course analysis. The effects of gender, social class, and aging on various social outcomes change during an individual's lifetime. In particular, privileges or disadvantages emerging from gender, social class, and age differences are cumulative over the life-course. Thus, self-perceived changes in body development may be viewed as sources of privilege that accumulate during adolescence to predict adult health. Therefore, it is noteworthy to analyze how different patterns of cumulative privilege or disadvantage -at the intersection of gender, class, and age- evolve with time, and how they affect the health outcomes of adolescents experiencing changes in body development.

Summarily, studying self-perceived changes in adolescent body development from a life-course perspective will highlight the relevance of the five theoretical tenets, contextualize adolescent body development, and identify patterns of cumulative disadvantage/privilege at the intersection of gender, class, and age. Hopefully, this study will disentangle age, period, cohort effects, and identify turning points and trajectories in the lives of adolescents and young adults.

Chapter Six: Research Design

6.1. Empirical specifications

As previously noted, my study explores the impact of self-perceived body development during adolescence on four health outcomes during emerging adulthood. Specifically, I examine the effect of self-perceived body development during adolescence on 5 outcomes during emerging adulthood: 1) self-rated health, 2) the occurrence of lifetime depression diagnosis, 3) scores on the CES-D depression scale, 4) the occurrence of psychological or emotional counseling, and 5) Body Mass Index (BMI).

Finally, the current dissertation presents one set of sensitivity analyses for women: I investigate the independent impact of each individual component of the index on the outcome variables.

For each outcome variable examined, I include four approaches: 1) a specification examining the effect of the raw self-perceived body development index on the outcome variables, 2) a specification examining the effect of belonging to the top and bottom quartiles of the self-perceived body development index distribution on the outcome variables, 3) a specification examining the effect of belonging to top and bottom deciles of the self-perceived body development distribution, and 4) a specification examining the impact of belonging to the top and bottom 5^{th} percentiles of the self-perceived body development index distribution.

My analyses incorporate five "stacked" models in my longitudinal specifications, so as to observe changes in the magnitude and significance of my variables of interest as more covariates are added into the model. The first "stacked" model includes only the index of self-perceived body development. The second "stacked" model includes a set of possibly exogenous socio-demographic variables. The third model account for measures of family composition and social support. The fourth "stacked" model adds educational attainment and earnings variables. Finally, the fifth and most inclusive "stacked" model reports health, lifestyle, genetic, and substance use variables.

6.2. Analytical approach 1: Raw index

The first approach consists in including the raw index into the regression analyses as the main explanatory variable, to determine the existence of a linear relationship between self-perceived body development and the five outcome variables of interest. Because self-rated health and the CES-D dependent variables are ordered categories, I perform ordered probit regressions. Marginal effects at the mean are calculated for the self-rated health, utilizing the "margins command" in Stata 13 (2013). Because the occurrence of lifetime depression diagnosis and the occurrence of past 12 months psychological or emotional counseling are binary variables, I estimate these specifications with probit regressions. Because BMI is a continuous variable, I estimate the models pertaining to BMI with OLS regressions (Wooldridge 2009). In this first approach, I estimate the following five equations:

$$\text{Self-rated health}_i = \beta_0 + \beta_1\, z\,(SPBDI)_i + X\beta x + \mu_i \quad [3]$$

$$\text{Occurrence of lifetime of depression diagnosis}_i = \beta_0 + \beta_1\,(SPBDI)_i + X\beta x + \mu_i \quad [4]$$

$$\text{CESD Depression scale score}_i = \beta_0 + \beta_1\,(SPBDI)_i + X\beta x + \mu_i \quad [5]$$

$$\text{Occurrence of psychological or emotional or mental health counseling}_i = \beta_0 + \beta_1\,(SPBDI)_i + X\beta x + \mu_i \quad [6]$$

$$Ln\,(BMI)_i = \beta_0 + \beta_1\,(SPBDI)_i + X\beta x + \mu_i \quad [7]$$

Where $SPBDI_i$ is the raw index of individual i's self-perceived body development, the primary independent variable. β_0 is the y-intercept of the regression line, corresponding to a constant value. $\beta 1$ is the regression coefficient to be estimated for each of the erotic capital variables. X is the set of control variables and μ is a random error term. Each of these five equations will be estimated using the statistical package Stata 13 (2013). One of the assumptions of Ordinary Least Squares (OLS) regression is that the residual error terms are independent. However, the Add Health data set comprises individuals nested within 142 schools. Thus, it is quite probable that the values within each school may not be independent of one another. This could lead to error terms that are not independent of one another within schools. Thus, the cluster command in Stata 13 was utilized in order to obtain residuals that are independent of one another, hence not violating OLS assumptions.

Because self-rated health and the CES-D depression scale are ordinal dependent variables, equations [3] and [5] are estimated using ordered probit regressions. Because the lifetime occurrence of lifetime depression diagnosis and the occurrence of seeking psychological or mental health counseling are variables ranging from 0 to 1, equations [4] and [6] are estimated with probit regressions, and marginal effects for the coefficients of interest are reported in brackets. With regard to equation [7], this model is of the log-linear form; thus $\beta 1$ will be interpreted as the approximate percentage change in BMI associated with a one-unit change in the self-perceived body development index (Wooldridge 2009). These equations are estimated separately for women and men.

6.3. Analytical approach 2: top and bottom quartiles

The second analytical approach consists in splitting the self-perceived body development distribution into quartiles, to analyze the impact of pertaining to the top or bottom 25% of the distribution. I created dummy variables equal to 1 if individuals belonged in the top and bottom quartiles, and equal to 0 otherwise. Each regression model includes the top and bottom quartile dummies, leaving out the interquartile range as the reference category. Because the distribution of the self-perceived body development index is not continuous- as its values range from 3 to 15, I could not generate cutoff points that split the distribution at exactly 25%, 50%, and 75%. Among women, the top quartile thus contains the top 16.3% of the self-perceived body development distribution and the bottom quartile includes the bottom 27.8% of the self-perceived body development distribution. The interquartile range, the reference category, thus includes the remaining 55.9% of the distribution. Among men the top quartile thus contains the top 24.1% of the self-perceived body development distribution and the bottom quartile includes the bottom 26.1% of the self-perceived body development distribution. The interquartile range, the reference category, thus includes the remaining 49.8% of the distribution. Because self-rated health and the CES-D dependent variables are ordered categories, I perform ordered probit regressions. Marginal effects at the mean are calculated for the self-rated health, utilizing the "margins command" in Stata 13 (2013). Since the occurrence of lifetime depression diagnosis and the occurrence of past 12 months psychological or emotional counseling are binary variables, I estimate these specifications with probit regressions. Because BMI is a continuous variable, I estimate the models predicted to BMI with OLS regressions (Wooldridge 2009).

In this second approach, I estimate the following five equations:

$$Self\text{-}rated\ health_i = \beta_0 + \beta_1\ (BQSPBDI)_i + \beta_2\ (TQSPBDI)_i\ X\beta x + \mu_i \quad [8]$$

$$Occurrence\ of\ Lifetime\ of\ depression\ diagnosis_i = \beta_0 + \beta_1\ (BQSPBDI)_i + \beta_2\ (TQSPBDI)_i\ X\beta x + \mu_i \quad [9]$$

$$CESD\ Depression\ scale\ score_i = \beta_0 + \beta_1\ (BQSPBDI)_i + \beta_2\ (TQSPBDI)_i\ X\beta x + \mu_i \quad [10]$$

$$Occurrence\ of\ psychological\ or\ emotional\ counseling_i = \beta_0 + \beta_1\ (BQSPBDI)_i + (TQSPBDI)_i\ X\beta x + \mu_i \quad [11]$$

$$Ln\ (BMI)_i = \beta_0 + \beta_1\ (BQSPBDI)_i + \beta_2\ (TQSPBDI)_i + \mu_i \quad [12]$$

Where $BQSPBDI_i$ represents the dummy variable associated with individuals pertaining to the bottom quartile of the index of individual i'self-perceived body development. $BQSPBDI_i$ represents the dummy variable associated with individuals pertaining to the top quartile of the index of individual i'self-perceived body development, the primary independent variable. $BQSPBDI_i$ and $TQSPBDI_i$ are the primary explanatory variables of interest in the present analytical framework.

β_0 is the y-intercept of the regression line, corresponding to a constant value. β_1 is the regression coefficient to be estimated for the bottom quartile of the self-perceived body development index; β_2 is the regression coefficient to be estimated for the top quartile of the self-perceived body development index. X is the set of control variables and μ is a random error term. Each of these five equations will be estimated using the statistical package Stata 13.1 (2013). Similar to the specification including the raw index, the regression standard errors will be adjusted for clustering. Because self-rated health and the CES-D depression scale are ordinal dependent variables, equations [8] and [10] are estimated using ordered probit regressions. Because the lifetime likelihood of depression diagnosis and the likelihood of seeking emotional or mental health counseling are variables ranging from 0 to 1, equations [9] and [11] are estimated using probit regressions and reporting marginal effects for the coefficients of interest. Equation [12] this model is of the log-linear form; thus $\beta 1$ will be interpreted as the approximate percentage change in BMI associated with a one-unit change in the self-perceived body development index (Wooldridge 2009). Each of the previous equations is estimated separately for men and women.

6.4. Analytical approach 3: top and bottom deciles

The third analytical strategy consists in splitting the self-perceived body development distribution into deciles, so as to analyze the impact of pertaining to the top or bottom 10% of the self-perceived body development distribution. I created dummy variables equal to 1 if individuals belonged in the top and bottom deciles, and equal to 0 otherwise. Each regression model includes the top and bottom decile dichotomous variables, leaving out the rest of the distribution as the reference category. Once again, because the distribution of the self-perceived body development index is not continuous- as its values range from 3 to 15, I could not generate cutoff points that split the distribution at exactly 10%, and 90%. Among women, the top decile thus contains the top 8.5% of the self-perceived body development distribution and the bottom quartile includes the bottom 9.5% of the self-perceived body development distribution. The inter-decile range, the reference category, thus includes the remaining 82% of the distribution. Among men, the top decile of the distribution contains the top 9.9% of the self-perceived body development distribution and the bottom quartile includes the bottom 10.1% of the self-perceived body development distribution. The inter-decile range, the reference category, thus includes the remaining 80% of the distribution. . Because self-rated health and the CES-D dependent variables are ordered categories, I perform ordered probit regressions. Marginal effects at the mean are calculated for the self-rated health, utilizing the "margins command" in Stata 13 (2013). Because the occurrence of lifetime depression diagnosis and the occurrence of past 12 months psychological or emotional counseling are binary variables, I estimate these specifications with probit regressions. Because BMI is a continuous variable, I estimate the models pertaining to BMI with OLS regressions (Wooldridge 2009).

In this third approach, I estimate the following five equations:

$$\text{Self-rated health}_i = \beta_0 + \beta_1 (D1SPBDI)_i + \beta_2 (D10SPBDI)_i X\beta x + \mu_i \quad [13]$$

$$\text{Occurrence of Lifetime of depression diagnosis}_i = \beta_0 + \beta_1 (D1SPBDI)_i + \beta_2 (D10SPBDI)_i X\beta x + \mu_i \quad [14]$$

$$\text{CESD Depression scale score}_i = \beta_0 + \beta_1 (D1SPBDI)_i + \beta_2 (D10SPBDI)_i X\beta x + \mu_i \quad [15]$$

$$\text{Occurrence of psychological or emotional counseling}_i = \beta_0 + \beta_1 (D1SPBDI)_i + (D10SPBDI)_i X\beta x + \mu_i \quad [16]$$

$$Ln\,(BMI)_i = \beta_0 + \beta_1 (D1SPBDI)_i + \beta_2 (D10SPBDI)_i + \mu_i \quad [17]$$

Where $D1SPBDI_i$ represents the dummy variable associated with individuals pertaining to the bottom decile of the index of individual i'self-perceived body development. $D10SPBDI_i$ represents the dummy variable associated with individuals pertaining to the top quartile of the index of individual i'self-perceived body development, the primary independent variable. $D1SPBDI_i$ and $D10SPBDI_i$ are the primary explanatory variables of interest in the present analytical framework.

β_0 is the y-intercept of the regression line, corresponding to a constant value. β_1 is the regression coefficient to be estimated for the bottom decile of the self-perceived body development index; $\beta 2$ is the regression coefficient to be estimated for the top decile of the self-perceived body development index. X is the set of control variables and μ is a random error term. Each of these five equations will be estimated using the statistical package Stata 13.1 (2013). Similar to the specification including the raw index, the regression standard errors will be adjusted for clustering. Because self-rated health and the CES-D depression scale are ordinal dependent variables, equations [13] and [15] are estimated using ordered probit regressions. Because the lifetime occurrence of depression diagnosis and the occurrence of past 12 months emotional or mental health counseling are variables ranging from 0 to 1, equations [14] and [16] are estimated using probit regressions and reporting marginal effects for the coefficients of interest. Regarding equation [17] this model is of the log-linear form; thus $\beta 1$ will be interpreted as the approximate percentage change in BMI associated with a one-unit change in the self-perceived body development index (Wooldridge 2009). Each of the previous equations is estimated separately for men and women.

6.5. Analytical approach 4: top and bottom 5th percentiles

The fourth analytical strategy consists in splitting the self-perceived body development distribution into percentiles, so as to analyze the impact of belonging to the top or bottom 5th percentiles of the self-perceived body development distribution. I generated dummy variables equal to 1 if individuals belonged in the top and bottom 5th percentile, and equal to 0 otherwise. Each regression model includes the top and bottom 5th percentiles dichotomous variables, leaving out the rest of the distribution as the reference category. Again, because the distribution of the self-perceived body development index is not continuous- as its values range from 3 to 15- I could not generate cutoff points that split the distribution at exactly 5%, and 95%. Among women, the top 5th percentile thus contains the top 5.3% of the self-perceived body development distribution and the bottom 5th percentile includes the bottom 3.4% of the self-perceived body development distribution. The inter-percentile range, the reference category, thus includes the remaining 90.30% of the distribution. Among men, the top 5th percentile thus contains the top 4.4% of the self-perceived body development distribution and the bottom 5th percentile includes the bottom 5.5% of the self-perceived body development distribution. The inter-decile range, the reference category, thus includes the remaining 90.10% of the distribution. In this fourth analytical approach, I estimate the following five equations:

$$\textit{Self-rated health}_i = \beta_0 + \beta_1 (B5PSPBDI)_i + \beta_2 (T5PSPBDI)_i X\beta x + \mu_i \quad [18]$$

$$\textit{Lifetime occurrence of depression diagnosis}_i = \beta_0 + \beta_1 (B5PSPBDI)_i + \beta_2 (T5PSPBDI)_i X\beta x + \mu_i \quad [19]$$

$$\textit{CES-D Depression scale score}_i = \beta_0 + \beta_1 (B5SPBDI)_i + \beta_2 (T5PSPBDI)_i X\beta x + \mu_i \quad [20]$$

$$\textit{Occurrence of past 12 months emotional or mental health counseling}_i = \beta_0 + \beta_1 (B5PSPBDI)_i + (T5PSPBDI)_i X\beta x + \mu_i \quad [21]$$

$$Ln (BMI)_i = \beta_0 + \beta_1 (B5PSPBDI)_i + \beta_2 (T5PSPBDI)_i + \mu_i \quad [22]$$

Where $B5SPBDI_i$ represents the dummy variable associated with individuals belonging to the bottom 5th percentile of the index of individual i'self-perceived body development. $T5SPBDI_i$ represents the dummy variable associated with individuals pertaining to the top 5th percentile of the index of individual i'self-perceived body development, the primary independent variable. $B5SPBDI_i$ and $T5SPBDI_i$ are the primary explanatory variables of interest in the present analytical framework.

β_0 is the y-intercept of the regression line, corresponding to a constant value. β_1 is the regression coefficient to be estimated for the bottom 5th percentile of the self-perceived body development index; $\beta 2$ is the regression coefficient to be estimated for the top 5th percentile of the self-perceived body development index. X is the set of control variables and μ is a random error term. Each of these five equations will be estimated using the statistical package Stata 13.1 (2013). Similar to the specification including the raw index, the regression standard errors will be adjusted for clustering. Because self-rated health and the CES-D depression scale are ordinal dependent variables, equations [18] and [20] are estimated using ordered probit regressions. Because the lifetime occurrence of depression diagnosis and the occurrence of past 12 months psychological or mental health counseling are variables ranging from 0 to 1, equations [19] and [21] are estimated using probit regressions and reporting marginal effects for the coefficients of interest. Regarding equation [22] this model is of the log-linear form; thus $\beta 1$ will be interpreted as the approximate percentage change in BMI associated with a one-unit change in the self-perceived body development index (Wooldridge 2009). Each of the previous equations is estimated separately for men and women.

6.6. Sensitivity analyses

In order to examine the robustness of the core results, I conducted sensitivity tests in addition to the main empirical analyses. For each outcome variable, I conducted sensitivity analyses in which I replaced the self-perceived body development index by individual measures of breast development, curves development, and overall advanced development to assess the individual impact of each factor on health outcomes. Specifically, I created dummy variables analyzing the effect of slow versus advanced body development for each measure. Slow development is equal to

1 if the respondent's score on each separate item is equal to 1 or 2, and advanced development is equal to 1 if the respondents' score on each distinct item is equal to 4 or 5. Responses equal to 3 are the omitted category. The results for these sensitivity analyses are presented in Tables 7A-7D on pages 211-218.

6.7. Internal consistency and exploratory factor analysis

In order to assess the reliability of my constructed index of self-perceived body development, I conducted an internal-consistency evaluation. With this approach, I examined the relationships among all the items of self-perceived body development simultaneously, to determine the extent to which the items are homogenous. In other words, for women, to what degree do self-perceived breast development, self-perceived breast development, and self-perceived overall development; measure the same concept of self-perceived body development? The most frequent internal-consistency estimate used is the Cronbach's alpha. Cronbach's alpha measures the average of the correlations between all possible pairs of items. The Cronbach's alpha test yielded an alpha value of 0.658 for men and 0.679 for men. Traditionally in the social sciences, a threshold of 0.70 for Cronbach's alpha has been established as the standard for acceptable reliability (Nunnally 1978). However, recent analysts have argued that a common threshold for sufficient values of alpha is 0.6 (Hair et al.2006). The present result of 0.658 and 0.679 are greater 0.6. Findings from this test suggest that the items of self-perceived-body development have an acceptable, near optimal level of internal consistency.

Additionally, I analyzed the factor structure of the three components of self-perceived body development using the principal components technique for both women and men with Stata 13 (2013). Factor analysis is a procedure intended to investigate the possibility that various items have one or a few factors in common that explain their inter-item correlations (Miller and Salkind 2002). For women, since there are three factors, the total variance in this analysis was equal to 3. The factor structure revealed that self-perceived breast development accounted for 97.10% of the total variance of self-perceived body development. Self-perceived curves development accounted for 2.00%, and self-perceived advanced physical development accounted for 0.09% of the total variance. The variances extracted by the factors are called eigenvalues. The Kaiser criterion (1960) recommends retaining only those factors whose eigenvalues are greater than 1, i.e. those factors that explain more than 10% of the total variance. If the difference between the first two factors is equal or greater to 1, then a one-factor solution is justified. In the present analysis, one factor had an eigenvalue greater than 1 (= 1.385). In this analysis, the difference between the greatest two factors was equal to 1.355, which is a value greater than 1. This suggested that a one-factor solution is recommended to self-perceived body development among women. Further analysis among men also suggested a one factor solution, as the greatest eigenvalue was greater than 1 (= 1.456), and the difference between the two largest eigenvalues was equal to 1.303. Results from the principal component factor analysis revealed that underarm hair development accounted for 84.70% of the total variance, facial hair development accounted for 8.90% of the total variance, self-perceived voice level accounted for 6.30% of the total variance, and self-perceived advanced physical development accounted for 0.01% of the total variance.

6.8 Research questions

As was previously described, the current research examines the impact of self-perceived body development during adolescence on four major health outcomes occurring during the phase of emerging adulthood. Specifically, two major research questions guide my analyses:

1) Is self-perceived body development during adolescence experienced as a stressor, and therefore associated with deleterious health outcomes during emerging adulthood?
2) How do self-perceptions of body development impact men and women differently, thus having a differential effect on health outcomes during emerging adulthood?

6.9. Hypotheses

Based on the previous empirical and theoretical literature review, I derive the following sets of hypotheses[1]:

6.9.1 Self-rated health

H1: Individuals with greater scores on the self-perceived body development index will be more likely than individuals with lower scores on the self-body development index to report poorer levels of self rated health.

[1] In each set of hypotheses, the first hypothesis H1 relates to conjectures about the raw index; the second hypothesis H1a is a corollary related to conjectures about belonging to the bottom and top of the self-perceived body development index distribution.

H1a: Individuals at the bottom and top tails of the self body-development index distribution will be more likely than individuals at the center of the distribution to report poorer levels of self-rated health.

6.9.2 Occurrence of lifetime depression diagnosis

H2: Individuals with greater scores on the self-perceived body development index will be more likely than their counterparts with lower scores to have been diagnosed with depression in their lifetime than individuals with lower scores on the self-body development index.

H2a: Individuals at the bottom and top tails of the self body-development index distribution will be more likely than individuals at the center of the distribution to have been diagnosed with depression in their lifetime.

6.9.3 CES-D Depression scores

H3: Individuals with greater scores on the self-perceived body development index will be more likely to have higher scores on the CES-D depression scale than individuals with lower scores on the self-body development index.

H3a: Individuals at the lower and top tails of the self body-development index distribution will be more likely to have higher scores on the CES-D depression scale individuals at the center of the distribution.

6.9.4 Occurrence of psychological or emotional counseling, past 12 months

H4: Individuals with greater scores on the self-perceived body development index will be more likely to seek psychological or emotional counseling than individuals with lower scores on the self-body development index.

H4a: Individuals at the lower and top tails of the self body-development index distribution will be more likely to seek psychological or emotional counseling than individuals at the center of the distribution.

6.9.5 Body Mass Index (BMI)

H4: Individuals with greater scores on the self-perceived body development index will be more likely to have greater BMIs than individuals with lower scores on the self-body development index.

H4a: Individuals at the lower tail of the self-perceived body development distribution will be more likely to have lower BMIs than individuals in the center of the distribution, and individuals in the top tails of the self body-development index distribution will be more likely to have higher BMIs individuals at the center of the distribution.

6.9.6 Gendered effects

H5: Adolescent girls will experience self-perceived body development as a stressor more than boys.

H5a: Self-perceived body development will have a greater impact on all health outcomes for girls than for boys.

Chapter Seven: Data and Variables

7.1. The National Longitudinal Study of Adolescent Health

The data from this study come from Waves I, III, and IV of the National longitudinal Study of Adolescent Health (Add Health). Add Health is a nationally representative survey of non-institutionalized individuals in the United States. The fourth in-home interview wave was conducted in 2007 and 2008, fourteen years after Wave I, which took place in 1994 and 1995. At the time of Wave I, respondents were between grades 7 and 12- approximately between the ages of 11 and 21. At the time of Wave III, which was collected between 2001 and 2002, respondents were between the ages of 18 and 26. At the time of Wave IV, respondents were between the ages of 24 and 32. The total sample analyzed in this study consists of 7,190 women and 6,392 men who answered self-perceived development questions at Wave I, and who reported data on self-reported health status, the likelihood of lifetime depression diagnosis, scores on the CES-D depression scale, Body Mass Index (BMI), and genetic information at Wave IV. Illustrations of the sample construction for men and women are presented in Figures 1 and 2 on pages 151 and 152, respectively.

The Add Health data have many advantages for the present analysis. Add Health features measures of self-perceived body development at Wave I, which are essential in the construction of the current index of self-perceived body development.

Furthermore, Wave IV collects biometric data on variables such as height, weight, Body Mass Index (BMI), and genetic markers of susceptibility to depression and mental health ailments- such as 5HTT and MAOA, which will be central to this analysis.

Notwithstanding these advantages, the Add Health data have a few shortcomings. Indeed, I faced sample attrition issues between Waves 1,3, and 4; which I explained above. Additionally, no measure of depression is available at Wave I, which precludes me from controlling for baseline depressive status and thus claiming a direct causal mechanism between self-perceived body development at Wave I and depression at Wave IV. In addition, the variables measuring self-perceived body development differ across genders; they do not capture the same concepts, as they hone in more on body development and curves for women, and on voice deepening and body/facial hair growth for men.

7.2. Self-perceived body development measures

The concept of self-perceived body development represents the primary explanatory variable of this study. The concept of self-perceived body development is operationalized by a composite additive measure of three subjective developmental aspects of adolescence for women, two of which are often subject to sexual objectification and a source of stress- breasts and curves (Fredrickson and Roberts 1997). For men, the index is a composite additive measure of five post-pubertal changes. In order to operationalize the concept of self-perceived body development, I constructed two indices -one for each gender- encapsulating these elements. The present section outlines the construction of these measures.

For women, the index of self-perceived body development represents the addition of three survey items tapping subjective measures of body development during adolescence: 1) breast development, 2) curves development, and 3) overall body development (the detailed descriptions of those items are below) The resulting self-perceived body development index ranges from 3 to 15 with a mean of 9.931 and a standard deviation of 2.565. These values are summarized in Table 1B on page 159. A histogram of the distribution of the self-perceived body development index is presented in Figure 3 on page 153.

Equation 1 sums up the construction of this index for women:

$$\text{Self-Perceived Body Development} = \text{Spb} + \text{Spc} + \text{Spapd}. \qquad [1]$$

where:

Spb. = self-perceived breast development,

Spc. = self-perceived curves development, and

Spapd. = self-perceived overall development.

Self-perceived breast development, the first component of the self-perceived body development index is operationalized using the respondent's assessment of their breast development compared to grade school. The assessment of the respondent's own breast development is evaluated with the following question: *"As a girl grows up her breasts develop and get bigger. Which sentence best describes you?"* Respondents rated their breast development on a Likert scale ranging from 1 to 5. A rating of 1 corresponds to a woman whose breasts are about the same size as when she was in grade school, a rating of 2 corresponds to a woman whose breasts are a little bigger than when she was in grade school, a rating of 3 corresponds to a woman whose breasts are somewhat bigger than when she was in grade school, a rating of 4 corresponds to a woman whose breasts are a lot bigger than when she was in grade school, and a rating of 5 corresponds to a woman whose breasts are as developed as a grown woman's breasts- they are a whole lot bigger than when she was in grade school. All other responses are coded as missing. Self-perceived breast development responses range from 1 to 5, with a mean of 3.332 and a standard deviation of 1.101. These summary statistics are presented in Table 1B on page 159.

Self-perceived curves development; the second component of the self-perceived body development index is operationalized using the respondent's assessment of their breast development compared to grade school. The assessment of the respondent's own breast development is evaluated with the following question: *"As a girl grows up her body becomes more curved. Which sentence best describes you?"* Respondents rated their curves development on a Likert scale ranging from 1 to 5. A rating of 1 corresponds to a woman whose body is about as curvy as when she was in grade school, a rating of 2 corresponds to a woman whose body is a little more curvy than when she was in grade school, a rating of 3 corresponds to a woman whose body is somewhat bigger than when she was in grade school, a rating of 4 corresponds to a woman whose body is a lot more curvy than when she was in grade school, and a rating of 5 corresponds to a woman whose body is a whole lot more curvy than when she was in grade school. All other responses are coded as missing. Self-perceived curves development responses range from 1 to 5, with a mean of 3.363 and a standard deviation of 1.083. These summary statistics are presented in Table 1B on page 159.

Self-perceived overall development, the third component of the self-perceived body development index is operationalized using the respondent's assessment of how old they think they look compared to other girls their age. The assessment of the respondent's perceived physical development: *"How advanced is your physical development compared to other girls your age?"* Respondents rated their physical development on a Likert scale ranging from 1 to 5. A rating of 1 corresponds to a woman who thinks she looks younger than most, a rating of 2 corresponds to a woman who thinks she looks younger than some, a rating of 3 corresponds to a woman who thinks she looks about average, a rating of 4 corresponds to a woman who thinks she looks older than some, and a rating of 5 corresponds to a woman who thinks she looks older than most. All other responses are coded as missing. Self-perceived advanced physical development responses range from 1 to 5, with a mean of 3.235 and a standard deviation of 1.100. These summary statistics are presented in Table 1B on page 159.

For men, equation 2 sums up the construction of the index of self-perceived body development:

$$\text{Self-Perceived Body Development} = \text{Spuh.} + \text{Spfh.} + \text{Spvl.} + \text{Spapd.}, \qquad [2]$$

where:

Spuh. = self-perceived underarm hair development,

Spfh. = self-perceived facial hair development, Spvl. = self-perceived voice level, and

Spapd. = self-perceived advanced physical development.

Self-perceived underarm hair development, the first component of the self-perceived body development index is operationalized using the respondent's assessment of how much hair they have under their arms. The assessment of the respondent's own underarm hair development is evaluated with the following question: *"How much hair is under your arms now. Which sentence best describes you?"* Respondents rated their underarm hair development on a Likert scale ranging from 1 to 5. A rating of 1 corresponds to a man assesses that he has no hair at all under his arms, a rating of 2 corresponds to a man who assesses that he has a little hair under his arms, a rating of 3 corresponds to a man who has some hair, but not a lot, and that has spread out since it first started growing and is thicker, a rating of 4 corresponds to a man who assesses he has a lot of hair that is thick, and a rating of 5 corresponds to a man who assesses that he has a whole lot of hair that is very thick, as much as a grown man. All other responses are coded as missing. Self-perceived underarm hair development responses range from 1 to 4, with a mean of 3.313 and a standard deviation of 1.235. These summary statistics are presented in Table 1A on page 156.

Self-perceived facial hair development, the second component of the men's self-perceived body development is operationalized using the respondent's assessment of the thickness of his facial hair. The assessment of the respondent's own facial hair development is evaluated using the following question: *"How thick is the hair on your face? Which sentence best describes you?"* Respondents rated the development of their facial hair using a Likert scale with responses ranging from 1 to 4. A rating of 1 corresponds to a man who has a few facial hairs but the growth is not thick, a rating of 2 corresponds to a man whose facial hair is somewhat thick, but one can see the skin under it, a rating of 3 corresponds to a man whose facial hair is somewhat thick; one cannot see much skin under it, and a rating of 4 corresponds to a man whose facial hair is very thick, like a grown man's facial hair. All other responses are coded as missing. Self-perceived facial hair development responses range from 1 to 4, with a mean of 3.521 and a standard deviation of 1.083. These summary statistics are presented in Table 1A on page 156.

Self-perceived voice level, the third component of the self-perceived body development index is operationalized using the respondent's assessment of the deepening of their own voice compared to when they were in grade school. The assessment of the respondent's perceived voice level is measure with the following question: *"Is your voice lower now than it was when you were in grade school?"* Respondents rated their voice development on a Likert scale ranging from 1 to 5. A rating of 1 corresponds to a man who thinks his voice is about the same as when he was in grade school, a rating of 2 corresponds to a man who thinks his voice is a little lower than when he was in grade school, a rating of 3 corresponds to a woman who thinks his voice is somewhat lower than when he was in grade school, a rating of 4 corresponds to a man who thinks his voice is a lot lower than when he was in grade school, and a rating of 5 corresponds to a man who thinks his voice is a whole lot lower than when he was in grade school; it is similar to a grown man's voice. All other responses are coded as missing. Self-perceived voice level responses range from1 to 5, with a mean of 3.420 and a standard deviation of 1.110. These summary statistics are presented in Table 1A on page 156.

Self-perceived overall development, the fourth component of the self-perceived body development index is operationalized using the respondent's assessment of his own physical development, as compared to peers. The assessment of the respondent's physical development is measured with the following question: "How advanced is your physical development compared to other boys your age?" Respondents rated their personal development on a Likert scale ranging from 1 to 5. A rating of 1 corresponds to a man who thinks he looks younger than most, a rating of 2 corresponds to a man who thinks he looks younger than some, a rating of 3 corresponds to a man who thinks he looks about average, a rating of 4 corresponds to a man who thinks he looks older than some, and a rating of 5 corresponds to a man who thinks he looks older than most. All other responses are coded as missing. Self-perceived voice level responses range from 1 to 5, with a mean of 3.333 and a standard deviation of 1.200. These summary statistics are presented in Table 1A on page 156. A histogram of the distribution of the self-perceived body development index is presented in Figure 4 on page 154.

7.3. Dependent variables

7.3.1Self-rated health status

The first outcome variable of interest in the current analysis is self-rated health status measured at Wave IV. Respondents were asked to answer the following question:

"In general, how is your health", with response categories ranging from 1 to 5. A response category of 1 indicates excellent health. A response category of 2 indicates very good health. A response category of 3 indicates good health. A response category of 4 indicates fair health. Finally, a response category of 5 indicates poor health. Self-rated health status has been coined as a robust and consistent predictor of mortality (Idler and Benyamini 1997). In a review of 27 global community studies, Idler and Benyamini conclude that self-rated health status predicts mortality above and beyond objective measures of health. I reverse coded self-rated health status is measured so that the Likert scale ranging from 1-5 would correspond to 1 indicating poor health and to 5 indicating excellent health. The recoded measure has a mean of 3.708 and a standard deviation of 0.903 for men, and a mean of 3.608 and a standard deviation of 0.911 for women. These means and standard deviations are presented in Table 1A and 1B on pages 156 and 159.

7.3.2 Occurrence of lifetime depression diagnosis measure

The second variable of interest in the present study measures the occurrence lifetime depression diagnosis, measured at Wave IV. Respondents were asked to answer the following question: *"Has a doctor, nurse or other health care provider ever told you that you have or had: depression?"* This variable is dichotomous and takes on a value of one if the individual has ever been diagnosed with depression during their lifetime. For men, the mean is equal to 0.124 with a standard deviation of 0.329. Among women, the mean is equal to 0.236, with a standard deviation of 0.426. These means and standard deviations are presented in Table 1A and 1B on pages 156 and 158, respectively.

7.3.3 CES-D Depression scale measure

The third outcome variable of interest is the Center for Epidemiologic Studies Depression Scale (CES-D depression scale). The CES-D depression scale is a widely used screening tool for depression and depressive disorder. It measures symptoms of depression as defined by the American Psychiatric Association's Diagnostic and Statistical Manual (DSM-V). Add Health revisited the original 19-item instrument, which originally was constructed to assess adult participants' depression level (Radloff 1977). Each item ranges from 0 to 3 (0 = rarely or none of the time, 1 = some of the time, 2 = a lot of the time, and 3 = most or all of the time). The CES-D depression scale in Add Health omitted two of the original items: *"I have a crying spells"* and *"My sleep was restless"*. Specifically, Add Health rephrased two of the items *"I felt that everything I did was an effort"* and "*I could not get going"* from the original 20-item instrument, and the reworded items helped to assess children's depression level (Faulstich et al. 1986; Weissman et al. 1980). One extra item *"I felt that my life was not worth living"* was added to the CES-D scale. Garrison et al. (1991) argue that the latter item represents a reliable indicator of adolescent depression. All positive affect items (hopeful about the future, happy, enjoyed life, and felt as good as other people) were reverse-coded, indicating that a higher score is associated with less positive mood and affect. The full list of modified CES-D items utilized in the Add Health study is included in Appendix 1 on page 218. The mean is equal to 2.293 for men and a standard deviation of 2.325. Among women, the mean is equal to 2.822 and the standard deviation is equal 2.657. These means and standard deviations are presented in Table 1A and 1B on pages 155 or 158.

7.3.4 Occurrence of psychological or emotional counseling measure

The fourth outcome variable of interest is the occurrence of past 12 months psychological or emotional counseling, measured at Wave IV with a dichotomous variable. Respondents were asked to answer the following question: "*In the past 12 months have you received psychological or emotional counseling?"* Among men, the mean is 0.073 and the standard deviation 0.259.Among women, the mean is equal to 0.119 and the standard deviation is equal to 0.323. These means and standard deviations are presented in Table 1A and 1B on pages 155 or 158.

7.3.5 BMI measure

My main measure for operationalizing body weight is body mass index (BMI). BMI is an indicator of weight with relation to height, which is frequently used nationally and internationally to classify individuals as underweight, healthy weight, overweight, or obese. BMI is calculated by dividing the weight in kilograms by the height in meters squared (World Health Organization 2012). Individuals are considered underweight if their BMI is less than 18.5, a healthy weight if their BMI is between 18.5 and 24.99, overweight if their BMI is between 25 and 29.99, and obese if their BMI is greater than 30. The categories of thinness and obesity include subcategories of severe thinness, moderate thinness, mild thinness, obesity class I, obesity class II, and obesity class III (World Health Organization 2012). BMI is a strong indicator and predictor of overall health status and several specific health markers. A BMI above 25 puts an individual at increased risks for Type II diabetes, cardiovascular disease, hypertension, adverse lipid concentration, arthritis, breathing problems, and certain types of cancer (CNPP 2000). I am using an objectively measured value of BMI (i.e. not self-reported), which I log in order to smooth out the distribution and correct the effect of outliers.

7.4. Control variables

In order to isolate the impact of women and men's self-perceived body development on health outcomes at Wave IV, I controlled for factors that influence or could potentially impact health outcomes and buffer the effects of self-perceived body development during adolescence on adult health. The current analyses include the following four sets of control variables: 1) demographic, 2) family and social support, 3) education and earnings, and 4) health and lifestyle.

In the first set of control variables, I controlled for the effects of socio-demographic variables such as race and ethnicity, age, marital status, and whether the respondents were born in the U.S. Age is measured in continuous years at Wave IV. White is the reference group for race. Black is equal to 1 if the individual is Black, other race is equal to 1 if the individual is American Indian or and Asian. Hispanic ethnicity is a dichotomous variable equal to 1 if the respondent self-reports as Hispanic. Born in the U.S. is a dichotomous variable equal to 1 if the respondent was born in the U.S. or equal to 0 if the respondent was born abroad.

The second set of control variables includes family and social support variables, which represent significant psychosocial resources that can potentially buffer the impact of self-perceived body development on adult health. As such, I included a dichotomous measure of parental presence in the household at Wave 1 equal to 1 if the father was present in the household or equal to 0 otherwise. I also included a dichotomous measure of maternal presence in the household at Wave 1 equal to 1 if the mother was present in the household or equal to 0 otherwise. I also incorporated a count of children living in the household. Further, I added a dummy variable capturing whether the respondent was the oldest child in the household and another dichotomous variable measuring whether the respondent lived in a household with their two biological parents. Moreover, I incorporated two dummy variable assessing whether the respondent lived in a household led by a single mother or single father. Further, two dummy variables capture if the mother or father was working at the time of the interview. A set of two additional variables measure whether the parents were employed in white-collar jobs. Finally, an additional dichotomous variable measured if either parent received welfare payments at the time of the interview.

The third set of control variables includes measures of educational attainment and earnings, measured at Wave IV. The first of these controls is a dichotomous variable equal to 1 if the respondent is currently enrolled in school or equal to 0 otherwise. Vocational/technical training after high school is a dummy variable equal to 1 if respondents had completed some or had completed vocational/technical training after high school, or equal to 0 otherwise. Some college is a dummy variable equal to 1 if respondents had completed some college at the time of the interview, or equal to 0 otherwise. Completed college is a dummy variable equal to 1 if respondents had completed and graduated from college at the time of the interview, or equal to 0 otherwise. Graduate school is a dummy variable that is equal to 1 if respondents had completed some graduate school, a master's degree, and some graduate training beyond a master's degree, or equal to 0 otherwise. Advanced professional degree is a dummy variable equal to 1 if respondents had completed a doctoral degree or completed post-Baccalaureate professional education (e.g., law school, medical school), or equal to 0 otherwise. Lastly, I also control for annual earnings (I take the natural logarithm of the measure).

The fourth set of control variables includes health and lifestyle variables measured at Wave IV, which can impact individual health outcomes at Wave IV. Regular smoker is a dichotomous variable that is equal to 1 if individuals have smoked at least one cigarette every day in the past 30 days at the time of the interview, or equal to 0 otherwise. Marijuana user is a dichotomous variable that is equal to 1 if respondents have used marijuana at least once in the past 12 months at the time of the interview, or equal to 0 otherwise. In addition, I incorporated, a variable controlling for lifetime other drug use. Respondents were asked if in their lifetime, they had used any kind of the following drugs: cocaine, crystal meth, LSD, PCP, ecstacy, mushrooms, inhalents, ice, heroin, or prescription medicines not prescribed for them. A dummy variable was created, equal to 0 if the individual did not use any of these drugs in their lifetime, and equal to 1 if the individual did use any of these drugs in their lifetime. Weekly physical exercise was measured by a dummy variable assessing whether respondents partook in any of 34 different activities and sports in the past week. Moreover, I included a measure of the number of lifetime chronic conditions. This measure is a count of the following lifetime chronic conditions: asthma, cancer/leukemia, depression, hypertension, high cholesterol, and epilepsy/seizures. In the empirical models estimating the effect of self-perceived body development on depression outcomes, I include a count measure of lifetime chronic conditions without depression, in order to avoid tautology, i.e. predicting lifetime depression with lifetime depression. Finally, I incorporated measures of health insurance coverage. Employment-sponsored health insurance is a dummy variable equal to 1 if the respondents had health insurance coverage through their job, or equal to 0 otherwise. Other health insurance is a dichotomous variable equal to 1 if respondents had health insurance coverage through one of the following sources: parents' insurance, husband or wife's insurance, employment sponsored insurance, union insurance, school insurance, active duty military, private insurance, Medicaid, or Indian Health Service, or equal to 0 otherwise.

Chapter Eight: Results

8.1 Results for Women
8.1.1 Results for the core models
8.1.1.1 Self-rated health
8.1.1.1.1 Raw index

The first specification, in which the independent impact of the raw self-perceived body development index is regressed on self-rated health at Wave IV, yields the following results. As predicted by my hypothesis, self-perceived body development is a significant predictor of self-rated health and is negatively associated with it.

The estimated regression coefficient β_1 (self-perceived body development) is equal to -0.0159 ($p<0.01$) in Model 1, -0.0159 ($p<0.01$) in Model 2 ($p<0.01$), -0.0239 ($p<0.01$) in Model 3, -0.0256 ($p<0.01$) in Model 4, and -0.0139 ($p<0.05$) in Model 5.

The set of control variables African American, other race, residential mother white collar, residential father white collar, currently attending school, some college, completed college, regular smoker (past 30 days), and number of lifetime chronic conditions are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes. These results are presented in Table 2A on page 162. Because this is an ordered probit specification, the coefficients signify that a one-unit increase in self-perceived body development is negatively associated with self-rated health. However, the previous coefficients are not indicative of magnitude, only of directionality, and thus are difficult to interpret as is.

Therefore, in order to be able to be able to interpret the results, marginal effects were calculated, using the margins command in Stata 13 (2013). These are presented in Table 2A1 on page 164.The estimates from this analysis are based on Model 5, the most inclusive stacked model. Results from this analysis are interpreted as the change in the probability of belonging to each category of self-rated health, associated with a one-unit change in the self-perceived body development index. For poor self-rated health, the marginal effect dy/dx β_1 (SPBDI) is equal to 0.00020 ($p<0.05$). Therefore, a one-unit increase in the self-perceived body development index is associated with a 0.02 percentage point increase in the probability of reporting poor health; or an 0.18% increase in the probability of reporting poor health [(0.0002/0.110[2])*100]. For fair self-rated health, the marginal effect dy/dx β_1 (SPBDI) is equal to 0.00168 $p< 0.05$. Therefore, a one-unit increase in the self-perceived body development index is associated with a 0.016 percentage point increase in the probability of reporting fair health; or an 18.6% increase in the probability of reporting fair health [(0.0016/0.086[3])*100]. Regarding good self-rated health, the marginal effect dy/dx β_1 (SPBDI) is equal to -0.00355 ($p< 0.05$). Thus, a one-unit increase in self-perceived body development index is associated with a 0.036 percentage point increase in the probability of reporting good health; or a 10.71 % decrease in the probability of reporting good health [(0.0036/0.336[4])*100]. As regards to very good self-rated health, dy/dx β_1 (SPBDI) is equal to - 0.00208 ($p<0.05$). As such, a one-unit increase in self-perceived body development is associated with a 0.021 percentage point decrease in the probability of reporting very good health; or a 0.54 % decrease in the probability of

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[2] 0.110 represents the proportion of women who reported poor self-rated health at Wave IV.

[3] 0.086 represents the proportion of women who reported fair self-rated health at Wave IV.

[4] 0.336 represents the proportion of women who reported good self-rated health at Wave IV.

reporting good health [(0.0020/0.386[5])*100]. For excellent self-rated health, dy/dx β_1 (SPBDI) is equal to - 0.00335 ($p<0.05$). Therefore, a one-unit increase in self-perceived body development is associated with a 0.034 percentage point decrease in the probability of reporting excellent health; or a 1.89% decrease in the probability of reporting excellent health [(0.0034/0.180[6])*100].

Overall, these results and coefficients are consistent with my hypothesis, as they demonstrate that girls who have higher scores on the self-perceived development index have a lower probability than their counterparts at the center of the distribution of reporting excellent and good levels of health and with higher probabilities of reporting poor and fair levels of health.

8.1.1.1.2 Bottom and top quartiles

The second specification, in which the independent impact of belonging to the bottom and top quartiles of the self-perceived body development index distribution are regressed on self-rated health at Wave IV, yields the following results. As predicted by my hypothesis, self-perceived body development is a significant predictor of self-rated health and is negatively associated with it for all models in the top quartile and for one model in the bottom quartile.

The estimated regression coefficient β_1 (bottom quartile self-perceived body development) is equal to 0.0524 ($p<10$) in Model 3 and is only marginally significant in this model, indicating that women belonging to bottom quartile of the distribution might be more likely to report better levels of health. However, all coefficients belonging to the

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[5] 0.386 represents the proportion of women who reported very good self-rated health at Wave IV.

[6] 0.180 represents the proportion of women who reported excellent self-rated health at Wave IV.

top quartile of the distribution are negatively and statistically significantly associated with self-rated health. The coefficient β_2 (top quartile self-perceived body development) is equal to -0.157 ($p<0.01$) in Model 1, -0.158 ($p<0.01$) in Model 2 ($p<0.01$), -0.149 ($p<0.01$) in Model 3, -0.140 ($p<0.05$) in Model 4 , and -0.0953 ($p<0.05$) in Model 5. The set of control variables African American, other race, residential father white collar, currently attending school, some college, completed college, regular smoker (past 30 days), and number of lifetime chronic conditions are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes. These results are presented in Table 2B on page 165. Because this is an ordered probit specification, the coefficients signify that belonging to the top quartile of the self-perceived body development index is negatively associated with self-rated health. However, the previous coefficients are not indicative of magnitude, only of directionality, and thus cannot be easily interpreted. Therefore, marginal effects were calculated, using the margins command in Stata 13 (2013), and these are presented in Table 2B1 on page 167.

The estimates from this analysis are based on Model 5, the most inclusive stacked model. Results from this analysis are interpreted as the change in the probability of belonging to each category of self-rated health. For poor self-rated health, the marginal effect dy/dx β_2 (TQSPBDI) is equal to 0.00152 ($p<0.10$). Therefore, belonging to the top quartile of the self-perceived body development index is associated with a 0.00152 percentage point increase in the probability of reporting poor health; or a 13.80% increase in the probability of reporting poor health [(0.00152/0.110)*100]. For fair self-rated health, the marginal effect dy/dx β_2 (TQSPBDI) is equal to 0.0120 ($p< 0.10$). Therefore, belonging to the top quartile of the self-perceived body development index is associated with a 0.0120 percentage point increase in the probability of reporting fair health; or an 13.6% increase in the probability of reporting fair health [(0.0120/0.086)*100]. Regarding good self-rated health, the marginal effect dy/dx β_2 (TQSPBDI) is equal to -0.00239 ($p< 0.05$). Thus, belonging to the top quartile of the self-perceived body development index is associated with a 0.0239 percentage point increase in the probability of reporting good health; or a 7.11 % decrease in the probability of reporting good health [(0.0239/0.336)*100]. Finally, for excellent self-rated health dy/dx β_2 (TQSPBDI) is equal to -0.00223 ($p<0.05$), indicating that belonging to the top quartile of self-perceived body development index distribution is associated with a 0.22 percentage point decrease in the probability of reporting excellent health or a 1.22% decrease in the probability of reporting excellent health [(0.0022/0.180)*100].

Overall, these coefficients are consistent with my hypothesis, as they indicate that girls belonging to the bottom and top quartiles of the self-perceived development index index distribution are less likely than their counterparts in the interquartile range to report excellent and very good levels of health and more likely to report poor, fair, and good levels of health.

8.1.1.1.3 Bottom and top deciles

The third specification, in which the independent impact of belonging to the bottom and top deciles of the self-perceived body development index distribution are regressed on self-rated health at Wave IV, yields the following results -presented in Table 2C on page 168. As predicted by my hypothesis, belonging to the bottom and top tails of the self-perceived body development distribution is a significant predictor of self-rated health.

Indeed, being at the extremes of the distribution is negatively associated with self-rated health in all models pertaining to the top decile and in three models belonging to the bottom decile.

The estimated regression coefficient β_1 (bottom decile self-perceived body development) is equal to -0.103 ($p<0.01$) in Model 1, equal to -0.099 ($p<0.05$) in Model 2, and equal to -0.083 ($p<0.10$) in Model 5 indicating that women belonging to bottom 5th percentile of the distribution might be less likely than their counterparts at the center of top of the distribution to report better levels of health. However, all 5 coefficients belonging to the top decile of the distribution are negatively and statistically significantly associated with self-rated health. The coefficient β_1 (top decile self-perceived body development) is equal to -0. 185 ($p<0.01$) in Model 1, -0.184 ($p<0.01$) in Model 2, -0.169 ($p<0.01$) in Model 3, - 0.192 ($p<0.01$) in Model 4, and equal to -0.148 ($p<0.01$) in Model 5. The set of control variables African American, other race, born in the U.S., residential father white collar, currently attending school, some college, completed college, regular smoker (past 30 days), marijuana smoker (past year), lifetime other drug use, employment sponsored health insurance, other health insurance, number of lifetime chronic conditions, and weekly physical activity are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

Since this is an ordered probit specification, the coefficients signify that belonging to the top and bottom deciles of the self-perceived body development index is negatively associated with self-rated health. The previous coefficients, however, are not indicative of magnitude, only of directionality, and thus cannot be easily interpreted.

Therefore, to remedy this issue, marginal effects were calculated using the margins command in Stata 13 (2013). These effects are presented in Table 2C1 on page 170.

The estimates from this analysis are based on Model 5, the most inclusive stacked model. Results from this analysis are interpreted as the change in the probability of belonging to each category of self-rated health. In this analysis, the coefficients belonging to the bottom decile of self-perceived body development index distribution are significant, yet marginally so. For poor self-rated health, the marginal effect dy/dx β_1 (D1PSPBDI) is equal to 0.00125 ($p<0.10$). Therefore, belonging to the bottom decile of the self-perceived body development index is associated with a 0.00125 percentage point increase in the probability of reporting poor health; or a 11.36% increase in the probability of reporting poor health [(0.00125/0.110)*100]. For fair self-rated health, the marginal effect dy/dx β_1 (D1PSPBDI) is equal to 0.0105 ($p<0.10$). Therefore, belonging to the bottom decile of the self-perceived body development index is associated with a 0.0105 percentage point increase in the probability of reporting poor health; or a 12.21% increase in the probability of reporting poor health [(0.0105/0.086)*100]. For good self-rated health, the marginal effect dy/dx β_1 (D1SPBDI) is equal to 0.0208 ($p<0.10$). Therefore, belonging to the bottom decile of the self-perceived body development index is associated with a 0.0208 percentage point increase in the probability of reporting poor health; or a 6.19% increase in the probability of reporting poor health [(0.0208/0.336)*100]. For very good self-rated health, the marginal effect dy/dx β_1 (D1SPBDI) is equal to -0.0120 ($p<0.10$). Therefore, belonging to the bottom decile of the self-perceived body development index is associated with a 0.0120 percentage point decrease in the probability of reporting poor health; or a 3.11% increase in the probability of reporting very good health [(-0.0120/0.386)*100]. For excellent self-rated health, the marginal effect dy/dx β_1 (D1SPBDI) is equal to -0.0205 ($p<0.10$). Therefore, belonging to the bottom decile of the self-perceived body development index is associated with a 0.0205 percentage point decrease in the probability of reporting poor health; or a 11.39% increase in the probability of reporting poor health [(-0.0205 /0.180)*100]. At the top decile, all coefficients are significantly associated with the probability of belonging to each self-rated health category. For poor self-rated health, the marginal effect dy/dx β_1 (D10PSPBDI) is equal to 0.00240 ($p<0.05$). Therefore, belonging to the top quartile of the self-perceived body development index is associated with a 0.00240 percentage point increase in the probability of reporting poor health; or a 2.18% increase in the probability of reporting poor health [(0.00240/0.110)*100]. For fair self-rated health, the marginal effect dy/dx β_1 (D10PSPBDI) is equal to 0.0194 ($p<0.05$). Therefore, belonging to the top decile of the self-perceived body development index is associated with a 0.0341 percentage point increase in the probability of reporting fair health; or a 22.56% increase in the probability of reporting fair health [(0.0194/0.086)*100]. Regarding good self-rated health, the marginal effect dy/dx β_2 (TD10SPBDI) is equal to 0.0365 ($p<0.01$). Thus, belonging to the top decile of the self-perceived body development index is associated with a 0.0356 percentage point increase in the probability of reporting good health; or a 10.60 % decrease in the probability of reporting good health [(0.0356/0.336)*100]. Finally, for excellent self-rated health dy/dx β_2 (D10PSPBDI) is equal to -0.0355 ($p<0.01$), indicating that belonging to the top decile of self-perceived body development index distribution is associated with a 0.0355 percentage point decrease in the probability of reporting excellent health or a 19.72% decrease in the probability of reporting excellent health [(0.0355/0.180)*100].

Overall, these coefficients are in accordance with my hypothesis, as they indicate that belonging to the bottom and top deciles- but most notably those belonging to the top decile- of the self-perceived development index distribution is associated with a lower probability of reporting excellent and very good levels of health and with higher probabilities of reporting poor, fair, and good levels of health.

8.1.1.1.4 Bottom and top 5th percentiles

The fourth specification, in which the independent impact of belonging to the bottom and top 5th percentiles of the self-perceived body development index distribution are regressed on self-rated health at Wave IV, yield the following results. As predicted by my hypothesis, self-perceived body development is a significant predictor of self-rated health and is negatively associated with it in four models in the top 5th percentile and for two models in the bottom 5th percentile, although the latter results are only marginally significant.

The estimated regression coefficient β_1 (bottom 5th percentile self-perceived body development) is equal to -0.108 ($p<10$) in Model 1 and equal to -0.109 ($p<0.10$) in Model 2, indicating that women belonging to bottom 5th percentile of the distribution might be less likely than their counterparts at the center of top of the distribution to report better levels of health. However, four coefficients belonging to the top quartile of the distribution are negatively and statistically significantly associated with self-rated health. The coefficient β_2 (top 5th percentile self-perceived body development) is equal to -

0.201 ($p<0.05$) in Model 1, -0.220 ($p<0.01$) in Model 2, -0.220 ($p<0.05$) in Model 3, and -0.234 ($p<0.05$) in Model 4 . The set of control variables African American, other race, born in the U.S., residential mother white collar, residential father white collar, currently attending school, some college, completed college, regular smoker (past 30 days), marijuana smoker (past year), lifetime other drug use, other health insurance, number of lifetime chronic conditions, and weekly physical activity are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes. These results are presented in Table 2D on page 171. Since this approach is estimated with an ordered probit function, the coefficients signify that belonging to the top 5th percentile of the self-perceived body development index is negatively associated with self-rated health. However, the previous coefficients are not indicative of magnitude, only of directionality, and thus cannot be easily interpreted. Therefore, marginal effects were calculated, using the margins command in Stata 13 (2013), and these are presented in Table 2D1 on page 173.

The estimates from this analysis are based on Model 5, the most inclusive stacked model. Results from this analysis are interpreted as the change in the probability of belonging to each category of self-rated health. In this analysis, none of the coefficients belonging to the bottom 5th percentile of self-perceived body development index distribution are statistically significant. At the top 5th percentile, all coefficients are significantly associated with the probability of belonging to each self-rated health category. For poor self-rated health, the marginal effect dy/dx β_2 (T5PSPBDI) is equal to 0.00592 ($p<0.05$). Therefore, belonging to the top quartile of the self-perceived body development index is associated with a 0.00592 percentage point increase in the probability of reporting poor health; or a 5.38% increase in the probability of reporting poor health [(0.00592/0.110)*100]. For fair self-rated health, the marginal effect dy/dx β_2 (T5PSPBDI) is equal to 0.0341 ($p<0.05$). Therefore, belonging to the top 5th percentile of the self-perceived body development index is associated with a 0.0341 percentage point increase in the probability of reporting fair health; or a 39.65% increase in the probability of reporting fair health [(0.0341/0.086)*100]. Regarding good self-rated health, the marginal effect dy/dx β_2 (T5PSPBDI) is equal to 0.0526 ($p<0.01$). Thus, belonging to the top 5th percentile of the self-perceived body development index is associated with a 0.0526 percentage point increase in the probability of reporting good health; or a 15.65 % decrease in the probability of reporting good health [(0.052/0.336)*100]. Finally, for excellent self-rated health dy/dx β_2 (T5PSPBDI) is equal to -0.0561 ($p<0.01$), indicating that belonging to the top 5th percentile of self-perceived body development index distribution is associated with a 0.0561 percentage point decrease in the probability of reporting excellent health or a 31.17% decrease in the probability of reporting excellent health [(0.0561/0.180)*100].

Overall, these previous coefficients and marginal effects are in accordance with my hypothesis, as they indicate that girls belonging to the top 5th percentile of the self-perceived development index distribution have a lower probability than their counterparts at the center of the distribution of reporting excellent and very good levels. Also, girls belonging to the top 5th percentiles of the self-perceived body development index distribution have a higher probability than their counterparts at the center of the distribution of reporting poor, fair, and good levels of health.

8.1.1.2 Occurrence of lifetime depression diagnosis

8.1.1.2.1 Raw index

The first specification, in which the independent impact of the raw self-perceived body development index is regressed on the occurrence of lifetime depression diagnosis at Wave IV, yields the following results. As predicted by my hypothesis, self-perceived body development is a significant predictor of occurrence of lifetime depression diagnosis at Wave IV.

The estimated regression coefficient β_1 (self-perceived body development)$_I$ is equal to 0.003 ($p<0.01$) in Model 1, -0.0290 ($p<0.01$) in Model 2 ($p<0.01$), -0.0297 ($p<0.01$) in Model 3, -0.0305 ($p<0.01$) in Model 4, and 0.0147 ($p<0.01$) in Model 5. These results are presented in Table 3A on page 174. Because this is a probit specification, the coefficients signify that a one-unit increase in self-perceived body development is negatively associated with occurrence of lifetime depression diagnosis. However, the previous coefficients are not indicative of magnitude, only of directionality, and thus are difficult to interpret as is. Therefore, marginal effects were calculated, using the margins command in Stata 13 (2013), and these are presented in brackets below the coefficient in Table 3A one page 174.

Results from the marginal effects analyses are interpreted as the change in the probability of lifetime depression diagnosis. In Model 1, the marginal effect dy/dx β_1 (SPBDI) is equal to 0.0102 ($p<0.01$). This marginal effect signifies that a one-unit increase in the self-perceived body development index is associated with a 0.0102 percentage point increase in the probability of lifetime depression diagnosis, or a

4.32% [(0.0102/0.236[7])*100] increase in the probability of lifetime depression diagnosis. In Model 2, the marginal effect dy/dx β_1 (SPBDI) is equal to 0.00883 ($p<0.01$). This marginal effect signifies that a one-unit increase in the self-perceived body development index is associated with a 0.00883 percentage point increase in the probability of lifetime depression diagnosis, or a 3.74% [(0.00883/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 3, the marginal effect dy/dx β_1 (SPBDI) is equal to 0.00899 ($p<0.01$). This marginal effect signifies that a one-unit increase in the self-perceived body development index is associated with a 0.00899 percentage point increase in the probability of lifetime depression diagnosis, or a 3.81% [(0.00899/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 4, the marginal effect dy/dx β_1 (SPBDI) is equal to 0.0091 ($p<0.01$). This marginal effect signifies that a one-unit increase in the self-perceived body development index is associated with a 0.0091 percentage point increase in the probability of lifetime depression diagnosis, or a 3.86% [(0.0091/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 5, the marginal effect dy/dx β_1 (SPBDI) is equal to 0.0043 ($p<0.05$). This marginal effect signifies that a one-unit increase in the self-perceived body development index is associated with a 0.0043 percentage point increase in the probability of lifetime depression diagnosis, or a 1.82% [(0.0043/0.236)*100] increase in the probability of lifetime depression diagnosis.

The set of control variables Hispanic ethnicity, African American, oldest child, ever married, completed college, regular smoker (past 30 days), lifetime other drug

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[7] 0.236 represents the proportion of women who have been diagnosed with depression during their lifetime, measured at Wave IV.

use, number of lifetime chronic conditions, and weekly physical activity are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

Overall, the previous coefficients and marginal effects are consistent with my hypothesis, as they indicate that girls with higher scores on the self-perceived development index at Wave I have a greater probability than their counterparts with lower scores on the self-perceived body development index of ever having been diagnosed with depression at Wave IV.

8.1.1.2.2 Bottom and top quartiles

The second specification, in which the independent impact of belonging to the bottom and top quartiles of the self-perceived body development index is regressed on the occurrence of lifetime depression diagnosis at Wave IV, yields the following results. As predicted by my hypothesis, belonging to the top and bottom quartiles of the self-perceived body development index distribution is a significant predictor of occurrence of lifetime depression diagnosis at Wave IV. An interesting trend emerges for girls at the bottom quartile of the distribution, as this group appears to be associated with lower probabilities of depression diagnosis.

At the bottom quartile of the self-perceived body development index distribution, the estimated regression coefficient β_1 (bottom quartile self-perceived body development)$_i$ is equal to -0.0738 ($p<0.05$) in Model 1, -0.0424 in Model 2, -0.0799 ($p<0.10$) in Model 3, -0.0907 ($p<0.05$) in Model 4, and -0.0315 in Model 5. These results are presented in Table 3B on page 176. Because this is a probit specification, the coefficients signify that belonging to the bottom quartile of the self-perceived body development index distribution is negatively associated with occurrence of lifetime depression diagnosis. However, the previous coefficients are not indicative of magnitude, only of directionality, and thus are difficult to interpret as is. Therefore, marginal effects were calculated, using the margins command in Stata 13 (2013), and these are presented in brackets below the coefficient in Table 3B one page 176.

Results from the marginal effects analyses are interpreted as the change in the probability of lifetime depression diagnosis. In Model 1, the marginal effect dy/dx β_1 (BQSPBDI) is equal to -0.0224 ($p<0.05$). This coefficient signifies that belonging to the bottom quartile of the self-perceived body development index is associated with a 0.0224 percentage point decrease in the probability of lifetime depression diagnosis, or a 9.49% [(0.0224/0.236)*100] decrease in the probability of lifetime depression diagnosis. In Model 2, the marginal effect dy/dx β_1 (BQSPBDI) is not statistically significant. In Model 3, the marginal effect dy/dx β_1 (BQSPBDI) is equal to -0.0238 ($p<0.05$). This marginal effect signifies that belonging to the bottom quartile of the self-perceived body development index distribution is associated with a 0.0907 percentage point decrease in the probability of lifetime depression diagnosis, or a 10.08% [(-0.0238/0.236)*100] decrease in the probability of lifetime depression diagnosis. In Model 4, the marginal effect dy/dx β_1 (BQSPBDI) is equal to -0.0268 ($p<0.05$). This marginal effect signifies that belonging to the bottom quartile of the self-perceived body development index distribution is associated with a 0.0268 percentage point decrease in the probability of lifetime depression diagnosis, or a 11.36% [(0.0268/0.236)*100] increase in the probability of lifetime depression diagnosis. With regard to Model 5, the marginal effect is not statistically significant.

At the top quartile of the self-perceived body development index distribution, the estimated regression coefficient β_2 (top quartile self-perceived body development)$_i$ is equal to 0.203 ($p<0.01$) in Model 1, 0.215 in Model 2 ($p<0.01$), 0.183 ($p<0.01$) in Model 3, 0.177 ($p<0.01$) in Model 4, and 0.144 ($p<0.01$) in Model 5. These results are presented in Table 3B on page 176. Because this is a probit specification, the coefficients signify that belonging to the top quartile of the self-perceived body development index distribution is positively associated with occurrence of lifetime depression diagnosis. However, the previous coefficients are not indicative of magnitude, only of directionality, and thus are difficult to interpret as is. Therefore, marginal effects are calculated, using the margins command in Stata 13 (2013), and these are presented in brackets below the coefficient in Table 3B one page 176.

Results from the marginal effects analyses are interpreted as the change in the probability of lifetime depression diagnosis. In Model 1, the marginal effect dy/dx β_2 (TQSPBDI) is equal to 0.0655 ($p<0.01$). This marginal effect signifies that belonging to the top quartile of the self-perceived body development index is associated with a 0.0655 percentage point increase in the probability of lifetime depression diagnosis, or a 27.54% [(0.0655/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 2, the marginal effect dy/dx β_2 (TQSPBDI) is equal to 0.0690 ($p<0.01$). This marginal effect indicates that belonging to the top quartile of the self-perceived body development index is associated with a 0.0690 percentage point increase in the probability of lifetime depression diagnosis, or a 29.24% [(0.0690/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 3, the marginal effect dy/dx β_2 (TQSPBDI) is equal to 0.0579 ($p<0.01$). This marginal effect signifies that belonging to the top quartile of the self-perceived body development index distribution is associated with a 0.0579 percentage point increase in the probability of lifetime depression diagnosis, or a 24.53% [(0.0579/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 4, the marginal effect dy/dx β_2 (TQSPBDI) is equal to 0.0553 ($p<0.01$). This marginal effect signifies that belonging to the top quartile of the self-perceived body development index distribution is associated with a 0.0553 percentage point increase in the probability of lifetime depression diagnosis, or a 23.43% [(0.0553/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 5, the marginal effect dy/dx β_2 (TQSPBDI) is equal to 0.0432 ($p<0.05$). This marginal effect indicates that belonging to the top quartile of the self-perceived body development index distribution is associated with a 0.0432 percentage point increase in the probability of lifetime depression diagnosis, or a 18.31% [(0.0432/0.236)*100] increase in the probability of lifetime depression diagnosis.

The set of control variables Hispanic ethnicity, African American, ever married, annual earnings, regular smoker (past 30 days), lifetime other drug use, number of lifetime chronic conditions, employment-sponsored health insurance, and weekly physical activity are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

Remarkably, results emanating from this analysis demonstrate that in Models 1, 3,and 4; girls belonging to the bottom quartile of the self-perceived body development distribution are less likely than their counterparts at the center of the distribution to be diagnosed with depression during their lifetime, which is a notable trend. Overall, the sign and magnitude of the coefficients belonging to the top quartile of the self-perceived body development distribution are consistent with my hypothesis, as they indicate that girls belonging to the top quartile of the self-perceived body development index distribution are more likely than their counterparts in the interquartile range to be diagnosed with depression during their lifetime.

8.1.1.2.3 Bottom and top deciles

The third specification, in which the independent impact of belonging to the bottom and top deciles of the self-perceived body development index is regressed on the occurrence of lifetime depression diagnosis at Wave IV, yields the following results. As predicted by my hypothesis, belonging to the top and bottom deciles of the self-perceived body development index distribution is a significant predictor of occurrence of lifetime depression diagnosis at Wave IV. As such, girls belonging to both groups appear to have a greater probability of lifetime depression diagnosis at Wave IV.

At the bottom decile of the self-perceived body development index distribution, the estimated regression coefficient β_1 (bottom decile self-perceived body development) is equal to 0.140 ($p<0.05$) in Model 1, 0.182 ($p<0.01$) in Model 2, 0.179 ($p<0.01$) in Model 3, 0.150 ($p<0.01$) in Model 4, and 0.233 ($p<0.01$) in Model 5. These results are presented in Table 3C on page 178. Because this is a probit specification, the coefficients signify that belonging to the bottom decile of the self-perceived body development index distribution is positively associated with the occurrence of lifetime depression diagnosis. However, the previous coefficients are not indicative of magnitude, only of directionality, and thus are difficult to interpret as is. Therefore, marginal effects are calculated, using the margins command in Stata 13 (2013). These are presented in brackets below the raw coefficient, in Table 3C one page 178.

Results from the marginal effects analyses are interpreted as the change in the probability of lifetime depression diagnosis. In Model 1, the marginal effect dy/dx β_1 (D1SPBDI) is equal to 0.0393 ($p<0.05$). This marginal effect signifies that belonging to the bottom decile of the self-perceived body development index is associated with a 0.0393 percentage point increase in the probability of lifetime depression diagnosis, or a 16.65% [(0.0393/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 2, the marginal effect dy/dx β_1 (D1SPBDI) is equal to 0.0511 ($p<0.01$). This marginal effect signifies that belonging to the bottom decile of the self-perceived body development index is associated with a 0.0511 percentage point increase in the probability of lifetime depression diagnosis, or a 21.65% [(0.0511/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 3, the marginal effect dy/dx β_1 (D1SPBDI) is equal to 0.0499 ($p<0.01$). This marginal effect signifies that belonging to the bottom decile of the self-perceived body development index distribution is associated with a 0.0499 percentage point increase in the probability of lifetime depression diagnosis, or a 21.14% [(0.0499/0.236)*100] decrease in the probability of lifetime depression diagnosis. In Model 4, the marginal effect dy/dx β_1 (D1SPBDI) is equal to 0.0407 ($p<0.05$). This marginal effect signifies that belonging to the bottom decile of the self-perceived body development index distribution is associated with a 0.0407 percentage point increase in the probability of lifetime depression diagnosis, or a 17.25% [(0.0407/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 5, the marginal effect dy/dx β_1 (D1SPBDI) is equal to 0.0629 ($p<0.01$). This marginal effect signifies that belonging to the bottom decile of the self-perceived body development index distribution is associated with a 0.0629 percentage point increase in the probability of lifetime depression diagnosis, or a 26.65% [(0.0629/0.236)*100] increase in the probability of lifetime depression diagnosis.

At the top decile of the self-perceived body development index distribution, the estimated regression coefficient β_2 (D10SPBDI) is equal to 0.414 ($p<0.01$) in Model 1, 0.418 in Model 2 ($p<0.01$), 0.372 ($p<0.01$) in Model 3, 0.359 ($p<0.01$) in Model 4, and 0.349 ($p<0.01$) in Model 5. These results are presented in Table 3C on page 178. Because this is a probit specification, the coefficients signify that belonging to the top decile of the self-perceived body development index distribution is positively associated with occurrence of lifetime depression diagnosis. However, the previous coefficients are not indicative of magnitude, only of directionality, and thus are difficult to interpret as is. Therefore, marginal effects are calculated, using the margins command in Stata 13 (2013), and these are presented in brackets below the coefficient in Table 3C on page 178.

Results from the marginal effects analyses are interpreted as the change in the probability lifetime depression diagnosis. In Model 1, the marginal effect dy/dx β_2 (D10SPBDI) is equal to 0.127 ($p<0.01$). This marginal effect signifies that belonging to the top decile of the self-perceived body development index is associated with a 0.127 percentage point increase in the probability of lifetime depression diagnosis, or a 53.81% [(0.127/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 2, the marginal effect dy/dx β_2 (D10SPBDI) is equal to 0.127 ($p<0.01$). This marginal effect signifies that belonging to the top decile of the self-perceived body development index is associated with a 0.127 percentage point increase in the probability of lifetime depression diagnosis, or a 53.81% [(0.127/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 3, the marginal effect dy/dx β_2 (D10SPBDI) is equal to 0.111 ($p<0.01$). This marginal effect signifies that belonging to the top decile of the self-perceived body development index distribution is associated with a 0.111 percentage point increase in the probability of lifetime depression diagnosis, or a 47.03% [(0.111/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 4, the marginal effect dy/dx β_2 (D10SPBDI) is equal to 0.105 ($p<0.01$). This marginal effect signifies that belonging to the top decile of the self-perceived body development index distribution is associated with a 0.105 percentage point increase in the probability of lifetime depression diagnosis, or a 44.49% [(0.105/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 5, the marginal effect dy/dx β_2 (D10SPBDI) is equal to 0.0987 ($p<0.01$). This marginal effect signifies that belonging to the top decile of the self-perceived body development index distribution is associated with a 0.0987 percentage point increase in the probability of lifetime depression diagnosis, or a 41.82% [(0.0987/0.236)*100] increase in the probability of lifetime depression diagnosis.

The set of control variables Hispanic ethnicity, African American, other race, ever married, currently attending school, annual earnings, MAOA high transcription allele, regular smoker (past 30 days), lifetime other drug use, lifetime chronic conditions, employment-sponsored health insurance, and weekly physical activity are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

Overall, the sign and magnitude of the coefficients belonging to the top and bottom deciles of the self-perceived body development distribution are consistent with my hypothesis, as they indicate that girls belonging to the tails of the distribution of the self-perceived body development index distribution are more likely to be diagnosed with depression during their lifetime.

8.1.1.2.4 Bottom and top 5th percentiles

The fourth specification, in which the independent impact of belonging to the bottom and top 5th percentiles of the self-perceived body development index is regressed on the occurrence of lifetime depression diagnosis at Wave IV, yields the following results. As predicted by my hypothesis, belonging to the top and bottom 5th percentiles of the self-perceived body development index distribution is a significant predictor of occurrence of lifetime depression diagnosis at Wave IV. As such, girls belonging to both tails of the distribution appear to have a higher probability of lifetime depression diagnosis at Wave IV.

At the bottom 5th percentile of the self-perceived body development index distribution, the estimated regression coefficient β_1 (bottom 5th percentile self-perceived body development) is equal to 0.147 ($p<0.05$) in Model 1, 0.209 ($p<0.01$) in Model 2, 0.203 ($p<0.01$) in Model 3, 0.168 ($p<0.05$) in Model 4, and 0.266 ($p<0.01$) in Model 5. These results are presented in Table 3D on page 180. Because this is a probit specification, the coefficients signify that belonging to the bottom 5th percentile of the self-perceived body development index distribution is positively associated with the occurrence of lifetime depression diagnosis. However, the previous coefficients are not indicative of magnitude, only of directionality, and thus are difficult to interpret as is. Therefore, marginal effects are calculated, using the margins command in Stata 13 (2013). These are presented in brackets below the raw coefficient, in Table 3D on page 180.

Results from the marginal effects analyses are interpreted as the change in the probability of lifetime depression diagnosis. In Model 1, the marginal effect dy/dx β_1 (B5PSPBDI) is equal to 0.0415 ($p<0.10$). This marginal effect mean that belonging to the bottom 5th percentile of the self-perceived body development index is associated with a 0.0415 percentage point increase in the probability of lifetime depression diagnosis, or a 17.58% [(0.0415/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 2, the marginal effect dy/dx β_1 (B5PSPBDI) is equal to 0.0596 ($p<0.05$). This marginal effect signifies that belonging to the bottom 5th percentile of the self-perceived body development index is associated with a 0.0596 percentage point increase in the probability of lifetime depression diagnosis, or a 25.25% [(0.0596/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 3, the marginal effect dy/dx β_1 (B5PSPBDI) is equal to 0.0572 ($p<0.01$). This marginal effect signifies that belonging to the bottom 5th percentile of the self-perceived body development index distribution is associated with a 0.0572 percentage point increase in the probability of lifetime depression diagnosis, or a 24.24% [(0.0572/0.236)*100] decrease in the probability of lifetime depression diagnosis. In Model 4, the marginal effect dy/dx β_1 (B5PSPBDI) is equal to 0.0463

($p<0.05$). This marginal effect signifies that belonging to the bottom 5th percentile of the self-perceived body development index distribution is associated with a 0.0463 percentage point increase in the probability of lifetime depression diagnosis, or a 19.62% [(0.0463/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 5, the marginal effect dy/dx β_1 (B5PSPBDI) is equal to 0.0732 ($p<0.01$). This marginal effect signifies that belonging to the bottom 5th percentile of the self-perceived body development index distribution is associated with a 0.0732 percentage point increase in the probability of lifetime depression diagnosis, or a 31.02% [(0.0732/0.236)*100] increase in the probability of lifetime depression diagnosis.

At the top 5th percentile of the self-perceived body development index distribution, the estimated regression coefficient β_2 (top 5th percentile self-perceived body development) is equal to 0.516 ($p<0.01$) in Model 1, 0.538 in Model 2 ($p<0.01$), 0.514 ($p<0.01$) in Model 3, 0.496 ($p<0.01$) in Model 4, and 0.458 ($p<0.01$) in Model 5. These results are presented in Table 3D on page 180. Because this is a probit specification, the coefficients signify that belonging to the top quartile of the self-perceived body development index distribution is positively associated with occurrence of lifetime depression diagnosis. However, the previous coefficients are not indicative of magnitude, only of directionality, and thus are difficult to interpret as is. Therefore, marginal effects are calculated, using the margins command in Stata 13 (2013), and these are presented in brackets below the coefficient in Table 3D on page 180.

Results from the marginal effects analyses are interpreted as the change in the probability of lifetime depression diagnosis. In Model 1, the marginal effect dy/dx β_2

(T5PSPBDI) is equal to 0.165 ($p<0.01$). This marginal effect signifies that belonging to the top 5th percentile of the self-perceived body development index is associated with a 0.165 percentage point increase in the probability of lifetime depression diagnosis, or a 69.92% [(0.165/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 2, the marginal effect dy/dx β_2 (T5PSPBDI) is equal to 0.172 ($p<0.01$). This marginal effect signifies that belonging to the top 5th percentile of the self-perceived body development index is associated with a 0.172 percentage point increase in the probability of lifetime depression diagnosis, or a 72.88% [(0.172/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 3, the marginal effect dy/dx β_2 (T5PSPBDI) is equal to 0.162 ($p<0.01$). This marginal effect signifies that belonging to the top 5th percentile of the self-perceived body development index distribution is associated with a 0.162 percentage point increase in the probability of lifetime depression diagnosis, or a 68.64% [(0.162/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 4, the marginal effect dy/dx β_2 (T5PSPBDI) is equal to 0.162 ($p<0.01$). This marginal effect signifies that belonging to the top 5th percentile of the self-perceived body development index distribution is associated with a 0.162 percentage point increase in the probability of lifetime depression diagnosis, or a 68.64% [(0.162/0.236)*100] increase in the probability of lifetime depression diagnosis. In Model 5, the marginal effect dy/dx β_2 (T5PSPBDI) is equal to 0.136 ($p<0.01$). This marginal effect signifies that belonging to the top 5th percentile of the self-perceived body development index distribution is associated with a 0.136 percentage point increase in the probability of lifetime depression diagnosis, or a 57.63% [(0.136/0.236)*100] increase in the probability of lifetime depression diagnosis.

The set of control variables Hispanic ethnicity, African American, ever married, currently attending school, completed college, annual earnings, MAOA high transcription allele, regular smoker (past 30 days), lifetime other drug use, number of lifetime chronic conditions, employment-sponsored health insurance, and weekly physical activity are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

Overall, the sign and magnitude of the coefficients and marginal effects belonging to the top and bottom 5^{th} percentiles of the self-perceived body development distribution are consistent with my hypothesis, as they indicate that girls belonging to the extremes tails of the distribution of the self-perceived body development index distribution are more likely than their counterparts at the center of the distribution to have been diagnosed with depression during their lifetime.

8.1.1.3 CES-D depression scale

8.1.1.3.1 Raw index

The first specification- estimated with ordered probit regression- in which the independent impact of the raw self-perceived body development index is regressed on the CES-D depression scale at Wave IV, yields the following results, presented in Table 3E on page 182. Contrary to my hypothesis, self-perceived body development does not positively and significantly predict CES-D depression scores diagnosis at Wave IV. In Model 5, self-perceived body development is negatively associated with the CES-D depression scale scores and these coefficients are only marginally significant ($p<0.10$).

Models 1, 2, 3, and 4 yield results that are not statistically significant. In model 5, the estimated regression coefficient β_1 (self-perceived body development) is equal to -0.00894 (P<0.10). Because this is an ordered probit specification, this coefficient is interpreted as the probability of change in CES-D depression scores associated with a one-unit change in the self-perceived body development is negatively associated with CES-D depression scores. However, the previous coefficient is not interpretable in terms of magnitude, only of directionality.

The set of control variables African American, other race, ever married, vocational training, some college, completed college, marijuana user (past year), lifetime other drug use, number of lifetime chronic conditions, and employment-sponsored health insurance are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

Overall, this specification is not consistent with my hypothesis, as it indicates that a one-unit change in the index is associated with having significantly lower scores on the CES-D depression scale.

8.1.1.3.2 Bottom and top quartiles

The second specification, in which the independent impact of belonging to the bottom and top quartiles of the self-perceived body development index distribution regressed on the CES-D depression scale at Wave IV, yields different results, which are presented in Table 3F on page 184. Here, results support my hypothesis and self-perceived body development is a significant and positive predictor of CES-D depression scores at Wave IV. Indeed, this association is present in almost all models pertaining to the bottom and top quartiles of the self-perceived body development index distribution.

Belonging to the bottom quartile of the distribution is associated with the probability of greater scores on the scale. β_1 (BQSPBDI) is equal to 0.0808 ($p<0.01$) in Model 1, 0.122 ($p<0.01$) in Model 2, 0.0478 ($p<0.10$) in Model 3, and equal to 0.0686 in Model 5 ($p<0.05$). Model 4 does not yield statistically significant results. Because this is an ordered probit specification, this coefficient is interpreted as the probability of change in CES-D depression scores associated with belonging to the bottom quartile of the self-perceived body development index distribution. However, the previous coefficients are not interpretable in terms of magnitude, only of directionality. Thus, results from this analysis indicate that girls belonging to the bottom quartile of the self-perceived body development index distribution are more likely than their counterparts in the interquartile range to have higher scores on the CES-D depression scale.

Belonging to the top quartile of the self –perceived body development index distribution is also associated with a greater likelihood of having higher scores on the CES-D depression scale. β_2 (TQSPBDI) is equal to 0.104 ($p<0.01$) in Model 1, 0.111 ($p<0.05$) in Model 2, 0.0901 ($p<0.05$) in Model 3, and equal to 0.074 ($p<0.05$) in Model 4 ($p<0.05$). Model 5 does not yield statistically significant results. Because this is an ordered probit specification, the previous coefficients are interpreted as the probability of change in CES-D depression scores associated with belonging to the bottom quartile of the self-perceived body development index distribution. However, the previous coefficients are not interpretable in terms of magnitude, only of directionality. Thus, results from this analysis indicate that, in most models, girls belonging to the top of the self-perceived body development index distribution are more likely than their counterparts at the center of the distribution to report higher scores on the CES-D depression scale.

The set of control variables African American, vocational training, some college, completed college, marijuana user (past year), lifetime other drug use, number of lifetime chronic conditions, and employment-sponsored health insurance are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

Overall, the signs of the coefficients belonging to the analyses at the bottom and top quartiles of the self-perceived body development distribution are consistent with my hypothesis, as they indicate that girls belonging to the extremes tails of the distribution of the self-perceived body development index distribution are more likely than their counterparts in the interquartile range to have higher scores on the CES-D depression scale.

8.1.1.3.3 Bottom and top deciles

The third specification, in which the independent impact of belonging to the bottom and top deciles of the self-perceived body development index distribution regressed on the CES-D depression scale at Wave IV, yields the following results, which are presented in Table 3G on page 186. Here, results partially support my hypothesis; as belonging to the bottom decile of the perceived body development is a significant and positive predictor of CES-D depression scores at Wave IV, more so than belonging to the top decile.

Belonging to the bottom decile of the distribution is associated with the probability of having higher scores on the CES-D depression scale. β_1 (BDSPBDI) is equal to 0.139 ($p<0.01$) in Model 1, 0.121 ($p<0.01$) in Model 2, 0.106 ($p<0.10$) in Model 3, and equal to 0.0777 in Model 4 ($p<0.10$), and 0.128 in Model 5 ($p<0.01$). Because this is an ordered probit specification, the previous coefficients are interpreted as the probability of change in CES-D depression scores associated with belonging to the bottom decile of the self-perceived body development index distribution. However, the previous coefficients are not interpretable in terms of magnitude, only of directionality. Thus, results from this analysis indicate that girls belonging to the bottom decile of the self-perceived body development index distribution are more likely than their counterparts at the center of the distribution to have higher scores on the CES-D depression scale.

Belonging to the top decile of the self –perceived body development index distribution is also associated with a greater likelihood of having higher scores on the CES-D depression scale, yet only in Models 1 and 2. β_2 (TQSPBDI) is equal to 0.120 ($p<0.01$) in Model 1 and is equal to 0.110 ($p<0.05$) in Model 2. Models 3,4,and 5 do not yield statistically significant results. Because this is an ordered probit specification, the previous coefficients are interpreted as the probability of change in CES-D depression scores associated with belonging to the bottom quartile of the self-perceived body development index distribution. However, the previous coefficients are not interpretable in terms of magnitude, only of directionality. Thus, results from this analysis indicate that, in the first two models, girls belonging to the bottom decile of the self-perceived body development index distribution are more likely than their counterparts at the center for the distribution to have higher scores on the CES-D depression scale.

The set of control variables African American, vocational training, some college, completed college, marijuana user (past year), lifetime other drug use, number of lifetime chronic conditions, and employment-sponsored health insurance are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

Overall, the signs of the coefficients belonging to the analyses at the bottom and top deciles of the self-perceived body development distribution are partially consistent with my hypothesis, as they indicate that girls belonging to the extremes tails of the distribution of the self-perceived body development index are more likely than their counterparts in the center of the distribution to have higher scores on the CES-D depression scale. The previous effect is, by and large, more consistent and robust for girls belonging to the bottom tail of the distribution.

8.1.1.3.4 Bottom and top 5th percentiles

The fourth specification, in which the independent impact of belonging to the bottom and top 5th percentiles of the self-perceived body development index distribution regressed on the CES-D depression scale at Wave IV, yields the following results, which are presented in Table 3H on page 188. Similar to the previous specification, results partially support my hypothesis; as belonging to the bottom 5th percentile of the perceived body development is a significant and positive predictor of CES-D depression scores at Wave IV, more so than belonging to the top 5th percentile.

Belonging to the bottom 5th percentile of the distribution is associated with the probability of having higher scores on the CES-D depression scale. β_1 (B5PSPBDI) is equal to 0.200 ($p<0.01$) in Model 1, 0.181 ($p<0.01$) in Model 2, 0.165 ($p<0.01$) in Model

3, and equal to 0.0133 in Model 4 ($p<0.01$), and 0.196 in Model 5 ($p<0.01$). Because this is an ordered probit specification, the previous coefficients are interpreted as the probability of change in CES-D depression scores associated with belonging to the bottom 5th percentile of the self-perceived body development index distribution. However, the previous coefficients are not interpretable in terms of magnitude, only of directionality. Thus, results from this analysis indicate that girls belonging to the bottom 5th percentile of the self-perceived body development index distribution are more likely than their counterparts at the center of the distribution to have higher scores on the CES-D depression scale.

Belonging to the top 5th percentile of the self–perceived body development index distribution is also associated with a greater likelihood of having higher scores on the CES-D depression scale, yet only in Models 1 and 2. β_2 (T5PSPBDI) is equal to 0.129 ($p<0.10$) in Model 1 and is equal to 0.142 ($p<0.10$) in Model 2. Models 3,4, and 5 do not yield statistically significant results. Because this is an ordered probit specification, the coefficients are interpreted as the probability of change in CES-D depression scores associated with belonging to the bottom quartile of the self-perceived body development index distribution. However, the previous coefficients are not interpretable in terms of magnitude, only of directionality.

Thus, results from this analysis indicate that, in the first two 'stacked' models, girls belonging to the bottom 5th percentile of the self-perceived body development index distribution are more likely than their counterparts at the center for the distribution to report more elevated0 scores on the CES-D depression scale.

The set of control variables African American, vocational training, some college, completed college, marijuana user (past year), lifetime other drug use, number of lifetime chronic conditions, and employment-sponsored health insurance are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

All in all, the signs of the coefficients belonging to the analyses at the bottom and top 5th percentiles of the self-perceived body development distribution are partially consistent with my hypothesis, as they indicate that girls belonging to the extremes tails of the self-perceived body development index distribution are more likely than their counterparts in the interquartile range to have higher scores on the CES-D depression scale. The previous effect, however, is by and large more consistent and robust for girls belonging to the bottom of the distribution.

8.1.1.4 Occurrence of psychological or emotional counseling

8.1.1.4.1 Raw index

The first specification, in which the independent impact of the raw self-perceived body development index is regressed on the occurrence of past 12 months psychological or emotional counseling at Wave IV, yields the following results. As predicted by my hypothesis, self-perceived body development is a significant predictor of occurrence of lifetime depression diagnosis at Wave IV.

The estimated regression coefficient β_1 (self-perceived body development) is equal to 0.0281 ($p<0.01$) in Model 1, 0.0228 ($p<0.01$) in Model 2 ($p<0.01$), 0.0202 ($p<0.01$) in Model 3, 0.0267 ($p<0.01$) in Model 4, and 0.0217 ($p<0.01$) in Model 5. These results are presented in Table 4A on page 190. Because this is a probit specification, the previous coefficients signify that a one-unit increase in the self-perceived body development index negatively associated with occurrence of psychological or emotional counseling at Wave IV. However, the previous coefficients are not indicative of magnitude, only of directionality, and thus are difficult to interpret as is. Therefore, marginal effects were calculated, using the margins command in Stata 13 (2013). The marginal effects are presented in brackets below the coefficient in Table 4A on page 190.

Results from the marginal effects analyses are interpreted as the change in the probability of occurrence of psychological or emotional counseling. In Model 1, the marginal effect dy/dx β_1 (SPBDI) is equal to 0.00032 ($p<0.05$). This marginal effect signifies that a one-unit increase in the self-perceived body development index is associated with a 0.00032 percentage point increase in the probability psychological or emotional counseling, or a 0.26% [(0.00032/0.119[8])*100] increase in the probability of seeking psychological or mental health counseling in the past 12 months. In Model 2, the marginal effect dy/dx β_1 (SPBDI) is equal to 0.00033 ($p<0.05$). This marginal effect signifies that a one-unit increase in the self-perceived body development index is associated with a 0.00033 percentage point increase in the likelihood of seeking psychological or emotional counseling, or a 0.28% [(0.00033/0.119)*100] increase in the probability of seeking psychological or emotional counseling. In Model 3, the marginal effect dy/dx β_1 (SPBDI) is equal to 0.00041 ($p<0.01$). This marginal effect signifies that a one-unit increase in the self-perceived body development index is associated with a 0.00041 percentage point increase in the probability seeking

[8]0.119 represents the proportion of women who have sought psychological or emotional counseling in the past 12 months at Wave IV.

psychological or emotional counseling, or a 0.34% [(0.00041/0.119)*100] increase in the probability of seeking psychological or emotional counseling. In Model 4, the marginal effect dy/dx β_1 (SPBDI) is equal to 0.00046 ($p<0.01$). This marginal effect signifies that a one-unit increase in the self-perceived body development index is associated with a 0.00046 percentage point increase in the probability of seeking psychological or emotional counseling, or a 0.39% [(0.00046/0.119)*100] increase in the probability of seeking psychological or emotional counseling. In Model 5, the marginal effect dy/dx β_1 (SPBDI) is equal to 0.0025 ($p<0.05$). This marginal effect signifies that a one-unit increase in the self-perceived body development index is associated with a 0.0025 percentage point increase in the probability of seeking psychological or emotional counseling, or a 2.10% [(0.0025/0.119)*100] increase in the probability of seeking psychological or emotional counseling.

The set of control variables currently attending school, lifetime other drug use, lifetime number of chronic conditions, and other health insurance are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes

Summarily, the previous coefficients and marginal effects appear to be consistent with my hypothesis, as they indicate that girls with higher scores on the self-perceived development index at Wave I have a greater probability than their counterparts with lower scores on the self-perceived body development index of seeking psychological or emotional counseling in the past 12 months at Wave IV.

8.1.1.4.2 Bottom and top quartiles

The second specification, in which the independent impact of belonging to the bottom and top quartiles of the self-perceived body development index is regressed on the occurrence of past 12 months psychological or emotional counseling at Wave IV, yields the following results. Results from this analysis support my hypothesis, but only partially. Indeed, belonging to the bottom and top of the self-perceived body development index distribution is a significant predictor of occurrence past 12 months psychological or emotional counseling at Wave IV.

At the bottom quartile of the self-perceived body development index distribution, none of the coefficients associated with the self-perceived body development index are statistically significant.

At the top quartile of the self-perceived body development index distribution, the estimated regression coefficient β_2 (BQSPBDI) is equal to 0.138 ($p<0.01$) in Model 1, 0.132 in Model 2 ($p<0.01$), 0.106 ($p<0.05$) in Model 3, 0.160 ($p<0.05$) in Model 4, and 0.133 ($p<0.10$) in Model 5. These results are presented in Table 4B on page 192. Because this is a probit specification, the coefficients signify that belonging to the top quartile of the self-perceived body development index distribution is positively associated with occurrence of lifetime depression diagnosis. However, the previous coefficients are not indicative of magnitude, only of directionality, and thus are difficult to interpret as is. Therefore, marginal effects are calculated, using the margins command in Stata 13 (2013). These are presented in brackets below the coefficient in Table 4B on page 192.

Results from the marginal effects analyses are interpreted as the change in the probability seeking emotional of psychological counseling. In Model 1, the marginal effect dy/dx β_2 (TQSPBDI) is equal to 0.0288 ($p<0.01$). This marginal effect signifies that belonging to the top quartile of the self-perceived body development index is associated with a 0.0288 percentage point increase in the probability of seeking psychological or emotional counseling in the past 12 months, or a 24.20% [(0.0288/0.119)*100] increase in the probability seeking psychological or emotional counseling in the past 12 months. In Model 2, the marginal effect dy/dx β_2 (TQSPBDI) is equal to 0.0273 ($p<0.05$). This marginal effect indicates that belonging to the top quartile of the self-perceived body development index is associated with a 0.0273 percentage point increase in the probability of seeking psychological or emotional counseling, or a 22.94% [(0.0273/0.119)*100] increase in the probability of seeking psychological or emotional health counseling in the past 12 months. In Model 3, the marginal effect dy/dx β_2 (TQSPBDI) is equal to 0.0214 ($p<0.10$). This marginal effect signifies that belonging to the top quartile of the self-perceived body development index distribution is associated with a 0.0214 percentage point increase in the probability of seeking psychological or emotional counseling in the past 12 months, or a 17.98% [(0.0214/0.119)*100] increase in the probability seeking psychological or emotional counseling in the past 12 months. In Model 4, the marginal effect dy/dx β_1 (TQSPBDI) is equal to 0.0323 ($p<0.05$). This marginal effect signifies that belonging to the top quartile of the self-perceived body development index distribution is associated with a 0.0323 percentage point increase in the probability of seeking psychological or emotional counseling in the past 12 months, or a 27.14%

[(0.0323/0.119)*100] increase in the probability of seeking psychological or emotional counseling in the past 12 months. In Model 5, the marginal effect dy/dx β_1 (TQSPBDI) is equal to 0.0239 ($p<0.05$). This marginal effect indicates that belonging to the top quartile of the self-perceived body development index distribution is associated with a 0.0239 percentage point increase in the probability of seeking psychological or emotional counseling in the past 12 months, or a 20.08% [(0.0239/0.119)*100] increase in the probability of seeking psychological or emotional counseling in the past 12 months.

The set of control variables currently attending school, lifetime other drug use, lifetime number of chronic conditions, and employment-sponsored health insurance are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

Summarily, results from this analysis demonstrated that only girls belonging to the top quartile of the self-perceived body development distribution were more likely to seek psychological or emotional counseling in the past 12 months, at Wave IV. The sign and magnitude of the coefficients pertaining to the top quartile of the self-perceived body development distribution are consistent with my hypothesis, as they indicate that girls belonging to the top quartile of the self-perceived body development index distribution are more likely than their counterparts in the interquartile range to have sought psychological or emotional counseling in the past 12 months at Wave IV.

8.1.1.4.3 Bottom and top deciles

The third specification, in which the independent effect of belonging to the bottom and top deciles of the self-perceived body development index is regressed on the occurrence of past 12 months psychological or emotional counseling at Wave IV, yields the following results, which are presented in Table 4C on page 194. Similar to the previous specification, findings from the present analysis do not support my hypothesis. Once again, neither belonging to the top or bottom quartiles of the self-perceived body development index is associated with a higher likelihood of seeking psychological or emotional counseling in the past 12 months. The set of control variables currently attending school, lifetime other drug use, lifetime number of chronic conditions, and other health insurance are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

Such lack of significance for the main dependent variable of interest reveals that belonging to the top and bottom tails of the self-perceived body development index distribution is not a robust predictor of seeking psychological or mental health counseling in the past 12 months at Wave IV.

8.1.1.4.4 Bottom and top 5^th^ percentiles

The fourth specification, in which the independent effect of belonging to the bottom and top quartiles of the self-perceived body development index is regressed on the occurrence of past 12 months psychological or emotional, counseling at Wave IV, yields the following results- presented in Table 4D on page 196. Similar to the previous two models, results emanating from the current analysis do not support my hypothesis; neither belonging to the top or bottom quartiles of the self-perceived body development index is associated with a higher likelihood of seeking psychological or emotional counseling in the past 12 months. The set of control variables currently attending school, lifetime other drug use, lifetime number of chronic conditions, and other health insurance are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

Again, this absence of significance reinforces the notion that belonging to the top and bottom tails of the self-perceived body development index distribution is not a robust predictor of seeking psychological or mental health counseling in the past 12 moths at Wave IV.

8.1.1.5. Body Mass Index (BMI)

8.1.1.5.1 Raw index

When the self-perceived body development index was regressed on the natural logarithm of BMI at Wave IV, the following findings -presented in Table 5A on page 198- emerged. Consistent with my prediction, self-perceived body development was a significant predictor of BMI in all 5 models.

In Model 1, the estimated regression coefficient β_1 (self-perceived body development) is equal to 0.0219 ($p<0.01$). Since this is a log-linear regression function, this coefficient signifies that a one-unit increase in the self-perceived body development index is associated with an approximate 2.19% increase in BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.0219}-1 = 0.029$. Therefore, a one-unit increase in the self-perceived body development index is associated with a 2.9% higher BMI at Wave IV.

In Model 2, the estimated regression coefficient β_1 (self-perceived body development) is equal to 0.0225 ($p<0.01$). Because it is a log-linear regression function, this coefficient signifies that a one-unit increase in the self-perceived body development index is associated with an approximate 2.25% higher BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.0225}$-1 = 0.028. Hence, a one-unit increase in the self-perceived body development index is associated with a 2.8% increase in BMI at Wave IV.

In Models 3 and 4, the estimated regression coefficient β_1 (self-perceived body development) is equal to 0.0233 ($p<0.01$). Because it is a log-linear regression function, this coefficient means that a one-unit increase in the self-perceived body development index is associated with an approximate 2.33% higher BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.0233}$-1 = 0.024. Thus, a one-unit increase in the self-perceived body development index is associated with a 2.36% higher in BMI at Wave IV.

In Model 5, the estimated regression coefficient β_1 (self-perceived body development) is equal to 0.0229 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: a one-unit increase in the self-perceived body development index is associated with an approximate 2.33% higher BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.0233}$-1 = 0.0236. Thus, a one-unit increase in the self-perceived body development index is associated with a 2.36% higher BMI at Wave IV.

The set of control variables African American, born in the U.S., residential father white collar, ever married, completed college, lifetime other drug use, and lifetime number of chronic conditions are all statistically significant at the 1% level of significance. The previous controls all have the anticipated signs and magnitudes.

8.1.1.5.2 Bottom and top quartiles

The second specification, in which the independent impact on BMI of belonging to the bottom and top quartiles of the self -perceived body development index, supports my hypothesis. Indeed, belonging to the bottom quartile of the self-perceived body development index distribution is associated with a higher BMI at Wave IV. Inversely, belonging to the top quartile of the self-perceived body development index distribution is associated with a higher BMI at Wave IV. These results are presented in Table 5B on page 200.

At the bottom quartile, in Model 1, the estimated regression coefficient β_1 (BQSPBDI) is equal to -0.0585 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the top quartile of the self-perceived body development index distribution is associated with an approximate 5.85% lower BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e\text{-}^{0.0585}-1 = 0.0620$. Thus, belonging to the bottom quartile of the self-perceived body development index distribution is associated with a 5.85% lower BMI at Wave IV. In Model 2, the estimated regression coefficient β_1 (BQSPBDI) is equal to -0.0634 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the bottom quartile of the self-perceived body development index distribution is associated with an approximate 6.34% lower BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e\text{-}^{0.0634}-1 = 0.0655$. Thus, belonging to the bottom quartile of the self-perceived body development index distribution is associated with a 6.55% lower BMI at In Model 3, the estimated regression coefficient β_1 (BQSPBDI) is equal to -0.0647

($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the bottom quartile of the self-perceived body development index distribution is associated with an approximate 6.47% lower BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{-0.0647}-1 = 0.0668$. Therefore, belonging to the bottom quartile of the self-perceived body development index distribution is associated with a 6.68% lower at Wave IV. In Model 4, the estimated regression coefficient β_1 (BQSPBDI) is equal to -0.0650 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the bottom quartile of the self-perceived body development index distribution is associated with an approximate 6.50% lower BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{-0.0650}-1 = 0.0672$. Thus, belonging to the bottom quartile of the self-perceived body development index is associated with a 6.72% lower BMI at Wave IV. In Model 5, the estimated regression coefficient β_1 (BQSPBDI) is equal to -0.0652 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the bottom quartile of the self-perceived body development index distribution is associated with an approximate 6.52% lower BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{-0.0652}-1 = 0.0674$. Thus, belonging to the bottom quartile of the self-perceived body development index distribution is associated with a 6.74% lower BMI at Wave IV.

At the top quartile of the distribution, in Model 1, the estimated regression coefficient β_2 (TQSPBDI) is equal to 0.104 ($p<0.01$). Since this is a log-linear regression function, this coefficient is interpreted as follows: belonging to the top quartile of the self-perceived body development index is associated with an approximate 10.40% increase in BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.0585}$-1 = 0.110. Thus, belonging to the top quartile of the self-perceived body development index is associated with an 11.00% higher BMI at Wave IV. In Model 2, the estimated regression coefficient β_2 (TQSPBDI) is equal to 0.0985 ($p<0.01$). This coefficient is interpreted as follows: belonging to the top quartile of the self-perceived body development index distribution is associated with an approximate 9.85% increase in BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.0985}$-1 = 0.0655. Thus, belonging to the top quartile of the self-perceived body development index distribution is associated with a 6.55% increase in BMI at Wave IV. In Model 3, the estimated regression coefficient β_2 (TQSPBDI) is equal to 0.101 ($p<0.01$). Thus, belonging to the top quartile of the self-perceived body development index distribution is associated with an approximate 10.10% increase in BMI. The exact percentage change in earnings is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.101}$-1 = 0.1063. Hence, belonging to the top quartile of the self-perceived body development index distribution is associated with a 10.63% higher BMI at Wave IV. In Model 4, the estimated regression coefficient β_2 (TQSPBDI) is equal to 0.0995 ($p<0.01$). This coefficient is interpreted as follows: belonging to the top quartile of the self-perceived body development index distribution is associated with an approximate 9.95% increase in BMI. The exact percentage change in earnings is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.0995}$-1 = 0.0672. Thus, belonging to the top quartile of the self-perceived body development index distribution is associated with a 6.72% increase in BMI at Wave IV. In Model 5, the estimated regression coefficient β_2 (TQSPBDI) is equal to 0.0952 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the top quartile in the self-perceived body development index distribution is associated with an approximate 9.52% increase in BMI. The exact percentage change in earnings is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.0952}-1 = 0.1046$. Thus, belonging to the top quartile of the self-perceived body development index distribution is associated with a 10.46% higher BMI at Wave IV.

The set of control variables African American, born in the U.S., residential father white collar, ever married, completed college, lifetime other drug use, and lifetime number of chronic conditions are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

8.1.1.5.3 Bottom and top deciles

The third specification, in which the independent impact on BMI of belonging to the bottom and top deciles of the self -perceived body development index, also supports my hypothesis. Indeed, belonging to the bottom decile of the self-perceived body development index distribution is associated with a higher BMI at Wave IV. Conversely, belonging to the top decile of the self-perceived body development index distribution is associated with a higher BMI at Wave IV. These results are presented in Table 5C on page 202.

At the bottom decile, in Model 1, the estimated regression coefficient β_1 (BDSPBDI) is equal to -0.0811 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the bottom decile of the self-perceived body development index distribution is associated with an approximate 8.11% lower BMI. The exact percentage change in earnings is obtained by taking the antilog of the coefficient and subtracting 1: $e^{-0.0811}-1 = -0.0844$. Thus, belonging to the bottom decile of the self-perceived body development index distribution is associated with a 8.44% lower BMI at Wave IV. In Model 2, the estimated regression coefficient β_1 (BDSPBDI) is equal to -0.0744 ($p<0.01$). Since this is a log-linear regression function, this coefficient is interpreted as follows: belonging to the bottom decile of the self-perceived body development index distribution is associated with an approximate 7.44% lower BMI. The exact percentage change in earnings is obtained by taking the antilog of the coefficient and subtracting 1: $e^{-0.0744}-1 = -0.0772$. Thus, belonging to the bottom decile of the self-perceived body development index is associated with a 7.72% lower BMI at Wave IV. In Model 3, the estimated regression coefficient β_1 (BDSPBDI) is equal to -0.0856 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the bottom decile the self-perceived body development index is associated with an approximate 8.56% lower BMI. The exact percentage change in earnings is obtained by taking the antilog of the coefficient and subtracting 1: $e^{-0.0856}-1 =-0.0893$. Therefore, belonging to the bottom decile of the self-perceived body development index distribution is associated with an 8.93% lower BMI at Wave IV. In Model 4, the estimated regression coefficient β_1 (BDSPBDI) is equal to -0.0844 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the bottom decile of the self-perceived body development index distribution is associated with an approximate 8.44% lower BMI. The exact percentage change in earnings is obtained by taking the antilog of the coefficient and subtracting 1: $e^{-0.0844}-1 = 0.0881$. Thus, belonging to the bottom decile of the self-perceived body development index distribution is associated with an 8.81% lower BMI at Wave IV. In Model 5, the estimated regression coefficient β_1 (BDSPBDI) is equal to -0.0826 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the bottom decile of the self-perceived body development index is associated with an approximate 8.26% lower BMI. The exact percentage change in earnings is obtained by taking the antilog of the coefficient and subtracting 1: $e^{-0.0826}-1 = -0.0860$. Thus, belonging to the top decile of the self-perceived body development index distribution is associated with an 8.60% lower BMI at Wave IV.

At the top decile of the distribution, in Model 1, the estimated regression coefficient β_2 (TDSPBDI) is equal to 0.120 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the top decile of the self-perceived body development index distribution is associated with an approximate 12.00% increase in BMI. The exact percentage change in earnings is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.120}-1 = 0.1274$. Thus, belonging to the top decile of the self-perceived body development index distribution is associated with a 12.74% higher BMI at Wave IV. In Model 2, the estimated regression coefficient β_2 (TDSPBDI) is equal to 0.116 ($p<0.01$). This coefficient is interpreted as follows: belonging to the top decile of the self-perceived body development index distribution is associated with an approximate 11.60% increase in BMI. The exact percentage change in earnings is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.116}-1 = 0.119$. Thus, belonging to the top decile of the self-perceived body development index distribution is associated with an 11.90% increase in BMI at Wave IV. In Model 3, the estimated regression coefficient β_2 (TDSPBDI) is equal to 0.113 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the bottom decile of the self-perceived body development index distribution is associated with an approximate 11.30% increase in BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.1130}-1 = 0.1196$. Thus, belonging to the top decile of the self-perceived body development index distribution is associated with an 11.96% lower BMI at Wave IV. In Model 4, the estimated regression coefficient β_2 (TDSPBDI) is equal to 0.117 ($p<0.01$). This coefficient is interpreted as follows: belonging to the top decile of the self-perceived body development index distribution is associated with an approximate 11.70% increase in BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.1170}-1 = 0.1241$. Thus, belonging to the top decile of the self-perceived body development index distribution is associated with a 12.41% increase in BMI at Wave IV. In Model 5, the estimated regression coefficient β_2 (TDSPBDI) is equal to 0.1180 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the self-perceived body development index distribution is associated with an approximate 11.80% increase in BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.0118}-1 = 0.1252$. Thus, belonging to the top decile of the self-perceived body development index distribution is associated with a 12.52% higher BMI at Wave IV.

The set of control variables age, Hispanic ethnicity, African American, born in the U.S., residential father white collar, ever married, completed college, lifetime other drug use, and lifetime number of chronic conditions are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

8.1.1.5.4 Bottom and top 5th percentiles

The fourth specification, in which the independent impact on BMI of belonging to the bottom and top 5th percentiles of the self -perceived body development index, supports my hypothesis again. As such, belonging to the bottom 5th percentiles of the self-perceived body development index distribution is associated with a higher BMI at Wave IV. On the contrary, belonging to the top 5th percentile of the self-perceived body development index distribution is associated with a higher BMI at Wave IV. These results are presented in Table 5D on page 204.

At the bottom 5th percentile, in Model 1, the estimated regression coefficient β_1 (B5PSPBDI) is equal to -0.0865 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the bottom 5th percentile of the self-perceived body development index distribution is associated with an approximate 8.65% lower BMI. The exact percentage change in earnings is obtained by taking the antilog of the coefficient and subtracting 1: $e^{-0.0865}-1 = -0.0935$. Hence, belonging to the bottom 5th percentile of the self-perceived body development index distribution is associated with a 9.35% lower BMI at Wave IV. In Model 2, the estimated regression coefficient β_1 (B5PSPBDI) is equal to -0.0834 ($p<0.01$). Since this is a log-linear regression function, this coefficient is interpreted as follows: belonging to the bottom 5th percentile of the self-perceived body development index distribution is associated with an approximate 8.34% lower BMI. The exact percentage change in earnings is obtained by taking the antilog of the coefficient and subtracting 1: $e^{-0.0834}-1 = -0.0904$. As such, belonging to the bottom

5th percentile of the self-perceived body development index is associated with a 9.04% lower BMI at Wave IV. In Model 3, the estimated regression coefficient β_1 (B5PSPBDI) is equal to -0.0927 (p<0.01). Since this is a log-linear regression function, this coefficient is interpreted as follows: belonging to the bottom 5th percentile the self-perceived body development index is associated with an approximate 9.27% lower BMI. The exact percentage change in earnings is obtained by taking the antilog of the coefficient and subtracting 1: $e^{-0.0927}-1$ =-0.0971. Therefore, belonging to the bottom 5th percentile of the self-perceived body development index distribution is associated with a 9.71% lower BMI at Wave IV. In Model 4, the estimated regression coefficient β_1 (B5PSPBDI) is equal to -0.0917 (p<0.01). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the bottom 5th percentile of the self-perceived body development index distribution is associated with an approximate 9.17% lower BMI. The exact percentage change in earnings is obtained by taking the antilog of the coefficient and subtracting 1: $e^{-0.0917}-1$ = 0.0960 Thus, belonging to the bottom 5th percentile of the self-perceived body development index distribution is associated with a 9.60% lower BMI at Wave IV. In Model 5, the estimated regression coefficient β_1 (B5PSPBDI) is equal to -0.0831 (p<0.01). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the bottom 5th percentile of the self-perceived body development index is associated with an approximate 8.31% lower BMI. The exact percentage change in earnings is obtaining by taking the antilog and subtracting 1: $e^{-0.0831}-1$ = -0.0887. Being in the lower 5th percentile of the self-perceived body development index distribution is linked with having an 8.87% lower BMI at Wave IV.

At the top 5th percentiles of the distribution, in Model 1, the estimated regression coefficient β_2 (T5PSPBDI) is equal to 0.143 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the top 5th percentiles of the self-perceived body development index distribution is associated with an approximate 14.30% increase in BMI. The exact percentage change in earnings is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.143}-1 = 0.1537$. Thus, belonging to the top 5th percentiles of the self-perceived body development index distribution is associated with a15.37% higher BMI at Wave IV. In Model 2, the estimated regression coefficient β_2 (T5PSPBDI) is equal to 0.141 ($p<0.01$). This coefficient is interpreted as follows: belonging to the top 5th percentiles of the self-perceived body development index distribution is associated with an approximate 14.10% increase in BMI. The exact percentage change in earnings is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.141}-1 = 0.1514$. Thus, belonging to the top 5th percentiles of the self-perceived body development index distribution is associated with a 15.14% increase in BMI at Wave IV. In Model 3, the estimated regression coefficient β_2 (TDSPBDI) is equal to 0.144 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the bottom 5th percentile of the self-perceived body development index distribution is associated with an approximate 14.40% increase in BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.144}-1 = 0.1549$. Thus, belonging to the top 5th percentile of the self-perceived body development index distribution is associated with a 15.49% lower BMI at Wave IV. In Model 4, the estimated regression coefficient β_2 (T5PSPBDI) is equal to 0.147 ($p<0.01$). This coefficient is interpreted as follows: belonging to the top 5th percentile of the self-perceived body development index distribution is associated with an approximate 14.70% increase in BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.147}1 = 0.1584$. Thus, belonging to the top 5th percentile of the self-perceived body development index distribution is associated with a 15.84% increase in BMI at Wave IV. In Model 5, the estimated regression coefficient β_2 (T5PSPBDI) is equal to 0.149 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: belonging to the top 5th percentile self-perceived body development index distribution is associated with an approximate 14.90% increase in BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.149}-1 = 0.1607$. Thus, belonging to the top 5thpercentile of the self-perceived body development index distribution is associated with a 16.07% higher BMI at Wave IV.

The set of control variables age, Hispanic ethnicity, African American, born in the U.S., residential father white collar, ever married, completed college, advanced professional degree, lifetime other drug use, and lifetime number of chronic conditions are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

Summarily, it is clear that across models and specifications, there exists a robust and statistically significant relationship between self-perceived body development and BMI. As such, girls with higher scores on self-perceived body development index at Wave I are more likely than their counterparts with lower scores to have a higher BMI at Wave IV. Additionally, girls belonging to the bottom of the self-perceived body development distribution (bottom quartile, decile, and 5th percentile) are more likely than their counterparts at the center of the distribution, to have lower BMIs at Wave IV. In the same fashion, girls belonging to the top of the self-perceived body development index distribution (top quartile, decile, and 5th percentile) are more likely than their counterparts at the center of the distribution, to have higher BMIs at Wave IV.

8.2 Results for Men

The results for men's analyses are presented in Table 6 on page 206, and are based on Model 5- the most inclusive specification.

Among men, the findings -or lack thereof- emanating from the analyses support my hypothesis. They reveal that the self-perceived body development index does not predict any of the outcomes at Wave IV, with the exception of BMI. The estimated regression coefficient β_1 (self-perceived body development index) is equal to 0.119 ($p<0.01$). This coefficient is interpreted as follows: a one-unit increase in the self-perceived body development index is associated with an approximate 11.90% increase in BMI. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.119}1 = 0.1264$. Thus, a one-unit increase in the of the self-perceived body development index distribution is associated with a 12.64% higher BMI at Wave IV. After performing analyses for the raw index and for the quartiles, deciles, and 5th percentiles, I include only the results pertaining to the raw index analyses; none of the analyses for the other measures yield statistically significant results, except for BMI. (These results are not presented in the current document but are available upon request).

Despite the significance of the previous results, these must be interpreted with caution. Indeed, there may be a tautological relationship between BMI and self-perceived body development, which shall be explained in greater detail in the "discussion" section of this dissertation.

8.3 Sensitivity tests: independent effects of self-perceived breasts, curves, and overall self-perceived development

8.3.1 Self-rated health

In the current section, I analyze the effect of three sets of dummy variables at Wave I on self-rated health at Wave IV. These sets of dichotomous variables capture the three elements of the self-perceived body development index independently: self-perceived breast development, self-perceived curves development, and self-perceived overall development. For each element, I divide the variable into two groups: slow self-perceived development and advanced self-perceived development. Results from this analysis are based on Model 5-the most inclusive model-and are presented in Table 7A on page 209. Because this model is estimated with ordered probit regression and marginal effects are not calculated, the coefficients are only interpretable in terms of directionality and statistical significance.

Importantly, this analysis reveals that self-perceived advanced curves development, self-perceived slow overall development, and self perceived advanced overall development at Wave I are salient predictors of self-rated health at Wave IV. For self-perceived advanced curves development, the coefficient is equal to -0.0782 ($p<0.10$), which indicates that girls who believed their body was about as curvy or a little more curvy as when they were in grade school were more likely than their counterparts who believed their body was somewhat bigger than when they were in grade school to report lower levels of self-rated health at Wave IV. For self-perceived slow overall development, the coefficient is equal to -0.0851 ($p<0.05$), which indicates that girls who believed they looked younger than most or younger than some were more likely than their counterparts who thought they looked about average to report lower levels of self-rated health at Wave IV. Regarding self-perceived advanced overall development; the coefficient is equal to -0.102 ($p<0.05$), which indicates that girls who thought they looked older than some or older than most were more likely than their counterparts who believed they looked about average to report lower levels of self-rated health at Wave IV.

The set of control variables African American, other race, born in the U.S., residential father white collar, residential father employed currently attending school, some college, completed college, regular smoker (past 30 days), lifetime other drug use, and number of lifetime chronic conditions are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

8.3.2 Occurrence of lifetime depression diagnosis

In the present section, I analyze the effect of three sets of dummy variables at Wave I on the occurrence of lifetime depression diagnosis at Wave IV. Again, these sets of dichotomous variables capture the three elements of the self-perceived body development index independently: self-perceived breast development, self-perceived curves development, and self-perceived overall development. For each aspect, I separate the variable into two groups: slow self-perceived development and advanced self-perceived development. Results from this analysis are based on Model 5-the most inclusive model- and are presented in Table 7B on page 211. Because this model is estimated with a probit regression analysis -and marginal effects are not calculated- the coefficients that I present in the tables are only interpretable in terms of directionality and statistical significance.

Significantly, this analysis demonstrates that self-perceived advanced breast development, self-perceived slow breast development self-perceived slow curves development, self-perceived slow overall development, and self perceived advanced overall development at Wave I are salient predictors of the occurrence of lifetime depression diagnosis. For self-perceived advanced breast development, the coefficient of interest is equal to 0.141 ($p<0.05$), which indicates that girls who rate their breasts as looking a whole lot bigger than in grade school or looking like a grown woman's breasts are more likely than their counterparts who rate their breasts as being somewhat bigger than in grade school to have been diagnosed with depression in their lifetime.

In terms of self-perceived slow breast development, the coefficient of interest is equal to 0.0337($p<0.05$), indicating that girls who rate their breasts as looking about the same size or a little bigger than when they were in grade school are more likely than their counterparts who rated their breasts as somewhat bigger than in grade school to have been diagnosed with depression in their lifetime. With regard to self-perceived slow curves development, the coefficient is equal to -0.309 ($p<0.10$), which indicates that girls who believed their body was about as curvy or a little more curvy than when they were in grade school were less likely than their counterparts who believed their body was somewhat bigger than when they were in grade school to have been diagnosed with depression in their lifetime. For self-perceived slow overall development, the coefficient is equal to 0.335 ($p<0.01$) which indicates that girls who believed they looked younger than most or younger than some were more likely than their counterparts who thought they looked about average to have been diagnosed with depression in their lifetime. Finally, regarding self-perceived advanced overall development; the coefficient is equal to 0.271 ($p<0.01$), which signifies that girls who thought they looked older than some or older than most were more likely than their counterparts who believed they looked about average to have been diagnosed with depression during their lifetime.

The set of control variables Hispanic ethnicity, African American, regular smoker (past 30 days), lifetime other drug use, employment-sponsored health insurance, weekly physical activity, and number of lifetime chronic conditions are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

8.3.3 Occurrence of psychological or emotional counseling, past 12 months

Here, I analyze the impact of three sets of dummy variables at Wave I on the past 12 months occurrence of psychological or emotional counseling at Wave IV. As in the previous 2 models, these sets of dichotomous variables capture the three elements of the self-perceived body development index independently: self-perceived breast development, self-perceived curves development, and self-perceived overall development. For each element, I split the variable into two groups: slow self-perceived development and advanced self-perceived development. Results from this analysis are based on Model 5-the most inclusive model-and are presented in Table 7C on page 213. Since this analysis is estimated with probit regression -without marginal effects- the coefficients are only interpretable in terms of directionality and statistical significance.

In terms of self-perceived slow breast development, the coefficient of interest is equal to 0.123 (p<0.05), indicating that girls who rate their breasts as looking about the same size or a little bigger than when they were in grade school are more likely than their counterparts who rated their breasts as somewhat bigger than in grade school to have sought psychological or emotional counseling in the past 12 months at Wave IV. For self-perceived slow overall development, the coefficient is equal to 0.266 (p<0.01) which indicates that girls who believed they looked younger than most or younger than some were more likely than their counterparts who thought they looked about average to have sought psychological or emotional counseling in the past 12 months at Wave IV. Finally, regarding self-perceived advanced overall development; the coefficient is equal to 0.153 (p<0.01), which signifies that girls who thought they looked older than some or older than most were more likely than their counterparts who believed they looked about average to have sought psychological or emotional counseling in the past 12 months at Wave IV.

The set of control variables African American, other race, residential father employed, some college, completed college, annual earnings, regular smoker (past 30 days), marijuana user (past year), lifetime other drug use, employment-sponsored health insurance, and number of lifetime chronic conditions are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

8.3.4 Body Mass Index (BMI)

In the current section, I examine the impact of three sets of dummy variables at Wave I on the natural logarithm of BMI at Wave IV. Similar to the previous 3 models, these sets of dichotomous variables capture the three elements of the self-perceived body development index independently: self-perceived breast development, self-perceived curves development, and self-perceived overall development. For each element, I split the variable into two groups: slow self-perceived development and advanced self-perceived development. Findings emanating from this analysis are based on Model 5- the most inclusive model- and are presented in Table 7D on page 216.

In this specification, three coefficients are statistically significantly associated with BMI: self-perceived advanced breast development, self-perceived slow overall development, and self-perceived advanced overall development. For self-perceived advanced breast development, the estimated regression coefficient is equal to 0.0826 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: girls who rate their breasts as looking a whole lot bigger than in grade school or looking like a grown woman's breasts have an approximate 8.26% higher BMI at Wave IV. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.0826}-1 = 0.0861$. Thus, girls who rate their breasts as looking a whole lot bigger than in grade school or looking like a grown woman's breasts have an 8.61% higher BMI at Wave IV. For self-perceived advanced development, the estimated regression coefficient is equal to 0.063 ($p<0.01$). Because it is a log-linear regression function, this coefficient is interpreted as follows: girls who believed they looked older than some or older than some most an approximate 6.30% higher BMI at Wave IV. The exact percentage change in BMI is obtained by taking the antilog of the coefficient and subtracting 1: $e^{0.063}-1 = 0.065$. Thus, girls who believed that they looked younger than most girls around them, or younger than some, had an exact 6.50% higher BMI at Wave IV - as compared than their counterparts who believed they looked about average.

The set of control variables age, Hispanic ethnicity, African American, born in the U.S. other race, residential father white collar, ever married, completed college, annual earnings, lifetime other drug use, and number of lifetime chronic conditions are all statistically significant at the 1% level of significance and have the anticipated signs and magnitudes.

Overall, results from the sensitivity analyses suggest that girls who perceive themselves to be more or less developed than average at Wave I are more likely to report negative health outcomes at Wave IV. Specifically, results from this analysis demonstrate that girls who perceive themselves to be significantly more curvy than in grade school, who believe they look significantly younger or older than their peers at adolescence are more likely than their counterparts who consider themselves to be less curvy and to look about average age to report lower levels of self-rated health. Thus, self-perceptions of advanced curves development and believing one looks younger or older than one's peers are predictors of lower self-rated health at Wave IV. Regarding the occurrence of lifetime depression diagnosis, girls who perceive their breasts to be more developed or less developed than average are more likely to have been diagnosed with depression during their lifetime. Similarly, girls who see themselves as being less curvy than average are also more likely to have been diagnosed with depression during their lifetime. Finally, girls who perceive that they look younger or older than their peers are more likely to have been diagnosed with depression during their lifetime. In terms of occurrence of psychological or emotional counseling, girls who perceive their breasts to be less developed than average, and girls who believe they look younger and older than their peers are also more likely to have sought psychological or emotional counseling in the past 12 months. With regard to BMI, self-perceived advanced breast development, and believing that one looks older than average are associated with having a higher BMI at Wave IV. Conversely, believing that one looks younger than average is associated with having a lower BMI at Wave IV.

Chapter Nine: Discussion

9.1 Key findings

Consistent with my hypotheses, results from the main specifications and sensitivity analyses of the current study indicate that among girls, self-perceived body development is a predictor of lower self-rated health, higher likelihood of depression diagnosis, higher scores on the CES-D depression scale, higher likelihood of seeking psychological or emotional counseling, and higher BMI during emerging adulthood. Further, self-perceptions of breasts, curves, and overall physical development also emerged as key predictors of health outcomes at Wave IV. In addition, findings from the current dissertation indicate the presence strong gendered effects with regard to the impact of self-rated body development on adult health. Among boys, the self-rated body development index predicts only BMI during adulthood, and none of the other health outcomes of interest.

Below, I select and recap some of the most salient results pertaining to the core models:

9.1.1 Self-rated health

For girls, a one-unit increase in self-perceived body development is associated with a 1.89% decrease in the probability of reporting excellent health. Belonging to the top quartile of the self-perceived body development index is associated with a 13.80% increase in the probability of reporting poor health. Belonging to the top 5^{th} percentile of self-perceived body development index distribution is associated with a 31.17% decrease in the probability of reporting an excellent level of self- rated health status.

9.1.2 Occurrence of lifetime depression diagnosis

For girls, a one-unit increase in the self-perceived body development index is associated with a 1.82% increase in the probability of lifetime depression diagnosis.

Girls belonging to the top 5th percentile of the self-perceived body development index distribution have a 57.63% greater likelihood of lifetime depression diagnosis.

9.1.3 CES-D depression scale

Girls belonging to the extremes top and bottom quarters of the distribution of the self-perceived body development index distribution are more likely than their counterparts in the interquartile range to have higher scores on the CES-D depression scale.

Girls belonging to the top and bottom 5th percentiles of the self-perceived body development index distribution are more likely than their counterparts in the interquartile range to have higher scores on the CES-D depression scale. The previous effect, however, is by and large more consistent and robust for girls belonging to the bottom of the distribution.

9.1.4 Occurrence of psychological or emotional counseling

A one-unit increase in the self-perceived body development index is associated with a 2.10% increase in the probability of having sought psychological or emotional counseling in the past 12 months at Wave IV. Girls belonging to the top quartile of the self-perceived body development index distribution are 20.08% more likely to have sought psychological or emotional counseling in the past 12 months at Wave IV.

9.1.5 BMI

A one-unit increase in the self-perceived body development index is associated with a 2.36% higher BMI at Wave IV.

Girls belonging to the bottom 5th percentile of the self-perceived body development index distribution have an 8.87% lower BMI at Wave IV.

Girls belonging to the top 5thpercentile of the self-perceived body development index distribution have a 16.07% higher BMI at Wave IV.

9.1.6 Results for Men

The self-perceived body development index does not predict any of the outcomes at Wave IV, with the exception of BMI.

Among men, a one-unit increase in the self-perceived body development index is associated with a 12.64% higher BMI at Wave IV

9.2 Theoretical Implications

9.2.1 Stress

The findings emerging from this dissertation must be interpreted in the context of the stress theory and research literature discussed earlier. As surmised by my hypotheses, among adolescent girls' self-perceptions of body-development- especially when those deviate from what girls consider to be the "normal average"- represent a powerful biological and social stressor that significantly impacts future adaptation and health status. Evidently, adolescent girls compare themselves to their former childhood bodies, and to the development of their peers. In turn, they may internalize the experienced changes as anomalies. As a result, the stress this causes has a deleterious impact on self-rated health, depression, and BMI during emerging adulthood, leading women to seek more mental health counseling. Biologically, such harmful effects on health may be the result of inflammation reactions triggered by the GAS, as posited by Selye (1956).

From a social standpoint, the strain experienced by adolescents as they face changes in body development may be considered both an eventful and chronic stressor, enmeshed in the social fabric during a time of life characterized by key role transitions and role conflict. Future bio-psycho-social research is needed to examine the mediating biological processes (inflammatory, hormonal, and genetic) and coping mechanisms, social resources, and personal resources surrounding self-perceived body development and the stress it engenders (Pearlin et al. 1981).

9.2.2. Objectification

The gendered effects emanating from my dissertation corroborate objectification theory, which contends that female bodies exist and develop in a social context of constant evaluation and sexual gaze by through social interactions and through media depictions (Frederickson and Roberts 1997). This suggests that perceived bodily changes during adolescence represent powerful stressors that have a greater impact on adult mental health and well being for women than they do for men. Thus, objectification theory is central to the analysis of self-perceived changes in body development among adolescents.

In terms of research methods, my composite indices are made of several body parts that are often sexually objectified by males (breasts, curves, body hair, facial hair, etc.). Therefore, my dissertation and the quantitative methodologies employed could be of assistance to researches interested in the measurement of objectification. Since the body of young women is highly susceptible to objectification during adolescence, increased research and policy must be dedicated to the stress and changes perceived by adolescent girls during this crucial physical and social transition of the life-course. Additionally, objectification theory could benefit from an elaboration, explaining how self-perceptions of body development are socially embedded, are affected by male gaze, and how they ultimately predict negative adult health outcomes.

9.2.3 Social psychology

Furthermore, the current dissertation supports the seminal body of social psychological literature regarding reflexivity and the self. Indeed, my project has reinforced the importance of self-referent constructs in the study of health and wellbeing. As social psychologists have contended, the self and body image emerge in a constantly evolving interactive process (Cooley 1902; Kaplan 2007; James 1915; Mead 1934). Importantly, the concept of the looking-glass self (Cooley 1902) is of particular relevance for adolescent girls; the way they see their changing bodies is highly influenced by how they believe society perceives them. Additionally, this research has demonstrated that the way adolescent girls see themselves is dependent on social comparisons with their peers and with their own childhood body. As such, the study of adolescent health could be informed by more social-psychological studies examining the influence of self-referent perceptions of body image, along with objectively measured markers of development.

9.2.4 The life-course paradigm

Significantly, my study also carries several theoretical implications in terms of the life-course paradigm (Elder et al. 2003). The study of self-perceptions of body development during adolescence could be informed by a life-course theoretical expansion. In this longitudinal research, I have uncovered novel trajectories, role transitions, and turning points in the life of adolescent girls. My research also sheds light on life-course transitions and cohort effects. Because self-perceptions of body development are situated within the context of a young person's life circumstances, they occur parallel to transitions and changing life structures during adolescence. Moreover, the five main tenets of the life-course paradigm are reinforced by the study of self-perceived body development during adolescence. Thus, one could develop an integrated life-course theory of adolescent self-perceptions of body development and adult health. Below, I explain how my study carries implications for each of the five tenets:

(1) The principle of life-span development: my study has demonstrated that adolescence and self-perceptions of development happen during a crucial phase of change and continuity, which has health implications well into adulthood. Thus, the process of change and continuity takes place all along the life span not just during childhood- and has implications for adult health.

(2) The principle of agency: adolescent girls construct their reality and their body perceptions based on choices and decisions that are constrained by social structures and processes. In particular, an overwhelming emphasis on female thinness, promoted by the media and the fashion industry, foster negative body image and self-esteem disorders among adolescent girls. Also, and as previously explained, processes of female objectification contribute to mental and physical health hazards that have effects spanning beyond adolescence.

(3) The principle of time and place: my study has demonstrated the impact of self-perceptions of body development in the specific sociocultural and geographical context of the United States between 1994 and 2008. Importantly, adolescents growing up during

the 1990s decade were developing in an era characterized by much thinner female models (Owen and Laurel Seller 2000), such as British model Kate Moss who coined the term “heroin chic”.

(4) The principle of timing: the antecedents and consequences of an adolescent’s actions are contingent on the timing when these actions took place during the life-course. My study is articulated around a precise and critical time frame -Wave I of the Add Health survey- for self-perceptions of body development. Self-perceptions of body development occurring at Wave I, during grades 7-11, are partially shaped by comparisons with the respondent’s former childhood body.

(5) The principle of linked lives: adolescents are connected and interconnected through shared networks and social relationships; their self-perceptions of body image and development are highly influenced by how they compare themselves to their peers.

9.3 Strengths

There are several strengths of this study. First, this is the first empirical and longitudinal study that suggests a significant association between a novel constructed index of self-perceived body development during adolescence and adult female health. This association holds after controlling for four comprehensive sets of covariates. Specifically, I controlled for demographic, family and social support, education and earnings, and health and lifestyle variables (which include the genetic markers MAOA and 5HTT). The design of my study is longitudinal, which allows for temporal ordering and a closer approximation to causality. In addition, the study employs sophisticated regression analysis and marginal effects calculations, while appropriately adjusting for clustering.

Second, my study represents an avant-garde interdisciplinary integration of medical sociology, social psychology, psychology, and medicine. As explained above, my study corroborates seminal works in social psychological, which indicate that the nature of the self is reflexive and constantly evolving amidst the social fabric. Also, my results are consistent with previous medical sociological and social psychological literature on self-referent constructs and health (Kaplan 2007). In particular, my index of self-perceived body development captures the importance of reflexivity and social comparisons. The theoretical implications of the present dissertation transverse various disciplines and have relevant applications for the following fields: the biomedical study of stress, the self, the sociological study of stress, objectification, and the life-course paradigm, As such, my results can contribute to future theoretical elaborations and expansions on adolescent stress, female objectification, and self-objectification. Finally, results from my study underscore how boys and girls experience adolescence and self-perceived body development differently.

9.4 Limitations

There are several challenges in interpreting this study, which qualify as limitations. First, in constructing my index of self-perceived body development, I assigned identical weights to each component of the index. For the sake of simplicity, I assumed that each of the measures carried the same weight. It may very well be, however, that each element should be weighed differently. If such were the case, then self-perceived breast development would carry more weight in the index than self-perceived curves development, or than self-perceived overall development. Therefore, various indices of self-perceived body development may be constructed, which could alter the impact of self-perceived body development on health outcomes during emerging adulthood. Additional research is needed to evaluate the reliability and validity of such indices. Another limitation of the present study lies in the difficulty to interpret the units of the index of self-perceived body development. Because the index is a composite additive measure of three self-perceived measures, it is challenging to assign a meaningful unit to the index.

Moreover, several data limitations constrain my study. The measures of development for boys do not capture the same concepts as they do for girls, which could be an explanation as to the lack of significant findings for men. Indeed, they measure facial hair, body hair, voice development, and overall development; but they do not tap into body part development that could be subject to objectification. Perhaps more multifold and relatable measures of male development -such as muscle development and genital development- ought to be included in the Add Health study. Another constraining data limitation was the absence of a depression measure at Wave I, which precludes me from controlling for prior levels of depression, and thus claiming causal associations.

Also, there might be an issue with endogeneity in the models predicting BMI, implying that the independent variables of the self-perceived body development index are correlated with the error term. This issue represents a violation of the OLS assumptions, and a statistical remedy like an instrumental variable (IV) may be necessary in future studies. There are also other statistical limitations associated with the current study, which could lead to biased and inconsistent estimators (Wooldridge 2009). For example, the index of self-perceived body development may be a function of other parameters, which could lead to further endogeneity. In addition, there may be measurement error in estimators. Furthermore, omitted variable bias may also be present, despite the comprehensive set of control variables that I include in my specifications.

Finally, this research has revealed that, for girls, there exists a statistically significant association between self-perceived body development and health outcomes during emerging adulthood. This dissertation, nevertheless, did not shed light on possible mediating variables and mechanisms that might play a role in this relationship.

9.5 Policy implications

The current research must be interpreted in the context of several key policy and social implications at three institutional levels: 1) the educational system, 2) the institution of medicine, and 3) corporations and the media.

First, school-based interventions and workshops must be developed to address body image perceptions and changes among young pre-adolescent and adolescent girls. Mentoring programs such as Big-Brother Big-Sister could contribute to improvements in body image and adolescent wellbeing.

Second, it is important that health-care providers and clinicians, such as nurse practitioners, family medicine physicians, cosmetic surgeons, and mental health counselors- monitor the body image perceptions and mental health risks of adolescent girls undergoing puberty. As such, it may be more advisable for female patients to consult mainly with female doctors, or with physicians with whom they feel most at ease, in order to promote a safe and comfortable doctor-patient relationship. In addition, a screening instrument examining self-perceived body development could be constructed and used by practitioners to evaluate the mental and physical health hazards of teenage girls. The American Board of Family Medicine offers a Certificate of Added

Qualifications (CAQs) in Adolescent Medicine (American Board of Family Medicine 2015). Thus, family physicians who specialize in adolescent medicine could incorporate screening guidelines for body image and risky self-perceptions of body developing during the teenage years. Further, the implementation of the Patient Protection and Affordable Care Act (PPACA) will have a sizeable and positive influence on adolescent health, through many of its provisions (English 2010). First, the PPACA will increase coverage by allowing young adults to remain on their parents' plan until age 26. Second, the PPACA prohibits plans from imposing pre-existing conditions exclusions. This provision was implemented in 2010 for adolescents and 2014 for adults. Third, the PPACA will expand Medicaid, which is required for children and some adolescents. Finally, the PPACA will require coverage of certain preventive services without cost-sharing. Since the PPACA is expanding coverage and assure reimbursement for many youths, this will allow an increasing number of health practitioners to attend to adolescent patients, monitor their health, and assess their self-perceptions of body development.

Lastly, the societal pressures exercised by corporations and the media must be underscored. Numerous studies have pointed at the role of the fashion industry and the media -particularly female fashion magazines- in socializing girls to internalize specific ideals of beauty and thinness (Paquette and Raine 2004). Such social constructions of thinness and beauty are evidenced through the exposure to thin models and television celebrities (Blood 2005). Recently, corporate efforts have been undertaken to tackle such body image issues on a global scale. Notably, the Dove Campaign for Real Beauty launched in 2004 represents an international effort aimed at promoting awareness of multiple definitions of beauty among women. Global corporate actors in the media, fashion, and food industries must undertake similar initiatives. In addition, non-state actors and NGOs ought to implement body image programs aimed at this age group. For instance, the *Girl Up* initiative, a United Nations funded program aimed at adolescent girls and present in 44 countries would highly benefit from the implementation of body advocacy and teenage girl empowerment. Socially responsible global initiatives and national policies targeted at young adolescent girls will have a considerable positive impact on building body image, confidence, perceived body development, and adult health.

9.6 Avenues for future research

While the findings emanating from the current dissertation represent a major contribution to the sociological study of adolescent stress, more research is needed to investigate the causal mechanisms through which self-perceived body development affects multiple health outcomes during emerging adulthood. Future research is needed regarding how self-perceptions of body development affects distinct outcomes such as gender inequality, labor market participation, earnings, initiation of sexual activity, dating behavior, and sexual transmitted diseases among young women. In my future research, I aim to continue utilizing the Add Health data to analyze whether genetic susceptibilities to stress and depression, like MAOA and 5HTT, interact with other predictors during important life-course transition, to predict adult outcomes.

In order to assess the external validity of my study, I would also like to examine the cross-cultural and cross-national variation between the United States and other countries with regard to conceptualizations of adolescent stress, meanings and perceptions of body image, and health outcomes among girls. In addition, adopting a queer and identity politics lens (Butler 1990), studying the effects of self-perceived body development among LGBTQ populations, would shed light on the intersectionalities between gender, sexual orientation, and perceptions of body development. Moreover, the study of mediating/moderating mechanisms linking self-perceived body development and health outcomes -utilizing Structural Equation Modeling (SEM)- could highlight the mechanisms linking self-perceived body development during adolescence and health outcomes during adulthood. Such mediating and moderating mechanisms could be drawn for Pearlin et al.'s (1981) original stress process model, and incorporate constructs to measure social support, coping, and mastery, and self-esteem. In Figure 5 on page 155, I introduce a prospective SEM model that I created; it could be used for prospective studied to uncover mediation and moderating variables in the study of adolescent self-perceptions of body development. Additionally, viable social-psychological mechanisms could include, self-concept, self-derogation, and self-doubt (Kaplan 2007). In addition, the effect of biomarkers of stress, inflammation, and allostatic load -such as C-Reactive Protein (CRP) and cortisol- may also be examined as potential mediators and moderators. Finally, qualitative studies could underscore the biographical processes involved in self-perceptions of adolescent body development. Qualitative research could also illuminate how meanings of body development and body image are construed differently and how they affect health status differently across genders.

Chapter 10: Conclusion

In conclusion, this study presents theoretical and empirical support for a novel life-course model contextualizing adolescent self-perceptions of body development and their effect on health. Admittedly, this study has elucidated the question posed in the introduction: does the way adolescents perceive their developing body impact their adult health? I have found that self-perceived body development during adolescence is experienced as a powerful stressor among girls. More specifically, the current dissertation has showed that higher levels of self-perceived body development, and levels that deviate from what adolescents perceive to represent a normative average- may constitute a potential risk factor linked to deleterious mental and physical health outcomes during emerging adulthood. As such, girls who believe they are much more developed than their peers and much more developed than when they were in grade school, are more likely to report lower levels of self-rated health, a greater likelihood of lifetime depression diagnosis, a greater likelihood of seeking psychological or emotional counseling, and are more likely to have a higher BMI during emerging adulthood. Significantly, this dissertation has evidenced that self-perceptions of body development, and not just objectively measured variables (e.g.: age at menarche), are crucial in predicting female adult health and wellbeing.

As delineated above, the policy implications of this research are multifold and span three institutional spheres: 1) the educational system, 2) the institution of medicine, and 3) corporations and the media. Arguably, it is crucial for all the previous institutional arenas to actively engage in monitoring adolescent girls' health and body image.

While the locus of my dissertation is set in the United States, the implications stemming from my research reach across borders and sociocultural contexts. Unfortunately, girls and women remain the majority or the world's unhealthy, malnourished, and underpaid population (Clinton Foundation 2015). Consequently, girls' health and wellbeing has become a priority for world leaders and policy makers. For instance, in early 2015, Hillary and Chelsea Clinton launched *"No Ceilings: the Full Participation Project",* a global initiative with a database aimed at promoting women's rights and gender equality worldwide (No Ceilings 2015). The initiative is geared towards promoting health improvements, educational, and employment advancement for women around the world. Thus, interventions and programs aimed at strengthening women's condition must highlight the necessity to make a positive impact on building body image, confidence, and to monitor self-perceived body development during adolescence to ensure women's globally.

In that spirit, and if replicated in future work on a global scale, my study could have important implications for planning and implementing population-health efforts seeking to improve female adolescent and adult wellbeing.

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Figure 1. Illustration of Sample Construction for Women

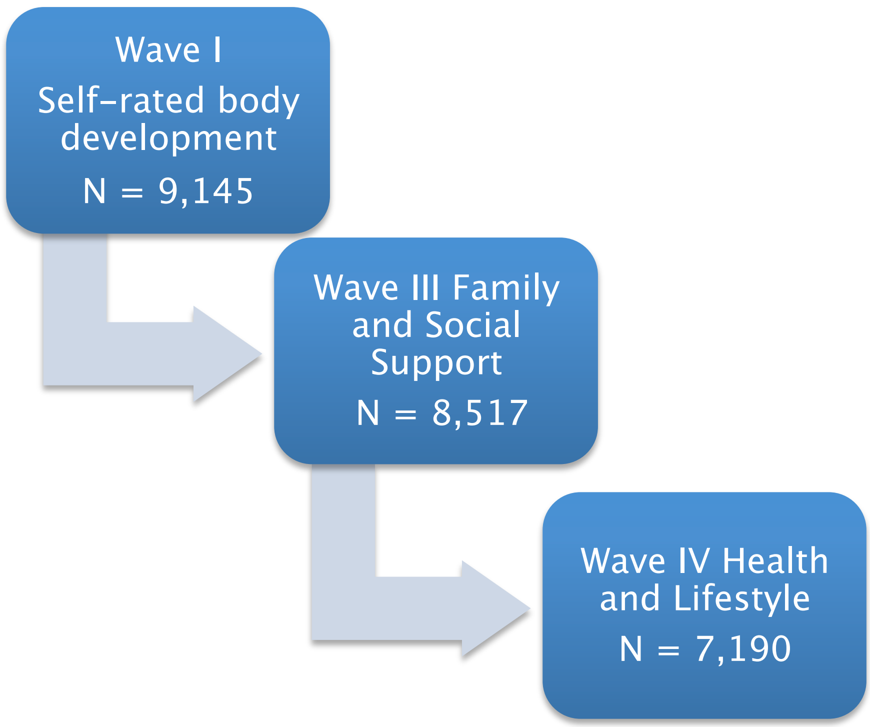

Figure 2. Illustration of Sample Construction for Men

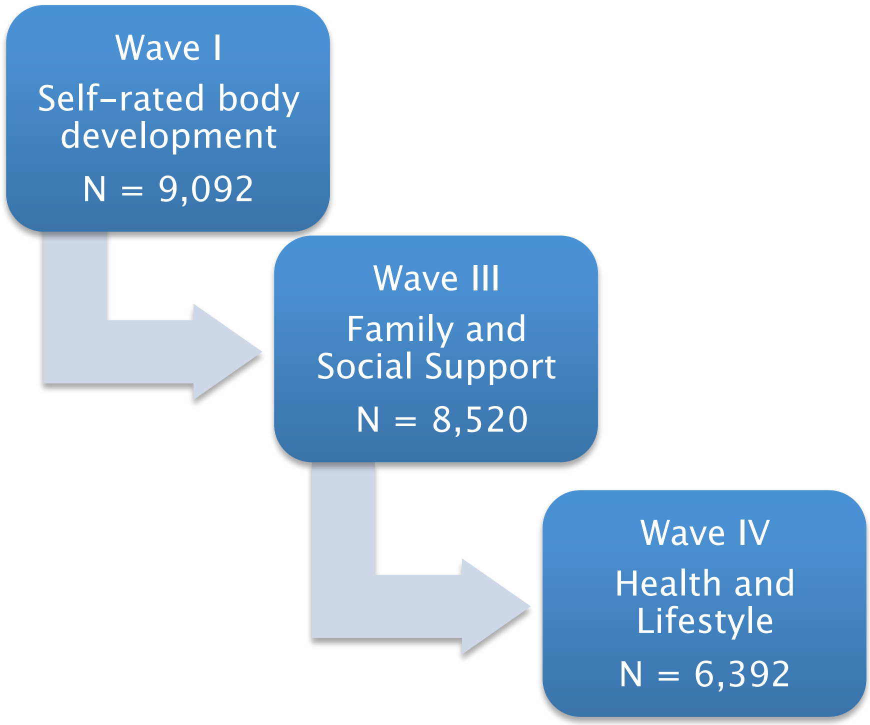

Figure 3: Histogram of Women's Self-Perceived Body Development Index Distribution

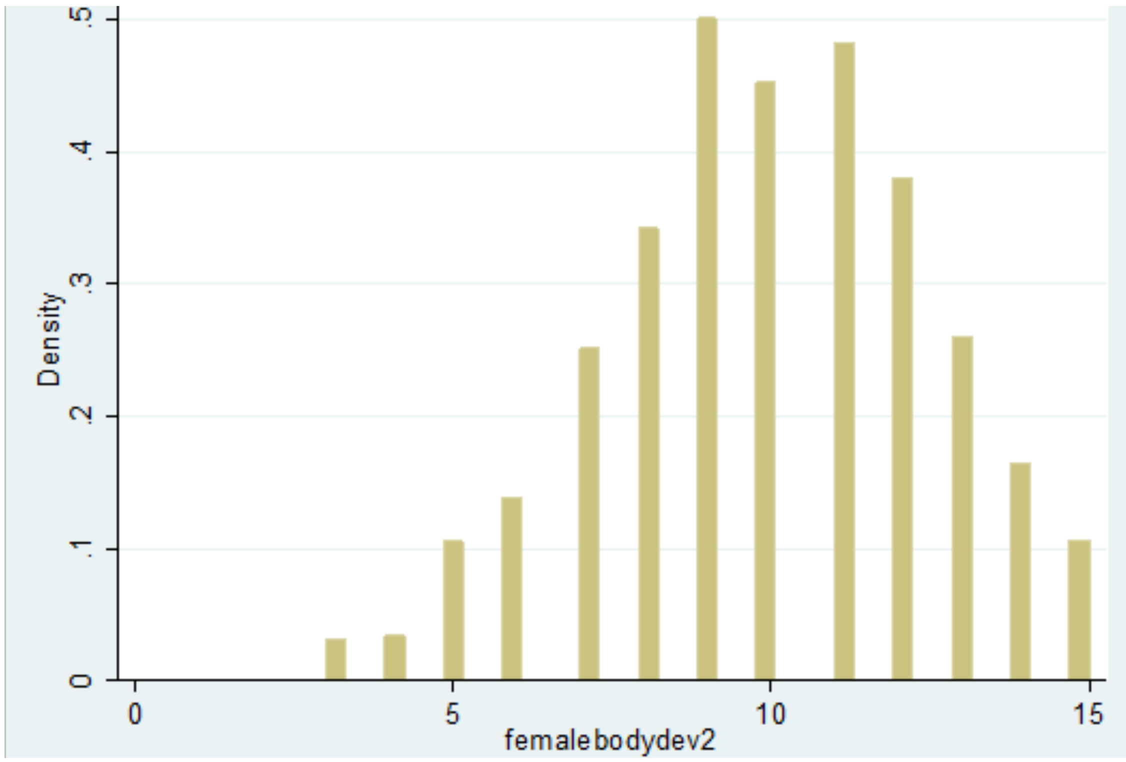

Figure 4: Histogram of Men's Self-Perceived Body Development Index Distribution

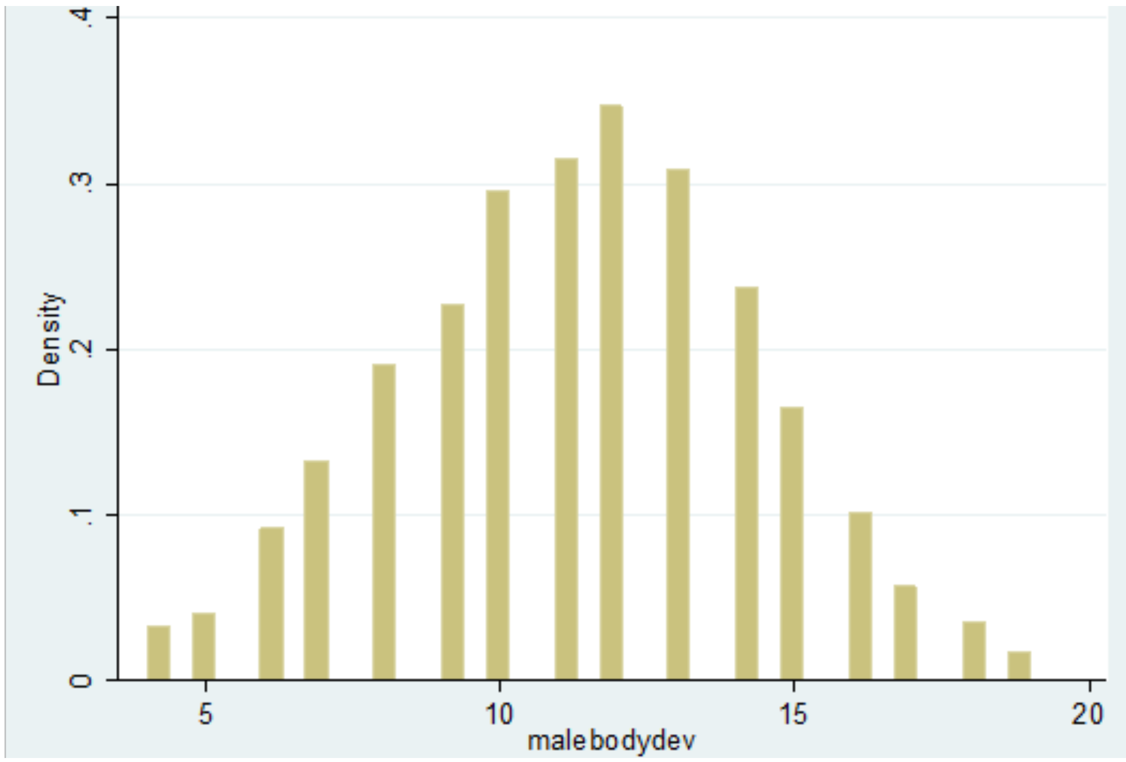

Figure 5: Prospective Structural Equation Model (SEM)

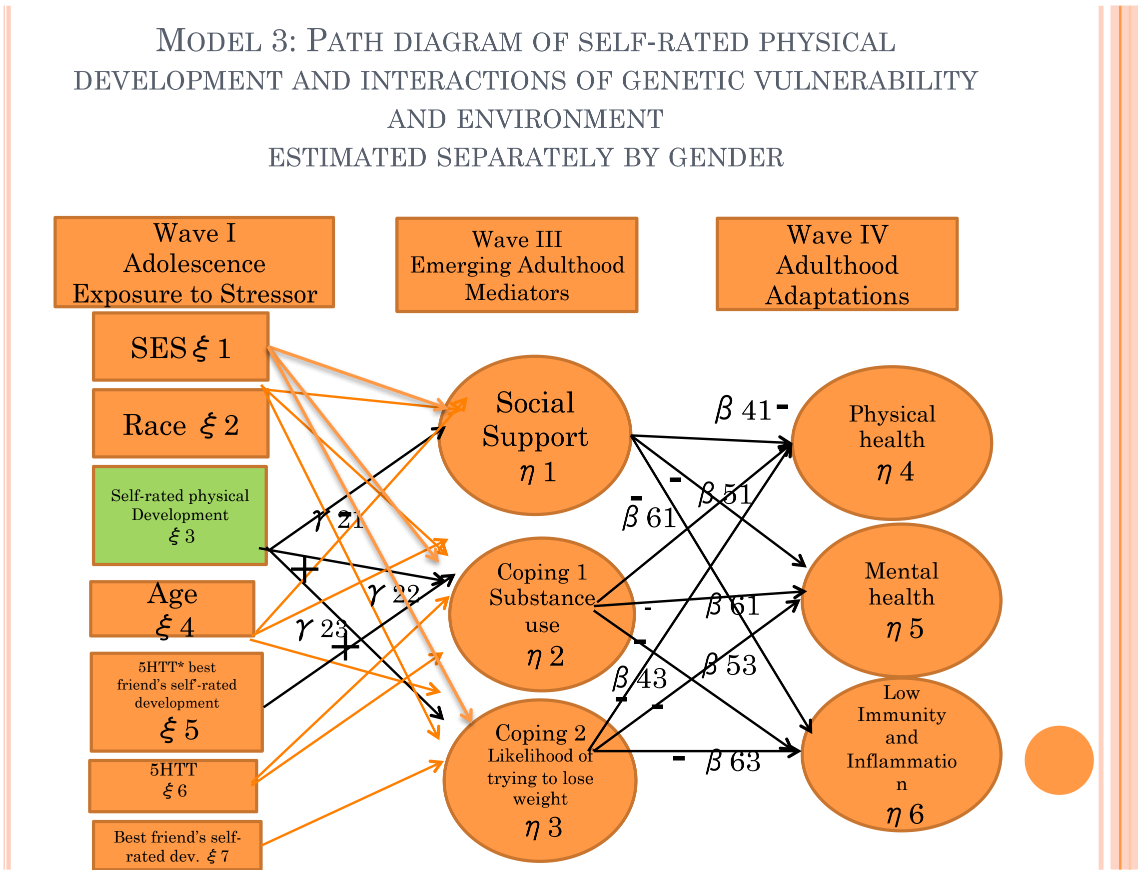

Table 1A. Means and Proportions for All Waves I, III, and IV Analysis Variables, Men

Analysis Variable	N	Mean	Standard Deviation	Min.	Max.
Self-Perceived Body Development (Measured at Wave I)					
Male body development index[1]	9092	11.395	3.000	4	19
Self-perceived underarm hair development	9092	3.350	1.235	1	5
Self-perceived facial hair development	9092	3.281	1.083	1	4
Self-perceived voice level	9092	3.420	1.110	1	5
Self-perceived overall development	9092	3.333	1.200	1	5
Bottom quartile	9092	0.261	0.439	0	1
Top quartile	9092	0.241	0.427	0	1
Bottom decile	9092	0.101	0.302	0	1
Top decile	9092	0.099	0.270	0	1
Bottom 5^{th}percentile	9092	0.055	0.229	0	1
Top 5^{th} percentile	9092	0.044	0.198	0	1
Health, Health Care, and Socioeconomic Status (Measured at Wave IV)					
Self-rated health status[2]	6392	3.708***	0.903	1	5
Lifetime depression diagnosis (yes = 1)	6392	0.124***	0.329	0	1
CES-D depression scale	6392	2.293***	2.326	0	15
Psychological of emotional counseling,	6392	0.073***	0.259	0	1
past 12 months	6392	29.01		5.4	80.4
Body Mass Index (BMI)			6.608		
Demographics (Measured at Wave I)					
White	9092	0.642***	0.479	0	1
Black	9092	0.190***	0.392	0	1
Other race	9092	0.166	0.372	0	1
Hispanic Ethnicity	9092	0.164	0.370	0	1
Age (Wave IV)	6392	28.610***	1.783	24	34
Born in the U.S.	9092	0.920	0.269	0	1
Family and Social Support (Measured at Waves I, III, and IV)					
Residential mother	8520	0.944	0.229	0	1
Residential father	8520	0.743	0.436	0	1
Number of children in the household	8520	1.229	1.176	0	10
Oldest child in the household	8520	0.298	0.458	0	1
2 biological parents in the household	8520	0.567	0.495	0	1
Single father household	8520	0.037	0.189	0	1
Single mother household	8520	0.182	0.386	0	1
Residential mother white collar	8520	0.508	0.499	0	1

Residential mother works	8520	0.817	0.386	0	1
Residential father white collar	8520	0.274	0.446	0	1
Residential father works	8520	0.704	0.456	0	1
Parents receive welfare	8520	0.090	0.286	0	1
Ever married	6392	0.114***	0.318	0	1
Education and Earnings (Measured at Wave III and IV)					
Currently in school	6392	0.135***	0.342	0	1
Cumulative high school GPA	4305	2.740	0.785	0	4
Picture Vocabulary Test (PVT)	6392	101.128	14.625	9	137
Vocational training	6392	0.096	0.295	0	1
Some college	6392	0.632	0.482	0	1
Completed college	6392	0.288	0.453	0	1
Some advanced or advanced degree	6392	0.023	0.150	0	1
Annual earnings	6392	42373.5 ***	50009.79	1	999996
Health and Lifestyle (Measured at Waves III and IV)					
5HTT short allele	6392	0.589	0.492	0	1
MAOA High transcription allele	6392	0.529	0.499	0	1
Regular smoker, past 30 days[3]	6392	0.238***	0.426	0	1
Marijuana user, past year	6392	0.168	0.374	0	1
Lifetime other drug use[4]	6392	0.382***	0.486	0	1
Number of lifetime Chronic conditions[5]	6392	0.403***	0.707	0	6
Number of lifetime chronic conditions (without depression)	6392	0.289	0.525	0	5
Employment-sponsored health insurance	6520	0.566	0.496	0	1
Other health insurance [6]	6520	0.186	0.388	0	1
No health insurance	6520	0.241	0.427	0	1
Weekly physical activity[7]	6379	0.872	0.333	0	1

Statistically significant gender difference, *** = p<0.01, ** = p<0.05, * = p<0.1

[1] The self-perceived body development index is a composite score for self-perceived underarm hair development, self-perceived facial hair development, self-perceived voice level, and self-perceived advanced physical development (ranging from 4-19)
[2] Five category Likert scale with 1 = "poor" and 5 = "excellent."
[3] Regular smokers include individuals who have smoked at least one cigarette per day during the past 30 days, at the time of the interview.
[4] Other drugs include cocaine, crystal meth, LSD, PCP, ecstasy, hallucinogenic mushrooms, inhalants, ice, heroin, steroids, and non-medical use of prescription medication.

[5] This measure is a count of the following lifetime chronic health conditions: asthma, cancer/leukemia, depression, hypertension, high cholesterol, and epilepsy/seizures.
[6] This dummy variable includes individuals who have health insurance coverage from one of the following sources: parents' insurance, husband of wife's insurance, union insurance, school insurance, active duty military, private insurance, Medicaid, or Indian Health Service.
[7] This dummy variable measures past week physical activity events including: bicycle, skateboarding, dancing, hiking, hunting, yard work, roller blading, roller skating, downhill skiing, snowboarding, racquet sports, aerobics, football, soccer, basketball, lacrosse, rugby, field hockey, ice hockey, running, wrestling, swimming, cross-country skiing, martial arts, gymnastics, weight-lifting, strength training, fishing, golf, bowling, baseball, and softball.

Table 1B. Means and Proportions for All Waves I, III, and IV Analysis Variables, Women

Analysis Variable	N	Mean	Standard Deviation	Min.	Max.
Self-perceived Body Development (Measured at Wave I)					
Self-perceived female body development index[1]	9145	9.931	2.565	3	15
Self -perceived breast development	9145	3.332	1.101	1	5
Self-perceived curves development	9145	3.363	1.083	1	5
Self- perceived overall development	9145	3.235	1.100	1	5
Bottom quartile	9145	0.278	0.448	0	1
Top quartile	9145	0.163	0.370	0	1
Bottom decile	9145	0.095	0.293	0	1
Top decile	9145	0.085	0.277	0	1
Bottom 5th percentile	9145	0.053	0.223	0	1
Top 5th percentile	9145	0.034	0.178	0	1
Health, Health Care, and Socioeconomic Status (Measured at Wave IV)					
Self-rated health status[2]	7190	3.638***	0.911	1	5
Lifetime depression diagnosis (yes=1)	7190	0.236***	0.425	0	1
CES-D depression scale	7190	2.822***	2.657	0	15
Psychological or emotional counseling, past 12 months	7190	0.119	0.323	0	1
Body Mass Index (BMI)	7190	28.98	7.89	14.4	80.5
Demographics (Measured at Wave I)					
White	9132	0.620***	0.485	0	1
Black	9132	0.221***	0.419	0	1
Other race	9132	0.160	0.372	0	1
Hispanic Ethnicity	9123	0.167	0.372	0	1
Age (Wave IV)	7190	28.337***	1.761	24	34
Born in the U.S.	9132	0.909	0.288	0	1
Family and Social Support (Measured at Waves I, III, and IV)					
Residential mother	8517	0.945	0.226	0	1
Residential father	8517	0.681	0.46	0	1

			4		
Number of children in the household	8517	1.306	1.268	0	9
Respondent is the oldest child in the household	8517	0.291	0.454	0	1
2 biological parents in the household	8517	0.532	0.499	0	1
Single father household	8517	0.028	0.164	0	1
Single mother household	8517	0.219	0.414	0	1
Residential mother white collar	8517	0.478	0.499	0	1
Residential mother works	8517	0.803	0.398	0	1
Residential father white collar	8517	0.242	0.428	0	1
Residential father works	8517	0.647	0.478	0	1
Parents receive welfare	8517	0.115	0.319	0	1
Ever married	9145	0.152	0.359	0	1
Education and Earnings (Measured at Waves III and IV)					
Currently in School	7190	0.154**	0.361	0	1
Cumulative high school GPA	8517	2.741	0.785	0	4
Picture Vocabulary Test (PVT)	8517				
Vocational training	7190	0.077	0.266	0	1
Some college	7190	0.718	0.450	0	1
Completed college	7190	0.369	0.482	0	1
Some advanced or professional degree	7190	0.025	0.157	0	1
Annual earnings	7190	29562.24***	38211.06	0	999996
Health and Lifestyle (Measured at Wave IV)					
5HTT short allele	7190	0.456	0.498	0	1
MAOA high transcription allele	7190	0.585	0.493	0	1
Regular smoker, past 30days[3]	7190	0.188	0.392	0	1
Marijuana user, past year	7190	0.089	0.286	0	1
Lifetime other drug use[4]	7190	0.215	0.411	0	1
Number of lifetime chronic conditions[5]	7190	0.518***	0.751	0	5
Number of lifetime chronic conditions without depression	7190	0.315	0.566	0	4
Employment-	7190	0.486	0.499	0	1

sponsored insurance					
Other health insurance[6]	7190	0.338	0.440	0	1
No health insurance	7190	0.168	0.372	0	1
Weekly physical activity[7]	7190	0.834	0.371	0	1

Statistically significant gender difference, *** = p<0.01, ** = p<0.05, * = p<0.1

[1] The self-perceived body development index is a composite score for self-perceived underarm hair development, self-perceived breast development, self-perceived curves development, and self-perceived advanced physical development (ranging from 3-15)
[2] Five category Likert scale with 1 = "poor" and 5 = "excellent."
[3] Regular smokers include individuals who have smoked at least one cigarette per day during the past 30 days, at the time of the interview.
[4] Other drugs include cocaine, crystal meth, LSD, PCP, ecstasy, hallucinogenic mushrooms, inhalants, ice, heroin, steroids, and non-medical use of prescription medication.
[5] This measure is a count of the following lifetime chronic health conditions: asthma, cancer/leukemia, depression, hypertension, high cholesterol, and epilepsy/seizures.
[6] This dummy variable includes individuals who have health insurance coverage from one of the following sources: parents' insurance, husband of wife's insurance, union insurance, school insurance, active duty military, private insurance, Medicaid, or Indian Health Service.
[7] This dummy variable measures past week physical activity events including: bicycle, skateboarding, dancing, hiking, hunting, yard work, roller blading, roller skating, downhill skiing, snowboarding, racquet sports, aerobics, football, soccer, basketball, lacrosse, rugby, field hockey, ice hockey, running, wrestling, swimming, cross-country skiing, martial arts, gymnastics, weight-lifting, strength training, fishing, golf, bowling, baseball, and softball.

Table 2A. Ordered Probit Regression Results Predicting Self-Rated Health at Wave IV, Women (N=7,190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Self-perceived body development index	-0.0159***	-0.0159***	-0.0239***	-0.0256***	-0.0139**
	(0.00569)	(0.00569)	(0.00591)	(0.00598)	(0.00607)
Age (w4)			0.0198**	0.0202**	0.0148
			(0.00920)	(0.00977)	(0.00928)
Hispanic ethnicity			-0.0718	-0.0588	-0.129**
			(0.0697)	(0.0662)	(0.0589)
African American			-0.174***	-0.209***	-0.287***
			(0.0388)	(0.0401)	(0.0419)
Other race			-0.233***	-0.249***	-0.284***
			(0.0722)	(0.0683)	(0.0704)
Born in the U.S.			-0.154***	-0.120**	-0.0624
			(0.0526)	(0.0491)	(0.0555)
Residential mother			0.112	0.115	0.206
			(0.162)	(0.164)	(0.152)
Residential father			-0.209*	-0.168	-0.125
			(0.107)	(0.108)	(0.113)
Children under age 18 in the household			-0.0133	0.00440	-0.00580
			(0.0133)	(0.0136)	(0.0141)
Oldest child			0.0105	-0.0257	-0.0208
			(0.0308)	(0.0291)	(0.0296)
Live with both biological parents			0.150***	0.0756	0.0199
			(0.0463)	(0.0467)	(0.0445)
Single father household			0.157	0.111	0.147
			(0.175)	(0.177)	(0.171)
Single mother household			0.0752	0.0433	0.0330
			(0.0639)	(0.0656)	(0.0649)
Residential mother white collar			0.141***	0.0695**	0.0679**
			(0.0322)	(0.0313)	(0.0330)
Residential mother employed			-0.0418	-0.0465	-0.0431
			(0.0428)	(0.0428)	(0.0429)
Residential father white collar			0.230***	0.101***	0.0914***
			(0.0380)	(0.0340)	(0.0341)
Residential father employed			0.188**	0.145	0.146
			(0.0905)	(0.0913)	(0.0968)
Residential parent received welfare			-0.156***	-0.0881**	-0.0455
			(0.0449)	(0.0442)	(0.0464)
Ever married			-0.0748*	0.0292	0.00479
			(0.0391)	(0.0410)	(0.0398)
Currently attending school				0.0481	0.0750**
				(0.0304)	(0.0317)
Vocational training				0.121**	0.104*
				(0.0575)	(0.0591)
Some college				0.174***	0.125***
				(0.0389)	(0.0422)
Completed college				0.447***	0.367***
				(0.0353)	(0.0353)

Advanced professional degree				0.0306	0.0332
				(0.0784)	(0.0782)
Annual earnings				0.0137***	0.00838*
				(0.00418)	(0.00450)
5HTT Short allele					-0.0485*
					(0.0257)
MAOA High transcription allele					-0.0147
					(0.0358)
Regular smoker, past 30 days					-0.264***
					(0.0416)
Marijuana user, past year					-0.0303
					(0.0504)
Lifetime other drug use					-0.0436
					(0.0374)
Number of lifetime chronic conditions					-0.367***
					(0.0200)
Employment sponsored health insurance					0.0308
					(0.0449)
Other health insurance					0.0885*
					(0.0462)
Physical activity					0.111***
					(0.0380)
Constant cut1	-2.452***	-2.452***	-2.023***	-1.707***	-2.053***
	(0.0772)	(0.0772)	(0.304)	(0.319)	(0.294)
Constant cut2	-1.456***	-1.456***	-1.020***	-0.682**	-0.950***
	(0.0589)	(0.0589)	(0.292)	(0.308)	(0.281)
Constant cut3	-0.325***	-0.325***	0.151	0.527*	0.327
	(0.0612)	(0.0612)	(0.291)	(0.308)	(0.280)
Constant cut4	0.757***	0.757***	1.262***	1.670***	1.517***
	(0.0611)	(0.0611)	(0.294)	(0.311)	(0.283)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 2A1. Marginal Effects of Wave I Self-Perceived Body Development on Wave IV Self-Rated Health,
Women (N = 7,910)

Pr (Self-Rated Health Category)	**dy/dx Poor self-rated health**	**dy/dx Fair self-rated health**	**dy/dx Good self-rated health**	**dy/dx Very good self-rated health**	**dy/dx Excellent self-rated health**
Self-perceived body development index	0.000203**	0.00168**	0.00355**	-0.00208**	-0.00335**
	(9.38e-05)	(0.000754)	(0.00154)	(0.000910)	(0.00148)

Notes: Marginal effects and standard errors (in parentheses).
Estimates are based on Model 5, which uses ordered probit regression.
*** p<0.01, ** p<0.05, * p<0.1

Table 2B. Ordered Probit Regression Results Predicting Self-Rated Health at Wave IV, Women (N = 7,190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Bottom quartile	-0.00875	0.0115	0.0393	0.0524*	0.0162
	(0.0290)	(0.0301)	(0.0282)	(0.0282)	(0.0295)
Top quartile	-0.157***	-0.158***	-0.149***	-0.140***	-0.0953*
	(0.0413)	(0.0425)	(0.0450)	(0.0460)	(0.0496)
Age (w4)		0.00964	0.0193**	0.0196**	0.0145
		(0.00909)	(0.00915)	(0.00971)	(0.00924)
Hispanic ethnicity		-0.132*	-0.0728	-0.0601	-0.130**
		(0.0681)	(0.0698)	(0.0663)	(0.0589)
African American		-0.228***	-0.168***	-0.203***	-0.283***
		(0.0463)	(0.0395)	(0.0408)	(0.0426)
Other race		-0.233***	-0.232***	-0.247***	-0.284***
		(0.0693)	(0.0728)	(0.0689)	(0.0707)
Born in the U.S.		-0.157***	-0.155***	-0.122**	-0.0625
		(0.0420)	(0.0526)	(0.0494)	(0.0557)
Residential mother			0.111	0.115	0.203
			(0.162)	(0.164)	(0.152)
Residential father			-0.204*	-0.163	-0.122
			(0.107)	(0.108)	(0.112)
Children under age 18 in household			-0.0113	0.00630	-0.00458
			(0.0131)	(0.0134)	(0.0139)
Oldest child			0.00819	-0.0280	-0.0222
			(0.0307)	(0.0290)	(0.0295)
Live with both biological parents			0.148***	0.0742	0.0180
			(0.0464)	(0.0467)	(0.0447)
Single father household			0.155	0.110	0.144
			(0.173)	(0.176)	(0.170)
Single mother household			0.0764	0.0449	0.0330
			(0.0637)	(0.0652)	(0.0646)
Residential mother white collar (w1)			0.141***	0.0694**	0.0680**
			(0.0320)	(0.0312)	(0.0329)
Residential mother employed			-0.0433	-0.0479	-0.0440
			(0.0426)	(0.0426)	(0.0429)
Residential father white collar			0.227***	0.0993***	0.0903***
			(0.0381)	(0.0340)	(0.0342)
Residential father employed			0.186**	0.144	0.146
			(0.0911)	(0.0919)	(0.0969)
Residential parent received welfare			-0.156***	-0.0878**	-0.0451
			(0.0449)	(0.0443)	(0.0465)
Ever married			-0.0755*	0.0280	0.00425
			(0.0394)	(0.0413)	(0.0400)
Currently attending school				0.0487	0.0760**
				(0.0304)	(0.0317)
Vocational training				0.120**	0.104*
				(0.0577)	(0.0594)
Some college				0.172***	0.124***
				(0.0389)	(0.0422)
Completed college				0.445***	0.365***
				(0.0354)	(0.0352)

Advanced professional degree				0.0337	0.0357
				(0.0781)	(0.0777)
Annual earnings				0.0137***	0.00836*
				(0.00420)	(0.00451)
5HTT Short allele					-0.0479*
					(0.0256)
MAOA High transcription allele					-0.0146
					(0.0358)
Regular smoker, past 30 days					-0.265***
					(0.0417)
Marijuana user, past year					-0.0318
					(0.0507)
Lifetime other drug use					-0.0452
					(0.0372)
Number of lifetime chronic conditions					-0.367***
					(0.0201)
Employment sponsored health insurance					0.0299
					(0.0450)
Other health insurance					0.0865*
					(0.0465)
Weekly physical activity					0.109***
					(0.0379)
Constant cut1	-2.324***	-2.325***	-1.811***	-1.475***	-1.940***
	(0.0530)	(0.272)	(0.308)	(0.324)	(0.297)
Constant cut2	-1.328***	-1.318***	-0.809***	-0.451	-0.837***
	(0.0322)	(0.260)	(0.296)	(0.313)	(0.283)
Constant cut3	-0.195***	-0.173	0.363	0.758**	0.440
	(0.0344)	(0.255)	(0.295)	(0.312)	(0.281)
Constant cut4	0.888***	0.922***	1.474***	1.900***	1.631***
	(0.0275)	(0.258)	(0.297)	(0.314)	(0.283)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 2B1. Marginal Effects of Self-Perceived Body Development on Self-Rated Health, Women (N = 7,910)

Pr (Self-Rated Health Category)	**dy/dx Poor self-rated health**	**dy/dx Fair self-rated health**	**dy/dx Good self-rated health**	**dy/dx Very good self-rated health**	**dy/dx Excellent self-rated health**
Bottom quartile of self-perceived body development	-0.000236	-0.00196	-0.00416	0.00241	0.00394
	(0.000433)	(0.00353)	(0.00757)	(0.00434)	(0.00720)
Top quartile of self-perceived body development	0.00152*	0.0120*	0.0239**	-0.0152*	-0.0223**
	(0.000860)	(0.00669)	(0.0122)	(0.00846)	(0.0112)

Notes: Marginal effects and standard errors (in parentheses).
Estimates are based on Model 5, which uses ordered probit regression.
*** p<0.01, ** p<0.05, * p<0.1

Table 2C. Ordered Probit Regression Results Predicting Self-Rated Health, Women (N = 7,190)					
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Bottom decile of self-perceived body development	-0.103***	-0.0998**	-0.0569	-0.0473	-0.0830*
	(0.0384)	(0.0398)	(0.0414)	(0.0422)	(0.0444)
Top decile of self-perceived body development	-0.185***	-0.184***	-0.169***	-0.192***	-0.148**
	(0.0527)	(0.0556)	(0.0589)	(0.0595)	(0.0605)
Age (w4)		-0.00801	-0.00167	-0.000365	-0.00543
		(0.00732)	(0.00767)	(0.00767)	(0.00764)
Hispanic ethnicity		-0.109*	-0.0613	-0.0305	-0.0939*
		(0.0596)	(0.0594)	(0.0570)	(0.0499)
African American		-0.129***	-0.0810***	-0.0887***	-0.159***
		(0.0333)	(0.0277)	(0.0287)	(0.0291)
Other race		-0.228***	-0.234***	-0.250***	-0.298***
		(0.0652)	(0.0667)	(0.0612)	(0.0642)
Born in the U.S.		-0.245***	-0.265***	-0.225***	-0.154***
		(0.0374)	(0.0474)	(0.0493)	(0.0484)
Residential mother			0.198	0.206	0.242**
			(0.137)	(0.134)	(0.119)
Residential father			-0.193***	-0.165**	-0.139*
			(0.0719)	(0.0718)	(0.0749)
Children under age 18 in household			-0.000914	0.0101	-0.00240
			(0.00989)	(0.00999)	(0.00982)
Oldest child			0.0103	-0.0108	0.000289
			(0.0242)	(0.0231)	(0.0224)
Live with both biological parents			0.119***	0.0532*	0.00795
			(0.0316)	(0.0318)	(0.0296)
Single father household			0.211	0.189	0.184
			(0.141)	(0.138)	(0.131)
Single mother household			0.0714	0.0492	0.0266
			(0.0472)	(0.0479)	(0.0500)
Residential mother white collar (w1)			0.108***	0.0530**	0.0597**
			(0.0246)	(0.0223)	(0.0248)
Residential mother employed			-0.0284	-0.0383	-0.0493
			(0.0342)	(0.0362)	(0.0345)
Residential father white collar			0.188***	0.0762***	0.0678***
			(0.0260)	(0.0245)	(0.0250)
Residential father employed			0.190***	0.173***	0.157***
			(0.0543)	(0.0544)	(0.0572)
Residential parent received welfare			-0.120***	-0.0692	-0.0300
			(0.0463)	(0.0444)	(0.0446)
Ever married			-0.0690***	0.00685	-0.00859
			(0.0267)	(0.0256)	(0.0267)
Currently attending school				0.0520**	0.0717***
				(0.0225)	(0.0238)
Vocational training				0.0932**	0.106**
				(0.0469)	(0.0483)
Some college				0.103***	0.0846***
				(0.0295)	(0.0319)
Completed college				0.401***	0.323***
				(0.0272)	(0.0263)
Advanced professional degree				0.105*	0.0919
				(0.0618)	(0.0600)

Annual earnings				0.0171***	0.00830**
				(0.00378)	(0.00392)
5HTT Short allele					-0.00219
					(0.0194)
MAOA High transcription allele					-0.0538**
					(0.0224)
Regular smoker, past 30 days					-0.239***
					(0.0272)
Marijuana user, past year					-0.0699**
					(0.0285)
Lifetime other drug use					-0.0724***
					(0.0266)
Number of lifetime chronic conditions					-0.372***
					(0.0150)
Employment sponsored health insurance					0.0383
					(0.0287)
Other health insurance					0.0714**
					(0.0329)
Weekly physical activity					0.140***
					(0.0311)
Constant cut1	-2.370***	-2.931***	-2.449***	-2.101***	-2.594***
	(0.0397)	(0.208)	(0.268)	(0.274)	(0.246)
Constant cut2	-1.346***	-1.896***	-1.416***	-1.050***	-1.475***
	(0.0268)	(0.201)	(0.264)	(0.272)	(0.246)
Constant cut3	-0.215***	-0.754***	-0.254	0.139	-0.223
	(0.0278)	(0.197)	(0.262)	(0.270)	(0.244)
Constant cut4	0.859***	0.330	0.847***	1.265***	0.947***
	(0.0217)	(0.201)	(0.266)	(0.274)	(0.248)

Robust standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 2C1. Marginal Effects of Self-Perceived Body Development on Self-Rated Health, Women (N = 7,910)

Pr (Self-Rated Health Category)	dy/dx Poor self-rated health	dy/dx Fair self-rated health	dy/dx Good self-rated health	dy/dx Very good self-rated health	dy/dx Excellent self-rated health
Bottom decile of self-perceived body development	0.00125*	0.0105*	0.0208*	-0.0120*	-0.0205*
	(0.000732)	(0.0058)	(0.0109)	(0.00696)	(0.0106)
Top decile of self-perceived body development	0.00240**	0.0194**	0.0365***	-0.0228**	-0.0355***
	(0.00120)	(0.0088)	(0.0141)	(0.0105)	(0.0136)

Notes: Marginal effects and standard errors (in parentheses). Estimates are based on Model 5, which uses ordered probit regression.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 2D. Ordered Probit Regression Results Predicting Self-Rated Health, Women (N = 7,190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Bottom 5th percentile	-0.108*	-0.109*	-0.0565	-0.0361	-0.0994
	(0.0557)	(0.0585)	(0.0619)	(0.0635)	(0.0619)
Top 5th percentile	-0.201**	-0.220***	-0.220**	-0.234***	-0.149
	(0.0811)	(0.0843)	(0.0886)	(0.0888)	(0.0912)
Age (w4)		-0.00833	-0.00191	-0.000673	-0.00568
		(0.00728)	(0.00767)	(0.00768)	(0.00766)
Hispanic ethnicity		-0.109*	-0.0611	-0.0305	-0.0939*
		(0.0594)	(0.0592)	(0.0567)	(0.0497)
African American		-0.130***	-0.083***	-0.0905***	-0.160***
		(0.0332)	(0.0275)	(0.0285)	(0.0290)
Other race		-0.227***	-0.233***	-0.249***	-0.297***
		(0.0645)	(0.0661)	(0.0606)	(0.0637)
Born in the U.S.		-0.246***	-0.266***	-0.227***	-0.156***
		(0.0373)	(0.0472)	(0.0491)	(0.0484)
Residential mother			0.198	0.206	0.243**
			(0.136)	(0.134)	(0.119)
Residential father			-0.196***	-0.168**	-0.141*
			(0.0718)	(0.0718)	(0.0748)
Children under age 18 in household			-0.00115	0.00984	-0.00258
			(0.00986)	(0.00998)	(0.00982)
Oldest child			0.00899	-0.0121	-0.000643
			(0.0242)	(0.0232)	(0.0224)
Live with both biological parents			0.120***	0.0549*	0.00956
			(0.0312)	(0.0315)	(0.0293)
Single father household			0.211	0.190	0.185
			(0.141)	(0.138)	(0.130)
Single mother household			0.0716	0.0494	0.0278
			(0.0471)	(0.0478)	(0.0501)
Residential mother white collar (w1)			0.108***	0.0534**	0.0601**
			(0.0246)	(0.0223)	(0.0249)
Residential mother employed			-0.0292	-0.0390	-0.0500
			(0.0342)	(0.0363)	(0.0346)
Residential father white collar			0.188***	0.0772***	0.0681***
			(0.0261)	(0.0247)	(0.0251)
Residential father employed			0.192***	0.175***	0.159***
			(0.0537)	(0.0537)	(0.0567)
Residential parent received welfare			-0.121***	-0.0696	-0.0303
			(0.0462)	(0.0443)	(0.0445)
Ever married			-0.071***	0.00412	-0.0104
			(0.0267)	(0.0257)	(0.0268)
Currently attending school				0.0503**	0.0700***
				(0.0226)	(0.0239)
Vocational training				0.0922*	0.106**
				(0.0471)	(0.0485)
Some college				0.102***	0.0832***
				(0.0296)	(0.0319)
Completed college				0.401***	0.322***
				(0.0274)	(0.0265)
Advanced professional degree				0.103*	0.0911
				(0.0619)	(0.0603)
Annual earnings				0.0174***	0.00842**

				(0.00373)	(0.00390)
5HTT Short allele					-0.00178
					(0.0195)
MAOA High transcription allele					-0.0561**
					(0.0224)
Regular smoker, past 30 days					-0.239***
					(0.0271)
Marijuana user, past year					-0.0693**
					(0.0285)
Lifetime other drug use					-0.071***
					(0.0265)
Number of lifetime chronic conditions					-0.373***
					(0.0151)
Employment sponsored health insurance					0.0388
					(0.0286)
Other health insurance					0.0704**
					(0.0329)
Weekly physical activity					0.141***
					(0.0311)
Constant cut1	-2.362***	-2.934***	-2.453***	-2.105***	-2.596***
	(0.0395)	(0.207)	(0.268)	(0.275)	(0.247)
Constant cut2	-1.338***	-1.900***	-1.420***	-1.055***	-1.477***
	(0.0270)	(0.199)	(0.264)	(0.273)	(0.247)
Constant cut3	-0.209***	-0.758***	-0.258	0.135	-0.225
	(0.0278)	(0.196)	(0.262)	(0.271)	(0.245)
Constant cut4	0.865***	0.326	0.843***	1.260***	0.944***
	(0.0214)	(0.200)	(0.266)	(0.275)	(0.249)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 2D1. Marginal Effects of Self-Perceived Body Development on Self-Rated Health, Women (N = 7,910)

Pr (Self-Rated Health Category)	dy/dx Poor self-rated health	dy/dx Fair self-rated health	dy/dx Good self-rated health	dy/dx Very good self-rated health	dy/dx Excellent self-rated health
Bottom 5th percentile self-perceived body development	0.000717	0.00469	0.00868	-0.00461	-0.00948
	(0.00131)	(0.00844)	(0.0151)	(0.00849)	(0.0164)
Top 5th percentile self-perceived body development	0.00592**	0.0341**	0.0526***	-0.0366**	-0.0561***
	(0.00299)	(0.0146)	(0.0179)	(0.0168)	(0.0187)

Notes: Marginal effects and standard errors (in parentheses). Estimates are based on Model 5, which uses ordered probit regression.
*** p<0.01, ** p<0.05, * p<0.1

Table 3A. Probit Regression Results Predicting the Likelihood of Lifetime Depression Diagnosis, Women (N = 7,190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Female body development index	0.0330***	0.0290***	0.0297***	0.0305***	0.0147**
	(0.00606)	(0.00615)	(0.00675)	(0.00669)	(0.00714)
	[0.0102***]	[0.00883***]	[0.00899***]	[0.0091***]	[0.0043**]
Age (w4)		-0.0218**	-0.0354***	-0.0329***	-0.0237**
		(0.00900)	(0.00936)	(0.00951)	(0.0101)
Hispanic ethnicity		-0.217***	-0.237***	-0.242***	-0.179***
		(0.0634)	(0.0665)	(0.0646)	(0.0608)
African American		-0.290***	-0.359***	-0.352***	-0.218***
		(0.0423)	(0.0513)	(0.0534)	(0.0556)
Other race		-0.104**	-0.0814	-0.0796	-0.0464
		(0.0498)	(0.0519)	(0.0511)	(0.0561)
Born in the U.S.		0.186**	0.157*	0.138	0.0495
		(0.0816)	(0.0879)	(0.0907)	(0.0925)
Residential mother			0.135	0.130	0.202
			(0.243)	(0.244)	(0.244)
Residential father			0.249**	0.229*	0.337**
			(0.127)	(0.127)	(0.138)
Children under age 18 in household			0.0121	0.00159	0.0201
			(0.0149)	(0.0149)	(0.0159)
Oldest child			0.0743*	0.0960**	0.113***
			(0.0384)	(0.0391)	(0.0427)
Live with both biological parents			-0.211***	-0.161***	-0.114**
			(0.0531)	(0.0535)	(0.0559)
Single father household			0.0289	0.0582	0.145
			(0.254)	(0.256)	(0.254)
Single mother household			0.0226	0.0497	0.168*
			(0.0831)	(0.0834)	(0.0886)
Residential mother white collar (w1)			-0.0470	-0.000700	-0.00627
			(0.0399)	(0.0405)	(0.0414)
Residential mother employed			-0.0109	-0.00758	-0.00455
			(0.0536)	(0.0523)	(0.0552)
Residential father white collar			-0.0625	0.0231	0.00507
			(0.0455)	(0.0475)	(0.0493)
Residential father employed			-0.161	-0.140	-0.152
			(0.101)	(0.102)	(0.107)
Residential parent received welfare			0.105*	0.0620	0.0210
			(0.0572)	(0.0595)	(0.0585)
Ever married			0.0979**	0.0277	0.129***
			(0.0459)	(0.0475)	(0.0495)
Currently attending school				0.0961**	0.0777*
				(0.0414)	(0.0444)
Vocational training				-0.0250	0.000817
				(0.0683)	(0.0716)
Some college				-0.109**	-0.0688
				(0.0541)	(0.0586)

Completed college				-0.250***	-0.133***
				(0.0449)	(0.0463)
Advanced professional degree				-0.0619	-0.0677
				(0.0822)	(0.0884)
Annual earnings				-0.0207***	-0.0111
				(0.00579)	(0.00687)
5HTT Short allele					-0.0490
					(0.0377)
MAOA High transcription allele					0.00927
					(0.0359)
Regular smoker, past 30 days					0.186***
					(0.0467)
Marijuana user, past year					0.159**
					(0.0663)
Lifetime other drug use					0.517***
					(0.0403)
Number of Lifetime chronic conditions					0.382***
					(0.0354)
Employment sponsored health insurance					-0.103*
					(0.0600)
Other health insurance					0.0119
					(0.0532)
Weekly physical activity					-0.140***
					(0.0383)
Constant	-1.050***	-0.459*	-0.162	0.0607	-0.559
	(0.0716)	(0.275)	(0.387)	(0.398)	(0.413)

Robust standard errors in parentheses, Marginal effects in brackets
*** p<0.01, ** p<0.05, * p<0.1

Table 3B. Probit Regression Results Predicting the Likelihood of Lifetime Depression Diagnosis, Women (N = 7,190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Bottom Quartile	-0.0738**	-0.0424	-0.0799*	-0.0907**	-0.0315
	(0.0373)	(0.0378)	(0.0408)	(0.0412)	(0.0430)
	[-0.0224**]	[-0.0128]	[-0.0238**]	[-0.0268**]	[-0.00907]
Top Quartile	0.203***	0.215***	0.183***	0.177***	0.144***
	(0.0448)	(0.0480)	(0.0507)	(0.0503)	(0.0543)
	[0.0655***]	[0.0690***]	[0.0579***]	[0.0553***]	[0.0432**]
Age (w4)		-0.0222**	-0.0356***	-0.0331***	-0.0247**
		(0.00905)	(0.00944)	(0.00957)	(0.0102)
Hispanic ethnicity		-0.217***	-0.236***	-0.240***	-0.179***
		(0.0628)	(0.0663)	(0.0645)	(0.0606)
African American		-0.299***	-0.365***	-0.358***	-0.222***
		(0.0427)	(0.0515)	(0.0536)	(0.0555)
Other race		-0.105**	-0.0822	-0.0805	-0.0437
		(0.0492)	(0.0520)	(0.0510)	(0.0561)
Born in the U.S.		0.184**	0.155*	0.137	0.0457
		(0.0827)	(0.0889)	(0.0918)	(0.0933)
Residential mother			0.137	0.131	0.212
			(0.243)	(0.243)	(0.243)
Residential father			0.243*	0.225*	0.332**
			(0.127)	(0.127)	(0.138)
Children under age 18 in household			0.0102	-0.000286	0.0188
			(0.0150)	(0.0150)	(0.0160)
Oldest child			0.0764**	0.0980**	0.114***
			(0.0387)	(0.0394)	(0.0430)
Live with both biological parents			-0.207***	-0.157***	-0.109*
			(0.0528)	(0.0533)	(0.0555)
Single father household			0.0336	0.0626	0.157
			(0.256)	(0.258)	(0.254)
Single mother household			0.0205	0.0473	0.167*
			(0.0833)	(0.0835)	(0.0890)
Residential mother white collar (w1)			-0.0477	-0.00171	-0.00748
			(0.0399)	(0.0404)	(0.0414)
Residential mother employed			-0.00929	-0.00587	-0.00390
			(0.0534)	(0.0522)	(0.0552)
Residential father white collar			-0.0604	0.0247	0.00576
			(0.0454)	(0.0473)	(0.0492)
Residential father employed			-0.161	-0.140	-0.150
			(0.102)	(0.103)	(0.108)
Residential parent received welfare			0.106*	0.0630	0.0220
			(0.0573)	(0.0596)	(0.0586)
Ever married			0.0980**	0.0279	0.128***
			(0.0460)	(0.0477)	(0.0497)
Currently attending school				0.0956**	0.0763*
				(0.0415)	(0.0445)
Vocational training				-0.0254	-0.000479
				(0.0677)	(0.0710)

Some college				-0.108**	-0.0698
				(0.0540)	(0.0585)
Completed college				-0.248***	-0.130***
				(0.0453)	(0.0465)
Advanced professional degree				-0.0652	-0.0710
				(0.0824)	(0.0889)
Annual earnings				-0.0210***	-0.0113
				(0.00582)	(0.00690)
5HTT Short allele					-0.0500
					(0.0377)
MAOA High transcription allele					0.00960
					(0.0358)
Regular smoker, past 30 days					0.187***
					(0.0468)
Marijuana user, past year					0.159**
					(0.0666)
Lifetime other drug use					0.518***
					(0.0402)
Number of Lifetime chronic conditions					0.382***
					(0.0351)
Employment sponsored health insurance					-0.101*
					(0.0603)
Other health insurance					0.0157
					(0.0534)
Physical activity					-0.138***
					(0.0381)
Constant	-0.734***	-0.180	0.134	0.369	-0.408
	(0.0325)	(0.274)	(0.393)	(0.404)	(0.416)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3C. Probit Regression Results Predicting the Likelihood of Lifetime Depression Diagnosis, Women (N = 7,190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Bottom decile	0.140**	0.182***	0.179***	0.150***	0.233***
	(0.0547)	(0.0554)	(0.0555)	(0.0554)	(0.0566)
	[0.0393**]	[0.0511***]	[0.0499***]	[0.0407**]	[0.0629***]
Top decile	0.414***	0.418***	0.372***	0.359***	0.349***
	(0.0567)	(0.0571)	(0.0586)	(0.0597)	(0.0599)
	[0.127***]	[0.127***]	[0.111***]	[0.105***]	[0.0987***]
Age (w4)		-0.0148*	-0.0238***	-0.0203**	-0.0147*
		(0.00783)	(0.00830)	(0.00830)	(0.00835)
Hispanic ethnicity		-0.177***	-0.197***	-0.205***	-0.152***
		(0.0552)	(0.0594)	(0.0587)	(0.0572)
African American		-0.233***	-0.295***	-0.306***	-0.167***
		(0.0361)	(0.0435)	(0.0446)	(0.0474)
Other race		-0.157***	-0.135***	-0.137***	-0.102**
		(0.0474)	(0.0455)	(0.0481)	(0.0476)
Born in the U.S.		0.190***	0.169**	0.152**	0.0586
		(0.0596)	(0.0667)	(0.0665)	(0.0669)
Residential mother			0.183	0.162	0.215
			(0.176)	(0.177)	(0.178)
Residential father			0.127	0.126	0.199*
			(0.103)	(0.104)	(0.115)
Children under age 18 in household			-0.00271	-0.00877	0.00799
			(0.0117)	(0.0121)	(0.0124)
Oldest child			0.0530*	0.0660**	0.0655**
			(0.0284)	(0.0288)	(0.0324)
Live with both biological parents			-0.174***	-0.135***	-0.0927**
			(0.0430)	(0.0449)	(0.0448)
Single father household			-0.00308	0.00281	0.0887
			(0.190)	(0.191)	(0.190)
Single mother household			0.00120	0.0189	0.116*
			(0.0625)	(0.0630)	(0.0684)
Residential mother white collar			-0.0212	0.00872	-0.00790
			(0.0312)	(0.0313)	(0.0334)
Residential mother employed			-0.0639	-0.0535	-0.0443
			(0.0426)	(0.0421)	(0.0463)
Residential father white collar			-0.0255	0.0369	0.0294
			(0.0350)	(0.0363)	(0.0368)
Residential father employed			-0.105	-0.0990	-0.0999
			(0.0853)	(0.0863)	(0.0947)
Residential parent received welfare			0.103**	0.0731	0.0369
			(0.0524)	(0.0543)	(0.0548)
Ever married			0.123***	0.0632*	0.130***
			(0.0356)	(0.0362)	(0.0382)
Currently attending school				0.121***	0.0943**
				(0.0343)	(0.0371)
Vocational training				0.0633	0.0690
				(0.0501)	(0.0565)
Some college				-0.00812	0.0246
				(0.0378)	(0.0415)
Completed college				-0.205***	-0.0970**

				(0.0384)	(0.0393)
Advanced professional degree				-0.0324	-0.0152
				(0.0642)	(0.0674)
Annual earnings				-0.0434***	-0.0303***
				(0.00473)	(0.00508)
5HTT short allele					-0.0255
					(0.0331)
MAOA High transcription allele					0.107***
					(0.0285)
Regular smoker, past 30 days					0.183***
					(0.0358)
Marijuana user, past year					0.0294
					(0.0507)
Lifetime other drug use					0.428***
					(0.0303)
Number of lifetime chronic conditions					0.354***
					(0.0228)
Employment- sponsored health insurance					-0.142***
					(0.0445)
Other health insurance					0.0390
					(0.0433)
Weekly physical activity					-0.160***
					(0.0338)
Constant	-0.930***	-0.596**	-0.390	-0.0520	-0.711**
	(0.0290)	(0.232)	(0.314)	(0.321)	(0.339)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3D. Probit Regression Results Prediction the Likelihood of Lifetime Diagnosis, Women (N = 7,190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Bottom 5th percentile	0.147**	0.209***	0.203***	0.168**	0.266***
	(0.0732)	(0.0753)	(0.0741)	(0.0743)	(0.0748)
	[0.0415*]	[0.0596**]	[0.0572**]	[0.0463**]	[0.0732***]
Top 5th percentile	0.516***	0.538***	0.514***	0.496***	0.458***
	(0.0836)	(0.0848)	(0.0916)	(0.0906)	(0.0934)
	[0.165***]	[0.172***]	[0.162***]	[0.154***]	[0.136***]
Age (w4)		-0.0139*	-0.0233***	-0.0197**	-0.0143*
		(0.00781)	(0.00829)	(0.00829)	(0.00837)
Hispanic ethnicity		-0.176***	-0.198***	-0.206***	-0.152***
		(0.0553)	(0.0596)	(0.0589)	(0.0576)
African American		-0.230***	-0.292***	-0.303***	-0.164***
		(0.0360)	(0.0434)	(0.0446)	(0.0476)
Other race		-0.157***	-0.135***	-0.137***	-0.102**
		(0.0489)	(0.0463)	(0.0489)	(0.0485)
Born in the U.S.		0.194***	0.173***	0.156**	0.0628
		(0.0596)	(0.0666)	(0.0663)	(0.0668)
Residential mother			0.176	0.155	0.207
			(0.179)	(0.180)	(0.181)
Residential father			0.134	0.133	0.203*
			(0.103)	(0.104)	(0.115)
Children under age 18 in household			-0.00193	-0.00793	0.00881
			(0.0118)	(0.0122)	(0.0124)
Oldest child			0.0574**	0.0700**	0.0695**
			(0.0282)	(0.0287)	(0.0324)
Live with both biological parents			-0.177***	-0.138***	-0.0973**
			(0.0430)	(0.0448)	(0.0446)
Single father household			-0.0101	-0.00428	0.0805
			(0.192)	(0.193)	(0.193)
Single mother household			0.00119	0.0190	0.113*
			(0.0623)	(0.0627)	(0.0682)
Residential mother white collar (w1)			-0.0213	0.00809	-0.00857
			(0.0312)	(0.0313)	(0.0335)
Residential mother employed			-0.0613	-0.0511	-0.0416
			(0.0422)	(0.0418)	(0.0460)
Residential father white collar			-0.0262	0.0358	0.0284
			(0.0352)	(0.0366)	(0.0370)
Residential father employed			-0.110	-0.104	-0.104
			(0.0851)	(0.0862)	(0.0945)
Residential parent received welfare			0.104**	0.0739	0.0371
			(0.0527)	(0.0547)	(0.0553)
Ever married			0.129***	0.0703*	0.136***
			(0.0357)	(0.0363)	(0.0383)
Currently attending school				0.125***	0.0995***
				(0.0341)	(0.0368)
Vocational training				0.0646	0.0695
				(0.0501)	(0.0564)
Some college				-0.00558	0.0265
				(0.0380)	(0.0418)
Completed college				-0.204***	-0.0968**

				(0.0380)	(0.0388)
Advanced professional degree				-0.0304	-0.0168
				(0.0637)	(0.0670)
Annual earnings				-0.0437***	-0.0304***
				(0.00471)	(0.00505)
5HTT Short allele					-0.0274
					(0.0332)
MAOA High transcription allele					0.113***
					(0.0281)
Regular smoker, past 30 days					0.181***
					(0.0359)
Marijuana user, past year					0.0280
					(0.0508)
Lifetime other drug use					0.424***
					(0.0307)
Number of lifetime chronic conditions					0.354***
					(0.0230)
Employment sponsored health insurance					-0.143***
					(0.0445)
Other health insurance					0.0421
					(0.0432)
Physical activity					-0.162***
					(0.0337)
Constant	-0.917***	-0.616***	-0.396	-0.0610	-0.710**
	(0.0289)	(0.231)	(0.314)	(0.321)	(0.338)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3E. Ordered Probit Regression Results Predicting Wave IV Scores on the CES-D Depression Scale, Women (N=7,190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Self-perceived body development index	-0.00280	-0.00078	-0.000623	0.000991	-0.00894*
	(0.00451)	(0.00451)	(0.00459)	(0.00453)	(0.00471)
Age (w4)		-0.00621	-0.0129*	-0.0120	-0.00492
		(0.00789)	(0.00766)	(0.00757)	(0.00801)
Hispanic ethnicity		0.00660	-0.0274	-0.0386	0.0104
		(0.0592)	(0.0671)	(0.0657)	(0.0586)
African American		0.203***	0.123***	0.138***	0.226***
		(0.0359)	(0.0358)	(0.0337)	(0.0337)
Other race		0.113**	0.102*	0.108*	0.141**
		(0.0549)	(0.0591)	(0.0567)	(0.0584)
Born in the U.S.		0.0113	-0.00450	-0.0286	-0.0634
		(0.0513)	(0.0519)	(0.0505)	(0.0505)
Residential mother			-0.139	-0.141	-0.141
			(0.168)	(0.168)	(0.175)
Residential father			-0.000895	-0.0338	-0.00462
			(0.0837)	(0.0820)	(0.0882)
Children under age 18 in household			0.0241**	0.0122	0.0208*
			(0.0116)	(0.0112)	(0.0116)
Oldest child			0.00250	0.0225	0.0306
			(0.0272)	(0.0258)	(0.0269)
Live with both biological parents			-0.0612	-0.00994	0.0342
			(0.0440)	(0.0433)	(0.0476)
Single father household			-0.0598	-0.0188	0.0120
			(0.172)	(0.177)	(0.184)
Single mother household			-0.0845	-0.0585	-0.0137
			(0.0663)	(0.0633)	(0.0685)
Residential mother white collar (w1)			-0.0781***	-0.0303	-0.0452
			(0.0280)	(0.0291)	(0.0299)
Residential mother employed			-0.0443	-0.0352	-0.0131
			(0.0436)	(0.0443)	(0.0446)
Residential father white collar			-0.0409	0.0399	0.0355
			(0.0333)	(0.0339)	(0.0339)
Residential father employed			-0.171**	-0.134*	-0.160**
			(0.0718)	(0.0720)	(0.0716)
Residential parent received welfare			0.0962**	0.0471	0.0193
			(0.0426)	(0.0429)	(0.0431)
Ever married			0.0725*	0.00692	0.0608
			(0.0374)	(0.0392)	(0.0415)
Currently attending school				0.0674**	0.0341
				(0.0312)	(0.0341)
Vocational training				-0.207***	-0.196***
				(0.0629)	(0.0629)
Some college				-0.240***	-0.219***
				(0.0413)	(0.0439)
Completed college				-0.230***	-0.153***
				(0.0318)	(0.0339)
Advanced professional degree				0.0367	0.0441
				(0.0581)	(0.0609)
Annual earnings				-0.0115***	-0.00542
				(0.00414)	(0.00469)

5HTT Short allele					0.00191
					(0.0236)
MAOA High transcription allele					0.0294
					(0.0273)
Regular smoker, past 30 days					0.0878**
					(0.0376)
Marijuana user, past year					0.221***
					(0.0548)
Lifetime other drug use					0.249***
					(0.0299)
Number of lifetime chronic conditions					0.178***
					(0.0226)
Employment sponsored health insurance					-0.136***
					(0.0399)
Other health insurance					-0.0636
					(0.0434)
Physical activity					-0.0198
					(0.0346)
Constant cut1	-0.953***	-1.033***	-1.593***	-1.896***	-1.577***
	(0.0497)	(0.228)	(0.250)	(0.258)	(0.265)
Constant cut2	-0.335***	-0.414*	-0.973***	-1.270***	-0.936***
	(0.0469)	(0.227)	(0.249)	(0.257)	(0.264)
Constant cut3	0.112**	0.0337	-0.519**	-0.810***	-0.468*
	(0.0487)	(0.229)	(0.250)	(0.258)	(0.264)
Constant cut4	0.468***	0.391*	-0.155	-0.440*	-0.0857
	(0.0482)	(0.232)	(0.253)	(0.261)	(0.267)
Constant cut5	0.759***	0.685***	0.141	-0.139	0.220
	(0.0475)	(0.232)	(0.254)	(0.261)	(0.267)
Constant cut6	1.058***	0.986***	0.442*	0.166	0.535**
	(0.0490)	(0.234)	(0.255)	(0.263)	(0.269)
Constant cut7	1.316***	1.247***	0.707***	0.436*	0.814***
	(0.0491)	(0.234)	(0.255)	(0.263)	(0.269)
Constant cut8	1.508***	1.441***	0.903***	0.635**	1.015***
	(0.0525)	(0.237)	(0.257)	(0.264)	(0.271)
Constant cut9	1.679***	1.611***	1.075***	0.811***	1.195***
	(0.0539)	(0.236)	(0.256)	(0.264)	(0.271)
Constant cut10	1.899***	1.829***	1.295***	1.036***	1.432***
	(0.0561)	(0.236)	(0.255)	(0.262)	(0.269)
Constant cut11	2.049***	1.977***	1.446***	1.190***	1.591***
	(0.0563)	(0.235)	(0.254)	(0.262)	(0.268)
Constant cut12	2.188***	2.119***	1.591***	1.337***	1.745***
	(0.0614)	(0.238)	(0.256)	(0.264)	(0.269)
Constant cut13	2.365***	2.297***	1.767***	1.517***	1.939***
	(0.0621)	(0.237)	(0.254)	(0.260)	(0.264)
Constant cut14	2.567***	2.496***	1.998***	1.749***	2.181***
	(0.0755)	(0.247)	(0.264)	(0.270)	(0.275)
Constant cut15	2.728***	2.664***	2.172***	1.923***	2.387***
	(0.0873)	(0.264)	(0.283)	(0.288)	(0.293)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3F. Ordered Probit Regression Results Predicting Wave IV Scores on the CES-D Depression Scale, Women (N = 7,190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Bottom Quartile	0.0808***	0.122***	0.0478*	0.0351	0.0686**
	(0.0256)	(0.0391)	(0.0264)	(0.0261)	(0.0270)
Top Quartile	0.104***	0.111**	0.0801**	0.0738**	0.0439
	(0.0359)	(0.0517)	(0.0371)	(0.0371)	(0.0403)
Age (w4)		-0.0052	-0.0132*	-0.0123	-0.00552
		(0.00798)	(0.00773)	(0.00762)	(0.00811)
Hispanic ethnicity		0.00706	-0.0280	-0.0388	0.00927
		(0.0592)	(0.0670)	(0.0656)	(0.0585)
African American		0.189***	0.119***	0.134***	0.223***
		(0.0354)	(0.0358)	(0.0336)	(0.0336)
Other race		0.102**	0.103*	0.109*	0.143**
		(0.0560)	(0.0592)	(0.0567)	(0.0580)
Born in the U.S.		0.0101	-0.00644	-0.0300	-0.0662
		(0.0527)	(0.0520)	(0.0507)	(0.0506)
Residential mother			-0.128	-0.133	-0.130
			(0.168)	(0.168)	(0.176)
Residential father			-0.00472	-0.0370	-0.00653
			(0.0840)	(0.0823)	(0.0883)
Children under age 18 in household			0.0235**	0.0116	0.0206*
			(0.0116)	(0.0112)	(0.0115)
Oldest child			0.00300	0.0230	0.0305
			(0.0271)	(0.0257)	(0.0268)
Live with both biological parents			-0.0590	-0.00830	0.0359
			(0.0439)	(0.0433)	(0.0476)
Single father household			-0.0504	-0.0111	0.0219
			(0.172)	(0.178)	(0.184)
Single mother household			-0.0837	-0.0581	-0.0119
			(0.0668)	(0.0637)	(0.0691)
Residential mother white collar (w1)			-0.0785***	-0.0309	-0.0461
			(0.0282)	(0.0292)	(0.0300)
Residential mother employed			-0.0437	-0.0345	-0.0129
			(0.0435)	(0.0443)	(0.0446)
Residential father white collar			-0.0394	0.0410	0.0362
			(0.0334)	(0.0341)	(0.0339)
Residential father employed			-0.168**	-0.131*	-0.157**
			(0.0723)	(0.0724)	(0.0718)
Residential parent received welfare			0.0962**	0.0472	0.0197
			(0.0426)	(0.0429)	(0.0431)
Ever married			0.0723*	0.00693	0.0597
			(0.0375)	(0.0394)	(0.0416)
Currently attending school				0.0660**	0.0324
				(0.0314)	(0.0345)
Vocational training				-0.207***	-0.196***
				(0.0632)	(0.0632)
Some college				-0.241***	-0.221***
				(0.0416)	(0.0442)
Completed college				-0.228***	-0.151***
				(0.0316)	(0.0337)
Advanced professional degree				0.0323	0.0403
				(0.0580)	(0.0605)
Annual earnings				-0.0116***	-0.00548

				(0.00414)	(0.00469)
5HTT Short allele					0.00185
					(0.0236)
MAOA High transcription allele					0.0295
					(0.0272)
Regular smoker, past 30 days					0.0867**
					(0.0375)
Marijuana user, past year					0.220***
					(0.0548)
Lifetime other drug use					0.249***
					(0.0296)
Number of lifetime chronic conditions					0.177***
					(0.0225)
Employment sponsored health insurance					-0.134***
					(0.0399)
Other health insurance					-0.0603
					(0.0434)
Physical activity					-0.0196
					(0.0348)
Constant cut1	-0.887***		-1.562***	-1.886***	-1.470***
	(0.0252)		(0.251)	(0.259)	(0.268)
Constant cut2	-0.268***		-0.942***	-1.260***	-0.828***
	(0.0205)		(0.250)	(0.257)	(0.267)
Constant cut3	0.179***		-0.488*	-0.800***	-0.360
	(0.0225)		(0.251)	(0.258)	(0.267)
Constant cut4	0.536***		-0.124	-0.430	0.0223
	(0.0223)		(0.254)	(0.261)	(0.270)
Constant cut5	0.827***		0.173	-0.128	0.328
	(0.0233)		(0.255)	(0.262)	(0.270)
Constant cut6	1.126***		0.474*	0.177	0.643**
	(0.0239)		(0.257)	(0.264)	(0.273)
Constant cut7	1.384***		0.739***	0.447*	0.922***
	(0.0251)		(0.256)	(0.264)	(0.272)
Constant cut8	1.576***		0.934***	0.646**	1.123***
	(0.0299)		(0.259)	(0.265)	(0.276)
Constant cut9	1.747***		1.107***	0.822***	1.303***
	(0.0314)		(0.258)	(0.265)	(0.275)
Constant cut10	1.968***		1.327***	1.047***	1.540***
	(0.0355)		(0.257)	(0.264)	(0.273)
Constant cut11	2.118***		1.479***	1.201***	1.699***
	(0.0385)		(0.256)	(0.263)	(0.272)
Constant cut12	2.257***		1.623***	1.349***	1.853***
	(0.0446)		(0.259)	(0.266)	(0.274)
Constant cut13	2.436***		1.800***	1.529***	2.048***
	(0.0451)		(0.255)	(0.262)	(0.267)
Constant cut14	2.638***		2.032***	1.762***	2.290***
	(0.0640)		(0.267)	(0.273)	(0.279)
Constant cut15	2.800***		2.206***	1.936***	2.497***
	(0.0785)		(0.285)	(0.290)	(0.297)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3G. Ordered Probit Regression Results Predicting Scores on the CES-D Depression Scale, Women (N = 7, 190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Bottom Decile	0.139***	0.121***	0.106***	0.0777*	0.128***
	(0.0392)	(0.0392)	(0.0401)	(0.0404)	(0.0420)
Top Decile	0.120**	0.110**	0.0783	0.0758	0.0581
	(0.0503)	(0.0518)	(0.0516)	(0.0522)	(0.0540)
Age		-0.00623	-0.0125	-0.0117	-0.00544
		(0.00792)	(0.00764)	(0.00754)	(0.00794)
Hispanic ethnicity		0.00706	-0.0259	-0.0377	0.0113
		(0.0592)	(0.0674)	(0.0660)	(0.0588)
African American		0.194***	0.115***	0.130***	0.219***
		(0.0354)	(0.0357)	(0.0337)	(0.0338)
Other race		0.112**	0.101*	0.106*	0.143**
		(0.0560)	(0.0604)	(0.0578)	(0.0593)
Born in the U.S.		0.0108	-0.00456	-0.0287	-0.0668
		(0.0523)	(0.0527)	(0.0511)	(0.0510)
Residential mother			-0.139	-0.141	-0.139
			(0.167)	(0.166)	(0.175)
Residential father			-0.0146	-0.0465	-0.0181
			(0.0841)	(0.0824)	(0.0886)
Children under age 18 in household			0.0236**	0.0118	0.0207*
			(0.0116)	(0.0112)	(0.0115)
Oldest child			0.00423	0.0241	0.0318
			(0.0269)	(0.0256)	(0.0267)
Live with both biological parents			-0.0602	-0.00958	0.0365
			(0.0436)	(0.0430)	(0.0473)
Single father household			-0.0599	-0.0188	0.0128
			(0.171)	(0.176)	(0.184)
Single mother household			-0.0803	-0.0552	-0.00938
			(0.0666)	(0.0636)	(0.0690)
Residential mother white collar (w1)			-0.0783***	-0.0308	-0.0466
			(0.0281)	(0.0292)	(0.0299)
Residential mother employed			-0.0411	-0.0325	-0.0103
			(0.0434)	(0.0442)	(0.0445)
Residential father white collar			-0.0405	0.0400	0.0346
			(0.0333)	(0.0339)	(0.0339)
Residential father employed			-0.156**	-0.120	-0.144**
			(0.0735)	(0.0737)	(0.0728)
Residential parent received welfare			0.0937**	0.0449	0.0182
			(0.0420)	(0.0423)	(0.0426)
Ever married			0.0699*	0.00488	0.0572
			(0.0374)	(0.0393)	(0.0415)
Currently attending school				0.0657**	0.0324
				(0.0312)	(0.0342)
Vocational training				-0.205***	-0.195***
				(0.0624)	(0.0623)
Some college				-0.241***	-0.223***
				(0.0412)	(0.0439)
Completed college				-0.228***	-0.149***
				(0.0317)	(0.0338)
Advanced professional degree				0.0358	0.0433

				(0.0585)	(0.0612)
Annual earnings				-0.0114***	-0.00566
				(0.00416)	(0.00472)
5HTT Short allele					-1.65e-05
					(0.0235)
MAOA High transcription allele					0.0296
					(0.0274)
Regular smoker, past 30 days					0.0865**
					(0.0376)
Marijuana user, past year					0.219***
					(0.0547)
Lifetime other drug use					0.250***
					(0.0294)
Number of lifetime chronic conditions					0.176***
					(0.0226)
Employment sponsored health insurance					-0.134***
					(0.0398)
Other health insurance					-0.0627
					(0.0432)
Physical activity					-0.0213
					(0.0345)
Constant cut1	-0.903***	-1.009***	-1.557***	-1.881***	-1.490***
	(0.0240)	(0.222)	(0.247)	(0.254)	(0.261)
Constant cut2	-0.284***	-0.389*	-0.937***	-1.255***	-0.849***
	(0.0190)	(0.222)	(0.245)	(0.253)	(0.260)
Constant cut3	0.163***	0.0589	-0.482*	-0.795***	-0.381
	(0.0208)	(0.224)	(0.246)	(0.254)	(0.260)
Constant cut4	0.519***	0.415*	-0.119	-0.426*	0.000959
	(0.0204)	(0.227)	(0.250)	(0.257)	(0.263)
Constant cut5	0.811***	0.710***	0.178	-0.124	0.307
	(0.0211)	(0.226)	(0.250)	(0.257)	(0.263)
Constant cut6	1.110***	1.012***	0.479*	0.182	0.622**
	(0.0221)	(0.229)	(0.251)	(0.259)	(0.265)
Constant cut7	1.368***	1.274***	0.744***	0.451*	0.902***
	(0.0233)	(0.228)	(0.251)	(0.258)	(0.265)
Constant cut8	1.560***	1.467***	0.940***	0.650**	1.103***
	(0.0282)	(0.231)	(0.253)	(0.260)	(0.267)
Constant cut9	1.732***	1.638***	1.113***	0.826***	1.283***
	(0.0302)	(0.231)	(0.253)	(0.259)	(0.267)
Constant cut10	1.953***	1.856***	1.333***	1.051***	1.521***
	(0.0340)	(0.230)	(0.251)	(0.258)	(0.264)
Constant cut11	2.103***	2.004***	1.485***	1.206***	1.680***
	(0.0366)	(0.230)	(0.250)	(0.258)	(0.264)
Constant cut12	2.243***	2.148***	1.629***	1.354***	1.835***
	(0.0427)	(0.233)	(0.253)	(0.260)	(0.265)
Constant cut13	2.421***	2.326***	1.806***	1.533***	2.029***
	(0.0442)	(0.231)	(0.250)	(0.256)	(0.259)
Constant cut14	2.624***	2.526***	2.038***	1.766***	2.273***
	(0.0627)	(0.241)	(0.260)	(0.266)	(0.271)
Constant cut15	2.786***	2.695***	2.212***	1.941***	2.479***
	(0.0771)	(0.260)	(0.280)	(0.285)	(0.289)

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 3H. Ordered Probit Regression Results Predicting Scores on the CES-D Depression Scale, Women (N = 7,190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Bottom 5th Percentile	0.200***	0.181***	0.165***	0.133***	0.196***
	(0.0481)	(0.0503)	(0.0505)	(0.0504)	(0.0489)
Top 5th Percentile	0.129*	0.142*	0.112	0.106	0.0638
	(0.0722)	(0.0729)	(0.0743)	(0.0750)	(0.0746)
Age		-0.00558	-0.0119	-0.0111	-0.00501
		(0.00794)	(0.00771)	(0.00763)	(0.00802)
Hispanic ethnicity		0.00674	-0.0265	-0.0381	0.0106
		(0.0591)	(0.0673)	(0.0658)	(0.0587)
African American		0.194***	0.115***	0.130***	0.218***
		(0.0356)	(0.0359)	(0.0338)	(0.0338)
Other race		0.111**	0.0998*	0.105*	0.142**
		(0.0557)	(0.0602)	(0.0576)	(0.0590)
Born in the U.S.		0.0118	-0.00361	-0.0273	-0.0661
		(0.0527)	(0.0530)	(0.0513)	(0.0513)
Residential mother			-0.136	-0.139	-0.136
			(0.167)	(0.167)	(0.176)
Residential father			-0.0127	-0.0446	-0.0170
			(0.0842)	(0.0825)	(0.0886)
Children under age 18 in household			0.0237**	0.0118	0.0207*
			(0.0115)	(0.0112)	(0.0114)
Oldest child			0.00568	0.0254	0.0327
			(0.0269)	(0.0256)	(0.0267)
Live with both biological parents			-0.0613	-0.0107	0.0354
			(0.0438)	(0.0431)	(0.0475)
Single father household			-0.0552	-0.0156	0.0183
			(0.172)	(0.177)	(0.185)
Single mother household			-0.0827	-0.0569	-0.0126
			(0.0666)	(0.0635)	(0.0689)
Residential mother white collar			0.0784***	-0.0309	-0.0466
			(0.0281)	(0.0291)	(0.0298)
Residential mother employed			-0.0393	-0.0310	-0.00906
			(0.0434)	(0.0442)	(0.0445)
Residential father white collar			-0.0401	0.0402	0.0353
			(0.0332)	(0.0338)	(0.0337)
Residential father employed			-0.159**	-0.122*	-0.148**
			(0.0724)	(0.0726)	(0.0718)
Residential parent received welfare			0.0946**	0.0454	0.0185
			(0.0419)	(0.0424)	(0.0424)
Currently married			0.0704*	0.00578	0.0578
			(0.0375)	(0.0394)	(0.0417)
Currently attending school				0.0678**	0.0353
				(0.0312)	(0.0340)
Vocational training				-0.205***	-0.197***
				(0.0625)	(0.0622)
Some college				-0.241***	-0.222***
				(0.0414)	(0.0440)
Completed college				-0.228***	-0.150***
				(0.0317)	(0.0338)
Advanced professional degree				0.0360	0.0422
				(0.0588)	(0.0615)

Annual earnings				0.0112***	-0.00544
				(0.00415)	(0.00471)
5HTT short allele					0.000208
					(0.0237)
MAOA High transcription allele					0.0304
					(0.0274)
Regular smoker, past 30 days					0.0858**
					(0.0376)
Marijuana user, past year					0.220***
					(0.0550)
Lifetime other drug use					0.249***
					(0.0296)
Number of lifetime chronic conditions					0.177***
					(0.0225)
Employment-sponsored health insurance					-0.135***
					(0.0398)
Other health insurance					-0.0633
					(0.0433)
Weekly physical activity					-0.0209
					(0.0343)
Constant cut1	-0.911***	-0.996***	-1.542***	-1.862***	-1.477***
	(0.0233)	(0.223)	(0.249)	(0.257)	(0.265)
Constant cut2	-0.292***	-0.376*	-0.922***	-1.235***	-0.836***
	(0.0185)	(0.222)	(0.248)	(0.256)	(0.263)
Constant cut3	0.155***	0.0718	-0.467*	-0.775***	-0.368
	(0.0201)	(0.224)	(0.249)	(0.257)	(0.263)
Constant cut4	0.511***	0.428*	-0.104	-0.406	0.0139
	(0.0196)	(0.227)	(0.252)	(0.260)	(0.266)
Constant cut5	0.803***	0.723***	0.193	-0.104	0.320
	(0.0205)	(0.227)	(0.253)	(0.260)	(0.266)
Constant cut6	1.102***	1.025***	0.494*	0.202	0.635**
	(0.0220)	(0.229)	(0.254)	(0.262)	(0.269)
Constant cut7	1.360***	1.286***	0.759***	0.471*	0.915***
	(0.0231)	(0.229)	(0.254)	(0.262)	(0.268)
Constant cut8	1.552***	1.480***	0.955***	0.670**	1.116***
	(0.0285)	(0.232)	(0.256)	(0.263)	(0.271)
Constant cut9	1.724***	1.651***	1.128***	0.846***	1.297***
	(0.0304)	(0.231)	(0.255)	(0.263)	(0.270)
Constant cut10	1.945***	1.869***	1.349***	1.072***	1.534***
	(0.0342)	(0.231)	(0.254)	(0.261)	(0.268)
Constant cut11	2.095***	2.017***	1.500***	1.227***	1.694***
	(0.0371)	(0.230)	(0.253)	(0.261)	(0.267)
Constant cut12	2.234***	2.160***	1.645***	1.374***	1.848***
	(0.0435)	(0.233)	(0.255)	(0.263)	(0.269)
Constant cut13	2.413***	2.339***	1.821***	1.554***	2.043***
	(0.0451)	(0.231)	(0.252)	(0.260)	(0.263)
Constant cut14	2.615***	2.539***	2.053***	1.786***	2.286***
	(0.0636)	(0.241)	(0.263)	(0.270)	(0.275)
Constant cut15	2.777***	2.707***	2.228***	1.961***	2.493***
	(0.0779)	(0.260)	(0.282)	(0.288)	(0.292)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4A. Probit Regression Results Predicting Psychological or Emotional Counseling, Past 12 Months Women (N = 7,190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Self-perceived body development index	0.0281***	0.0228***	0.0202**	0.0267***	0.0217**
	(0.00803)	(0.00838)	(0.00850)	(0.00990)	(0.0101)
	[0.00032**]	[0.00033**]	[0.00041***]	[0.00046***]	[0.0025**]
Age		0.000126	-0.00175	0.0136	0.0189
		(0.0128)	(0.0128)	(0.0160)	(0.0159)
Hispanic ethnicity		-0.0700	-0.0418	-0.00609	0.0655
		(0.0695)	(0.0727)	(0.0852)	(0.0806)
African American		-0.229***	-0.259***	-0.309***	-0.191**
		(0.0558)	(0.0624)	(0.0801)	(0.0798)
Other race		-0.0678	-0.0688	-0.0546	-0.0643
		(0.0646)	(0.0670)	(0.0798)	(0.0876)
Born in the U.S.		0.199**	0.167	0.145	0.0573
		(0.0888)	(0.113)	(0.130)	(0.141)
Residential mother			0.340	0.0947	0.152
			(0.373)	(0.394)	(0.389)
Residential father			0.262*	0.260	0.328*
			(0.137)	(0.183)	(0.180)
Children under age 18 in household			-0.0338*	-0.0361	-0.0298
			(0.0195)	(0.0255)	(0.0251)
Oldest child			0.0363	0.0735	0.0976*
			(0.0446)	(0.0530)	(0.0536)
Live with both biological parents			-0.0858	-0.115	-0.0722
			(0.0642)	(0.0826)	(0.0817)
Single father household			0.375	-0.000110	0.0735
			(0.378)	(0.396)	(0.388)
Single mother household			0.175**	0.106	0.143
			(0.0886)	(0.130)	(0.129)
Residential mother white collar			-0.000459	-0.0926*	-0.0979*
			(0.0493)	(0.0553)	(0.0567)
Residential mother employed			-0.00719	0.0250	0.00988
			(0.0640)	(0.0804)	(0.0812)
Residential father white collar			0.0849	-0.0111	-0.0373
			(0.0525)	(0.0614)	(0.0646)
Residential father employed			-0.128	-0.165	-0.207
			(0.106)	(0.132)	(0.130)
Residential parent received welfare			-0.0240	0.0314	0.0262
			(0.0681)	(0.0944)	(0.0954)
Ever married			-0.0572	-0.0485	-0.0256
			(0.0600)	(0.0732)	(0.0732)
Currently attending school				0.310***	0.296***
				(0.0513)	(0.0537)
PVT				0.00567***	0.00447**
				(0.00215)	(0.00218)
Cumulative high school GPA				-0.0157	0.0430
				(0.0412)	(0.0425)

Vocational training				0.0292	0.0687
				(0.100)	(0.102)
Some college				0.0188	0.0445
				(0.0817)	(0.0860)
Completed college				0.106*	0.133**
				(0.0587)	(0.0643)
Advanced professional degree				0.129	0.103
				(0.112)	(0.121)
Annual earnings				-0.00769	-0.00203
				(0.00818)	(0.00860)
5HTT short allele					-0.0119
					(0.0646)
MAOA high transcription allele					-0.0985
					(0.0630)
Regular smoker, past 30 days					0.143**
					(0.0722)
Marijuana user, past year					0.0409
					(0.0924)
Lifetime other drug use					0.380***
					(0.0642)
Number of lifetime number of chronic conditions					0.159***
					(0.0475)
Employment-sponsored health insurance					0.0857
					(0.0771)
Other health insurance					0.239***
					(0.0818)
Weekly physical activity					-0.0362
					(0.0709)
Constant	-1.465***	-1.534***	-1.838***	-2.585***	-3.095***
	(0.0877)	(0.377)	(0.529)	(0.695)	(0.698)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4B. Probit Regression Psychological or Emotional Counseling, Past 12 Months Women (N = 7,190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Bottom quartile	-0.0920*	-0.0677	-0.0740	-0.0637	-0.0141
	(0.0545)	(0.0549)	(0.0556)	(0.0659)	(0.0713)
Top quartile	0.138***	0.132***	0.106**	0.160**	0.133*
	(0.0482)	(0.0493)	(0.0526)	(0.0643)	(0.0711)
	[0.0288***]	[0.0273**]	[0.0214*]	[0.0323**]	[0.0239*]
Age		-0.000377	-0.00211	0.0131	0.0218
		(0.0127)	(0.0127)	(0.0161)	(0.0163)
Hispanic ethnicity		-0.0691	-0.0406	-0.00372	0.0874
		(0.0697)	(0.0727)	(0.0853)	(0.0820)
African American		-0.233***	-0.261***	-0.317***	-0.191**
		(0.0556)	(0.0619)	(0.0790)	(0.0802)
Other race		-0.0676	-0.0684	-0.0545	-0.0803
		(0.0648)	(0.0672)	(0.0800)	(0.0922)
Born in the U.S.		0.198**	0.166	0.142	0.0154
		(0.0893)	(0.113)	(0.131)	(0.155)
Residential mother			0.341	0.0938	0.121
			(0.375)	(0.395)	(0.415)
Residential father			0.258*	0.252	0.313
			(0.138)	(0.184)	(0.192)
Children under age 18 in household			-0.0351*	-0.0383	-0.0327
			(0.0195)	(0.0256)	(0.0256)
Oldest child			0.0377	0.0747	0.0900
			(0.0448)	(0.0530)	(0.0548)
Live with both biological parents			-0.0828	-0.111	-0.0431
			(0.0642)	(0.0829)	(0.0827)
Single father household			0.377	-0.00406	0.0477
			(0.381)	(0.397)	(0.412)
Single mother household			0.172*	0.103	0.149
			(0.0888)	(0.130)	(0.132)
Residential mother white collar			-0.000820	-0.0930*	-0.0916
			(0.0492)	(0.0556)	(0.0592)
Residential mother employed			-0.00678	0.0232	0.000390
			(0.0641)	(0.0807)	(0.0866)
Residential father white collar			0.0864	-0.00910	-0.0239
			(0.0529)	(0.0623)	(0.0642)
Residential father employed			-0.129	-0.166	-0.217
			(0.106)	(0.133)	(0.134)
Residential parent received welfare			-0.0234	0.0295	-0.0299
			(0.0681)	(0.0936)	(0.0979)
Ever married			-0.0577	-0.0485	-0.0507
			(0.0600)	(0.0733)	(0.0772)

Currently attending school				0.311***	0.286***
				(0.0516)	(0.0547)
PVT				0.00562***	0.00305
				(0.00216)	(0.00218)
Cumulative high school GPA				-0.0171	0.0584
				(0.0411)	(0.0430)
Vocational training				0.0259	0.0687
				(0.100)	(0.104)
Some college				0.0177	0.0541
				(0.0822)	(0.0875)
Completed college				0.112*	0.185***
				(0.0583)	(0.0680)
Advanced professional degree				0.126	0.105
				(0.113)	(0.133)
Annual earnings				-0.00790	0.00146
				(0.00821)	(0.00885)
5HTT short allele					0.00323
					(0.0649)
MAOA high transcription allele					-0.113*
					(0.0641)
Regular smoker, past 30 days					0.109
					(0.0755)
Marijuana user, past year					-0.0112
					(0.0910)
Lifetime other drug use					0.327***
					(0.0682)
Number of Lifetime number of chronic conditions					0.417***
					(0.0302)
Employment-sponsored health insurance					0.0920
					(0.0800)
Other health insurance					0.231***
					(0.0850)
Weekly physical activity					-0.000789
					(0.0732)
Constant	-1.183***	-1.294***	-1.620***	-2.291***	-3.070***
	(0.0307)	(0.373)	(0.538)	(0.711)	(0.741)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4C. Probit Regression Results Predicting Psychological or Emotional Counseling, Past 12 Months Women (N = 7,190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Bottom Decile	-0.0120	0.0194	0.0335	-0.00247	0.0721
	(0.0696)	(0.0717)	(0.0737)	(0.0878)	(0.0916)
Top Decile	0.0562	0.0283	-0.0112	-0.0311	-0.0721
	(0.0629)	(0.0663)	(0.0701)	(0.0772)	(0.0863)
Age		0.00461	0.00288	0.0187	0.0267*
		(0.0130)	(0.0128)	(0.0161)	(0.0162)
Hispanic ethnicity		-0.0704	-0.0391	-0.000550	0.0939
		(0.0700)	(0.0733)	(0.0849)	(0.0813)
African American		-0.242***	-0.272***	-0.310***	-0.182**
		(0.0562)	(0.0627)	(0.0794)	(0.0807)
Other race		-0.0789	-0.0790	-0.0684	-0.0909
		(0.0642)	(0.0672)	(0.0796)	(0.0916)
Born in the U.S.		0.213**	0.181	0.156	0.0256
		(0.0888)	(0.113)	(0.130)	(0.154)
Residential mother			0.310	0.0767	0.0856
			(0.372)	(0.396)	(0.410)
Residential father			0.261*	0.253	0.314
			(0.138)	(0.183)	(0.191)
Children under age 18 in household			-0.0368*	-0.0378	-0.0326
			(0.0192)	(0.0253)	(0.0253)
Oldest child			0.0364	0.0739	0.0904*
			(0.0447)	(0.0527)	(0.0544)
Live with both biological parents			-0.0906	-0.120	-0.0513
			(0.0635)	(0.0817)	(0.0817)
Single father household			0.357	-0.0170	0.0165
			(0.380)	(0.399)	(0.408)
Single mother household			0.173*	0.106	0.153
			(0.0885)	(0.130)	(0.131)
Residential mother white collar			0.00131	-0.0894	-0.0890
			(0.0493)	(0.0551)	(0.0590)
Residential mother employed			0.000861	0.0234	0.00335
			(0.0637)	(0.0804)	(0.0870)
Residential father white collar			0.0892*	-0.00794	-0.0225
			(0.0523)	(0.0603)	(0.0625)
Residential father employed			-0.131	-0.162	-0.212
			(0.107)	(0.134)	(0.137)
Residential parent received welfare			-0.0364	0.0226	-0.0351
			(0.0681)	(0.0943)	(0.0992)
Ever married			-0.0541	-0.0438	-0.0446
			(0.0601)	(0.0736)	(0.0774)

Currently attending school				0.311***	0.287***
				(0.0513)	(0.0549)
PVT				0.00639***	0.00375*
				(0.00216)	(0.00216)
Cumulative high school GPA				-0.0240	0.0529
				(0.0408)	(0.0426)
Vocational training				0.0441	0.0878
				(0.0996)	(0.105)
Some college				0.0306	0.0691
				(0.0814)	(0.0868)
Completed college				0.103*	0.181***
				(0.0588)	(0.0690)
Advanced professional degree				0.129	0.107
				(0.112)	(0.133)
Annual earnings				-0.00658	0.00272
				(0.00821)	(0.00885)
5HTT short allele					0.00133
					(0.0655)
MAOA high transcription allele					-0.109*
					(0.0641)
Regular smoker, past 30 days					0.116
					(0.0749)
Marijuana user, past year					-0.00491
					(0.0927)
Lifetime other drug use					0.327***
					(0.0684)
Number of lifetime of chronic conditions					0.423***
					(0.0303)
Employment-sponsored health insurance					0.0896
					(0.0797)
Other health insurance					0.228***
					(0.0851)
Weekly physical activity					-0.00105
					(0.0735)
Constant	1.187***	-1.445***	-1.747***	-2.509***	-3.254***
	(0.0299)	(0.380)	(0.529)	(0.701)	(0.723)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4D. Probit Regression Results Predicting Psychological or Emotional Counseling, Past 12 Months Women (N=7,190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Bottom 5th percentile	0.0105	0.0639	0.0839	0.0328	0.128
	(0.0828)	(0.0869)	(0.0886)	(0.108)	(0.114)
Top 5th percentile	0.0445	0.0137	-0.00109	-0.132	-0.212
	(0.102)	(0.107)	(0.114)	(0.147)	(0.164)
Age		0.00505	0.00302	0.0188	0.0265*
		(0.0129)	(0.0127)	(0.0160)	(0.0160)
Hispanic ethnicity		-0.0707	-0.0395	0.000920	0.0960
		(0.0700)	(0.0731)	(0.0852)	(0.0820)
African American		-0.244***	-0.273***	-0.309***	-0.181**
		(0.0565)	(0.0630)	(0.0797)	(0.0814)
Other race		-0.0799	-0.0791	-0.0699	-0.0935
		(0.0640)	(0.0669)	(0.0793)	(0.0917)
Born in the U.S.		0.214**	0.182	0.156	0.0230
		(0.0890)	(0.114)	(0.130)	(0.156)
Residential mother			0.312	0.0863	0.112
			(0.374)	(0.395)	(0.411)
Residential father			0.261*	0.248	0.307
			(0.137)	(0.183)	(0.191)
Children under age 18 in household			-0.0370*	-0.0383	-0.0333
			(0.0193)	(0.0252)	(0.0253)
Oldest child			0.0368	0.0730	0.0893
			(0.0448)	(0.0530)	(0.0549)
Live with both biological parents			-0.0903	-0.121	-0.0527
			(0.0631)	(0.0810)	(0.0810)
Single father household			0.360	-0.00483	0.0468
			(0.380)	(0.396)	(0.408)
Single mother household			0.172*	0.104	0.149
			(0.0883)	(0.129)	(0.131)
Residential mother white collar			0.00155	-0.0892	-0.0889
			(0.0492)	(0.0550)	(0.0587)
Residential mother employed			0.00177	0.0220	0.00218
			(0.0637)	(0.0805)	(0.0871)
Residential father white collar			0.0898*	-0.00675	-0.0208
			(0.0524)	(0.0603)	(0.0627)
Residential father employed			-0.132	-0.159	-0.208
			(0.107)	(0.134)	(0.137)
Residential parent received welfare			-0.0361	0.0225	-0.0334
			(0.0681)	(0.0948)	(0.0996)
Ever married			-0.0545	-0.0449	-0.0472
			(0.0601)	(0.0737)	(0.0777)
Currently attending school				0.311***	0.289***

				(0.0513)	(0.0550)
PVT				0.00648***	0.00385*
				(0.00215)	(0.00215)
Cumulative high school GPA				-0.0244	0.0529
				(0.0405)	(0.0423)
Vocational training				0.0450	0.0868
				(0.0994)	(0.104)
Some college				0.0322	0.0690
				(0.0812)	(0.0864)
Completed college				0.102*	0.181***
				(0.0588)	(0.0686)
Advanced professional degree				0.127	0.102
				(0.111)	(0.132)
Annual earnings				-0.00651	0.00275
				(0.00817)	(0.00881)
5HTT short allele					0.00352
					(0.0657)
MAOA high transcription allele					-0.112*
					(0.0638)
Regular smoker, past 30 days					0.117
					(0.0749)
Marijuana user, past year					-0.00288
					(0.0929)
Lifetime other drug use					0.327***
					(0.0685)
Number of lifetime number of					0.425***
					(0.0306)
Employment-sponsored health insurance					0.0909
					(0.0799)
Other health insurance					0.228***
					(0.0851)
Weekly physical activity					-0.00131
					(0.0740)
Constant	1.185***	-1.458***	-1.755***	-2.528***	-3.276***
	(0.0301)	(0.377)	(0.530)	(0.695)	(0.719)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5A. OLS Regression Predicting the Natural Logarithm of Body Mass Index (BMI), Women (N = 7,190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Self-perceived body development index	0.0219***	0.0225***	0.0233***	0.0233***	0.0229***
	(0.00133)	(0.00134)	(0.00134)	(0.00133)	(0.00132)
Age		0.00578**	0.00316	0.00321	0.00273
		(0.00228)	(0.00210)	(0.00211)	(0.00217)
Hispanic ethnicity		0.0532***	0.0363***	0.0353***	0.0313**
		(0.0121)	(0.0133)	(0.0122)	(0.0125)
African American		0.0801***	0.0690***	0.0732***	0.0571***
		(0.0131)	(0.0125)	(0.0123)	(0.0120)
Other race		0.00880	0.00786	0.00790	0.00459
		(0.0152)	(0.0152)	(0.0140)	(0.0136)
Born in the U.S.		0.0649***	0.0650***	0.0583***	0.0521***
		(0.0103)	(0.00921)	(0.00921)	(0.00957)
Residential mother			0.0573	0.0636*	0.0501
			(0.0379)	(0.0374)	(0.0370)
Residential father			0.0429*	0.0359	0.0348
			(0.0217)	(0.0221)	(0.0229)
Children under age 18 in household (w1)			0.00389	0.00159	0.000751
			(0.00350)	(0.00348)	(0.00360)
Oldest child			0.000487	0.00609	0.00770
			(0.00695)	(0.00678)	(0.00666)
Live with both biological parents			0.00430	0.0138	0.0181*
			(0.0108)	(0.0111)	(0.0106)
Single father household			0.0253	0.0378	0.0342
			(0.0416)	(0.0408)	(0.0399)
Single mother household			0.0279*	0.0315*	0.0322*
			(0.0167)	(0.0172)	(0.0168)
Residential mother white collar			-0.0201**	-0.0101	-0.00805
			(0.00782)	(0.00761)	(0.00769)
Residential mother employed			0.000129	-0.00106	-0.00426
			(0.0116)	(0.0115)	(0.0114)
Residential father white collar			-0.0442***	-0.0258***	-0.0230***
			(0.00844)	(0.00808)	(0.00816)
Residential father employed			-0.0259	-0.0197	-0.0271
			(0.0170)	(0.0175)	(0.0184)
Residential parent received welfare			0.0367***	0.0253*	0.0151
			(0.0137)	(0.0136)	(0.0131)
Ever married			0.0446***	0.0295***	0.0297***
			(0.00850)	(0.00862)	(0.00913)
Currently attending school				-0.0114	-0.0128*
				(0.00773)	(0.00771)
Vocational training				-0.0280*	-0.0260*
				(0.0144)	(0.0150)
Some college				-0.0243**	-0.0191*
				(0.00966)	(0.0101)

Completed college				-0.0596***	-0.0609***
				(0.00855)	(0.00868)
Advanced professional degree				-0.0294**	-0.0328**
				(0.0137)	(0.0147)
Annual earnings				-0.000552	-0.000349
				(0.00113)	(0.00130)
5HTT short allele					0.00928
					(0.00654)
MAOA high transcription allele					-0.00497
					(0.00865)
Regular smoker, past 30 days					0.00136
					(0.0112)
Marijuana user, past year					0.00430
					(0.0143)
Lifetime other drug use					-0.0261***
					(0.00780)
Number of lifetime chronic conditions					0.0616***
					(0.00678)
Employment-sponsored health insurance					-0.000844
					(0.0108)
Other health insurance					-0.0131
					(0.0111)
Weekly physical activity					0.00894
					(0.00951)
Constant	3.021***	2.771***	2.768***	2.810***	2.835***
	(0.0143)	(0.0646)	(0.0702)	(0.0705)	(0.0719)
R-squared	0.053	0.082	0.104	0.122	0.141

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5B. OLS Regression Predicting the Natural Logarithm of Body Mass Index (BMI), Women (N = 7,190)

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Bottom Quartile	-0.0585***	-0.0634***	-0.0647***	-0.0650***	-0.0652***
	(0.00718)	(0.00683)	(0.00693)	(0.00684)	(0.00729)
Top Quartile	0.104***	0.0985***	0.101***	0.0995***	0.0952***
	(0.00910)	(0.00959)	(0.00969)	(0.00970)	(0.0101)
Age		0.00615***	0.00364*	0.00373*	0.00329
		(0.00227)	(0.00208)	(0.00209)	(0.00215)
Hispanic ethnicity		0.0539***	0.0374***	0.0363***	0.0329***
		(0.0117)	(0.0132)	(0.0122)	(0.0124)
African American		0.0760***	0.0653***	0.0694***	0.0544***
		(0.0130)	(0.0124)	(0.0122)	(0.0118)
Other race		0.00689	0.00607	0.00607	0.00319
		(0.0153)	(0.0156)	(0.0144)	(0.0140)
Born in the U.S.		0.0664***	0.0669***	0.0605***	0.0536***
		(0.0102)	(0.00942)	(0.00943)	(0.00990)
Residential mother			0.0524	0.0585	0.0454
			(0.0357)	(0.0356)	(0.0357)
Residential father			0.0398*	0.0331	0.0330
			(0.0219)	(0.0222)	(0.0231)
Children under age 18 in household			0.00232	7.64e-05	-0.000636
			(0.00344)	(0.00342)	(0.00351)
Oldest child			0.00303	0.00849	0.00996
			(0.00688)	(0.00673)	(0.00657)
Live with both biological parents			0.00505	0.0143	0.0192*
			(0.0107)	(0.0110)	(0.0106)
Single father household			0.0212	0.0337	0.0308
			(0.0395)	(0.0390)	(0.0384)
Single mother household			0.0265	0.0300*	0.0315*
			(0.0169)	(0.0174)	(0.0169)
Residential mother white collar (w1)			-0.0195**	-0.00973	-0.00753
			(0.00773)	(0.00754)	(0.00759)
Residential mother employed			-0.000269	-0.00144	-0.00480
			(0.0118)	(0.0116)	(0.0116)
Residential father white collar			-0.0422***	-0.0242***	-0.0219***
			(0.00828)	(0.00793)	(0.00806)
Residential father employed			-0.0262	-0.0202	-0.0281
			(0.0167)	(0.0173)	(0.0182)
Residential parent received welfare			0.0357***	0.0247*	0.0142
			(0.0136)	(0.0135)	(0.0131)
Ever married			0.0456***	0.0309***	0.0313***
			(0.00847)	(0.00861)	(0.00912)
Currently attending school				-0.0102	-0.0118
				(0.00786)	(0.00781)
Vocational training				-0.0283*	-0.0260*
				(0.0146)	(0.0153)
Some college				-0.0231**	-0.0178*
				(0.00998)	(0.0103)
Completed college				-0.0587***	-0.0593***
				(0.00836)	(0.00853)
Advanced professional degree				-0.0311**	-0.0344**

				(0.0140)	(0.0149)
Annual earnings				-0.000492	-0.000219
				(0.00111)	(0.00129)
5HTT Short allele					0.00891
					(0.00655)
MAOA High transcription allele					-0.00534
					(0.00882)
Regular smoker, past 30 days					0.00324
					(0.0112)
Marijuana user, past year					0.00606
					(0.0147)
Lifetime other drug use					-0.0236***
					(0.00788)
Number of lifetime chronic conditions					0.0635***
					(0.00688)
Employment sponsored health insurance					-0.00132
					(0.0109)
Other health insurance					-0.0125
					(0.0114)
Weekly physical activity					0.0109
					(0.00952)
Constant	3.239***	2.986***	2.996***	3.035***	3.051***
	(0.00596)	(0.0651)	(0.0681)	(0.0682)	(0.0706)
R-squared	0.047	0.073	0.094	0.111	0.131

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5C. OLS Regression Predicting the Natural Logarithm of Body Mass Index (BMI), Women (N = 7,190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Bottom Decile	-0.0811***	-0.0744***	-0.0856***	-0.0844***	-0.0826***
	(0.0102)	(0.00962)	(0.00946)	(0.00926)	(0.00998)
Top Decile	0.120***	0.116***	0.113***	0.117***	0.118***
	(0.0116)	(0.0116)	(0.0122)	(0.0121)	(0.0120)
Age		0.0106***	0.00849***	0.00832***	0.00789***
		(0.00184)	(0.00184)	(0.00179)	(0.00184)
Hispanic ethnicity		0.0530***	0.0416***	0.0376***	0.0336***
		(0.00793)	(0.00874)	(0.00873)	(0.00841)
African American		0.0417***	0.0369***	0.0372***	0.0246***
		(0.00887)	(0.00833)	(0.00831)	(0.00802)
Other race		0.0118	0.0101	0.0115	0.00828
		(0.0169)	(0.0164)	(0.0157)	(0.0146)
Born in the U.S.		0.0701***	0.0720***	0.0680***	0.0632***
		(0.0105)	(0.00916)	(0.00912)	(0.00989)
Residential mother			0.0199	0.0212	0.0113
			(0.0244)	(0.0240)	(0.0258)
Residential father			0.0281*	0.0238	0.0187
			(0.0159)	(0.0160)	(0.0166)
Children under age 18 in household			-0.000807	-0.00175	-0.00251
			(0.00231)	(0.00225)	(0.00218)
Oldest child			0.00536	0.00737	0.00808
			(0.00581)	(0.00573)	(0.00541)
Live with both biological parents			0.00757	0.0138*	0.0151**
			(0.00699)	(0.00722)	(0.00695)
Single father household			-0.00791	-0.00595	-0.0114
			(0.0262)	(0.0260)	(0.0277)
Single mother household			0.0149	0.0157	0.0126
			(0.0130)	(0.0133)	(0.0136)
Residential mother white collar (w1)			-0.0145**	-0.00937	-0.00875
			(0.00648)	(0.00650)	(0.00668)
Residential mother employed			0.00655	0.00624	0.00440
			(0.00815)	(0.00810)	(0.00808)
Residential father white collar			-0.0364***	-0.0250***	-0.0242***
			(0.00642)	(0.00621)	(0.00622)
Residential father employed			-0.0202	-0.0189	-0.0213
			(0.0133)	(0.0134)	(0.0137)
Residential parent received welfare			0.0178	0.0131	0.00564
			(0.0116)	(0.0118)	(0.0116)
Ever married			0.0414***	0.0345***	0.0326***
			(0.00616)	(0.00594)	(0.00622)
Currently attending school				-0.00253	-0.00466
				(0.00624)	(0.00639)
Vocational training				-0.00898	-0.00919
				(0.0104)	(0.0107)
Some college				-0.00344	-0.00335

				(0.00733)	(0.00698)
Completed college				-0.0431***	-0.0451***
				(0.00708)	(0.00660)
Advanced professional degree				-0.0306***	-0.0333***
				(0.00959)	(0.00972)
Annual earnings				0.000997	0.00110
				(0.000972)	(0.00105)
5HTT Short allele					0.0112**
					(0.00544)
MAOA High transcription allele					-0.00643
					(0.00521)
Regular smoker, past 30 days					-0.00439
					(0.00682)
Marijuana user, past year					-0.0133
					(0.00826)
Lifetime other drug use					-0.0244***
					(0.00555)
Number of lifetime chronic conditions					0.0633***
					(0.00498)
Employment sponsored health insurance					-0.00395
					(0.00766)
Other health insurance					-0.0162**
					(0.00739)
Weekly physical activity					0.00625
					(0.00671)
Constant	3.248***	2.868***	2.898***	2.911***	2.939***
	(0.00536)	(0.0557)	(0.0634)	(0.0617)	(0.0627)
R-squared	0.017	0.037	0.050	0.058	0.083

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5D. OLS Regression Predicting the Natural Logarithm of Body Mass Index (BMI), Women (N = 7,190)

	Model 1	Model 2	Model 3	Model 4	Model 5
Bottom 5th Percentile	-0.0865***	-0.0834***	-0.0927***	-0.0917***	-0.0834***
	(0.0137)	(0.0147)	(0.0151)	(0.0145)	(0.0156)
Top 5TH Percentile	0.143***	0.141***	0.144***	0.147***	0.149***
	(0.0154)	(0.0161)	(0.0164)	(0.0164)	(0.0166)
Age		0.0111***	0.00900***	0.00883***	0.00843***
		(0.00181)	(0.00178)	(0.00174)	(0.00177)
Hispanic ethnicity		0.0530***	0.0415***	0.0375***	0.0334***
		(0.00785)	(0.00870)	(0.00870)	(0.00838)
African American		0.0422***	0.0377***	0.0380***	0.0250***
		(0.00899)	(0.00839)	(0.00834)	(0.00803)
Other race		0.0110	0.00958	0.0108	0.00782
		(0.0167)	(0.0165)	(0.0157)	(0.0147)
Born in the U.S.		0.0724***	0.0743***	0.0704***	0.0655***
		(0.0107)	(0.00940)	(0.00938)	(0.0101)
Residential mother			0.0156	0.0166	0.00681
			(0.0239)	(0.0235)	(0.0251)
Residential father			0.0290*	0.0248	0.0203
			(0.0160)	(0.0161)	(0.0167)
Children under age 18 in household			-0.000741	-0.00164	-0.00235
			(0.00226)	(0.00221)	(0.00216)
Oldest child			0.00674	0.00873	0.00953*
			(0.00582)	(0.00572)	(0.00543)
Live with both biological parents			0.00641	0.0124*	0.0138**
			(0.00700)	(0.00720)	(0.00691)
Single father household			-0.0131	-0.0115	-0.0175
			(0.0252)	(0.0250)	(0.0264)
Single mother household			0.0162	0.0170	0.0139
			(0.0130)	(0.0133)	(0.0136)
Residential mother white collar (w1)			-0.0144**	-0.00934	-0.00884
			(0.00640)	(0.00642)	(0.00662)
Residential mother employed			0.00704	0.00670	0.00488
			(0.00823)	(0.00818)	(0.00815)
Residential father white collar			-0.0370***	-0.0258***	-0.0253***
			(0.00635)	(0.00618)	(0.00613)
Residential father employed			-0.0185	-0.0173	-0.0202
			(0.0132)	(0.0133)	(0.0136)
Residential parent received welfare			0.0172	0.0126	0.00528
			(0.0116)	(0.0118)	(0.0116)
Ever married			0.0426***	0.0359***	0.0341***
			(0.00620)	(0.00597)	(0.00623)
Currently attending school				-0.00291	-0.00523
				(0.00625)	(0.00638)
Vocational training				-0.00717	-0.00722
				(0.0103)	(0.0106)
Some college				-0.00210	-0.00185

				(0.00740)	(0.00706)
Completed college				-0.0427***	-0.0444***
				(0.00712)	(0.00662)
Advanced professional degree				-0.0291***	-0.0321***
				(0.00966)	(0.00977)
Annual earnings				0.000952	0.00113
				(0.000958)	(0.00104)
5HTT Short allele					0.0104*
					(0.00541)
MAOA High transcription allele					-0.00566
					(0.00536)
Regular smoker, past 30 days					-0.00505
					(0.00695)
Marijuana user, past year					-0.0130
					(0.00820)
Lifetime other drug use					-0.0240***
					(0.00555)
Number of Lifetime chronic conditions					0.0640***
					(0.00507)
Employment sponsored health insurance					-0.00554
					(0.00766)
Other health insurance					-0.0169**
					(0.00743)
Weekly physical activity					0.00562
					(0.00671)
Constant	3.249***	2.851***	2.884***	2.896***	2.924***
	(0.00542)	(0.0545)	(0.0617)	(0.0601)	(0.0605)
R-squared	0.010	0.031	0.045	0.053	0.076

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 6. Men Regression Analyses (N= 6,392)	Self-Rated Health[1]	Occurrence of Lifetime Depression Diagnosis[2]	CES-D Scores[3]	Occurrence of Psychological or Emotional counseling[4]	Ln (BMI) [5]
Self- perceived body development index	0.000268	0.00732	-0.00936	0.00522	0.0119***
	(0.00521)	(0.00739)	(0.00561)	(0.00863)	(0.00137)
Age	-0.0272***	0.0165	0.0182**	0.0200	0.00552*
	(0.00976)	(0.0141)	(0.00811)	(0.0174)	(0.00309)
Hispanic ethnicity	-0.0659	-0.119	-0.00552	-0.0273	0.0423***
	(0.0541)	(0.0820)	(0.0573)	(0.0754)	(0.0104)
African American	0.00315	-0.127	0.227***	-0.00521	0.00558
	(0.0377)	(0.0851)	(0.0461)	(0.0894)	(0.0101)
Other race	-0.310***	-0.193**	0.133***	-0.198**	0.0237
	(0.0769)	(0.0957)	(0.0431)	(0.0838)	(0.0194)
Born in the U.S.	-0.248***	0.0921	-0.0963	0.144	0.0559***
	(0.0612)	(0.0934)	(0.0683)	(0.114)	(0.0124)
Residential mother	0.270*	0.261	-0.0432	-0.165	-0.0193
	(0.160)	(0.311)	(0.157)	(0.301)	(0.0486)
Residential father	-0.173	0.0350	0.212**	-0.286	0.00435
	(0.108)	(0.170)	(0.107)	(0.228)	(0.0281)
Children under age 18 in household	0.00439	-0.0158	-0.00160	-0.0196	-0.00452
	(0.0134)	(0.0218)	(0.0129)	(0.0274)	(0.00329)
Oldest child	0.0253	0.0263	-0.0115	-0.0809	0.00694
	(0.0354)	(0.0533)	(0.0268)	(0.0619)	(0.00816)
Live with both biological parents	-0.00371	-0.0623	-0.00367	0.00915	0.0163
	(0.0385)	(0.0709)	(0.0406)	(0.0858)	(0.0102)
Single father household	0.207	0.0566	0.0291	-0.233	-0.0393
	(0.169)	(0.315)	(0.172)	(0.309)	(0.0474)
Single mother household	0.0271	-0.00298	0.0665	-0.105	-0.0132
	(0.0750)	(0.115)	(0.0643)	(0.126)	(0.0187)
Residential mother white collar	0.0372	0.0162	-0.0784**	-0.0182	-0.0119
	(0.0360)	(0.0505)	(0.0321)	(0.0588)	(0.00906)
Residential mother employed	-0.0602	-0.138*	0.104**	-0.0186	0.0147
	(0.0560)	(0.0774)	(0.0452)	(0.0949)	(0.0116)
Residential father white collar	0.0411	0.105*	0.0869**	0.0380	-0.0304***
	(0.0441)	(0.0565)	(0.0346)	(0.0667)	(0.00793)
Residential father employed	0.176**	-0.0619	-0.199**	0.146	-0.0180
	(0.0823)	(0.153)	(0.0925)	(0.149)	(0.0230)
Residential parent received welfare	-0.00862	0.0258	0.0968	0.163*	-0.00479
	(0.0701)	(0.100)	(0.0639)	(0.0952)	(0.0143)
Currently married	-0.0178	0.0217	-0.125***	0.0562	0.0276***
	(0.0422)	(0.0786)	(0.0423)	(0.0847)	(0.0103)
Currently attending school	0.0935**	0.0569	-0.0118	0.140**	0.00530
	(0.0384)	(0.0634)	(0.0339)	(0.0687)	(0.0113)
Vocational training	0.149**	0.0366	-0.0508	0.110	-0.00443
	(0.0609)	(0.0921)	(0.0591)	(0.106)	(0.0144)
Some college	0.0677	0.0327	0.0931**	0.240***	0.000977

	(0.0448)	(0.0622)	(0.0344)	(0.0794)	(0.00967)
Completed college	0.291***	-0.144**	-0.0733**	-0.116	-0.0201**
	(0.0376)	(0.0651)	(0.0365)	(0.0711)	(0.00953)
Advanced professional degree	0.179*	0.0469	-0.0453	-0.0442	-0.0268*
	(0.101)	(0.132)	(0.0700)	(0.181)	(0.0155)
Annual earnings	0.00683	-0.0446***	-0.0294***	-0.0246**	0.00157
	(0.00899)	(0.0107)	(0.00794)	(0.0106)	(0.00179)
5HTT short allele	0.0364	0.0827	0.0289	0.0488	0.0146*
	(0.0307)	(0.0505)	(0.0276)	(0.0562)	(0.00800)
MAOA High transcription allele	-0.0470	0.0161	0.0135	-0.0348	-0.00490
	(0.0295)	(0.0499)	(0.0293)	(0.0580)	(0.00697)
Regular smoker, past 30 days	-0.221***	0.194***	0.102***	0.0656	-0.0160**
	(0.0356)	(0.0556)	(0.0378)	(0.0704)	(0.00799)
Marijuana user, past year	-0.104***	-0.00146	0.0759*	-0.0655	-0.0265***
	(0.0368)	(0.0682)	(0.0412)	(0.0649)	(0.00961)
Lifetime other drug use	-0.101***	0.378***	0.209***	0.336***	-0.0329***
	(0.0382)	(0.0508)	(0.0284)	(0.0542)	(0.00734)
Number of lifetime chronic conditions	-0.308***	-0.307***	-0.168***	-0.101**	-0.0560***
	(0.0397)	(0.0398)	(0.0267)	(0.0504)	(0.00671)
Employment-sponsored health insurance	0.0688*	-0.240***	-0.233***	0.109	-0.00980
	(0.0396)	(0.0612)	(0.0364)	(0.0810)	(0.00842)
Other health insurance	0.0767	-0.0330	-0.0962**	0.402***	-0.0156
	(0.0498)	(0.0636)	(0.0435)	(0.0815)	(0.0108)
Weekly physical activity	0.154***	-0.131**	0.0257	-0.0150	-0.000195
	(0.0501)	(0.0631)	(0.0450)	(0.0735)	(0.00914)
Constant cut1	-3.300***		-0.646**		
	(0.368)		(0.325)		
Constant cut2	-2.150***		0.0365		
	(0.388)		(0.321)		
Constant cut3	-0.915**		0.493		
	(0.383)		(0.319)		
Constant cut4	0.245		0.854***		
	(0.388)		(0.322)		
Constant cut5			1.228***		
			(0.319)		
Constant cut6			1.576***		
			(0.322)		
Constant cut7			1.816***		
			(0.321)		
Constant cut8			2.006***		
			(0.320)		
Constant cut9			2.180***		
			(0.318)		
Constant cut10			2.350***		
			(0.317)		
Constant cut11			2.477***		
			(0.316)		
Constant cut12			2.672***		
			(0.314)		
Constant cut13			2.831***		
			(0.316)		
Constant cut14			3.022***		

		(0.326)		
Constant cut15		3.224***		
		(0.342)		
Constant	-1.555***		-2.125***	2.925***
	(0.528)		(0.580)	(0.107)
R-squared				0.087

Estimates are based on Model 5
Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
[1] Estimated with ordered probit regression
[2] Estimated with probit regression
[3] Estimated with ordered probit regression
[4] Estimated with probit regression
[5] Estimated with OLS regression

Table 7A. Sensitivity Analysis. Independent Effects of Wave I Self-Perceived Breast, Curves, and Overall Development on Wave IV Self-Rated Health[1], Women (N = 7,190)

	Model 5
Self-perceived advanced breast development	-0.0354
	(0.0471)
Self-perceived slow breast development	-0.0148
	(0.0790)
Self-perceived slow curves development	0.0359
	(0.0804)
Self-perceived advanced curves development	-0.0782*
	(0.0421)
Self-perceived slow overall development	-0.0851**
	(0.0419)
Self-perceived advanced overall development	-0.102**
	(0.0421)
Age	-0.00520
	(0.00756)
Hispanic ethnicity	-0.0937*
	(0.0497)
African American	-0.154***
	(0.0295)
Other race	-0.299***
	(0.0647)
Born in the U.S.	-0.153***
	(0.0483)
Residential mother	0.246**
	(0.119)
Residential father	-0.142*
	(0.0750)
Children under age 18 in household	-0.00258
	(0.00973)
Oldest child	-5.08e-05
	(0.0223)
Live with both biological parents	0.00737
	(0.0299)
Single father household	0.186
	(0.130)
Single mother household	0.0272
	(0.0504)
Residential mother white collar	0.0597**
	(0.0249)
Residential mother employed	-0.0511
	(0.0348)
Residential father white collar	0.0660***
	(0.0251)
Residential father employed	0.161***
	(0.0569)
Residential parent received welfare	-0.0294
	(0.0442)
Ever married	-0.00537
	(0.0268)
Currently attending school	0.0732***
	(0.0237)
Vocational training	0.108**

	(0.0481)
Some college	0.0865***
	(0.0318)
Completed college	0.323***
	(0.0262)
Advanced professional degree	0.0930
	(0.0601)
Annual earnings	0.00781**
	(0.00393)
5HTT Short allele	-0.00453
	(0.0194)
MAOA High transcription allele	-0.0484**
	(0.0230)
Regular smoker, past 30 days	-0.237***
	(0.0271)
Marijuana user, past year	-0.0709**
	(0.0286)
Lifetime other drug use	-0.0740***
	(0.0267)
Number of Lifetime chronic conditions	-0.369***
	(0.0153)
Employment sponsored health insurance	0.0396
	(0.0287)
Other health insurance	0.0736**
	(0.0331)
Weekly physical activity	0.138***
	(0.0310)
Constant cut1	-2.596***
	(0.246)
Constant cut2	-1.477***
	(0.246)
Constant cut3	-0.223
	(0.244)
Constant cut4	0.947***
	(0.248)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
[1] Because this model is estimated with ordered probit regression -and marginal effects are not calculated- the coefficients are only interpretable in terms of directionality and statistical significance.

Table 7B. Sensitivity Analysis. Independent Effects of Wave I Self-Perceived Breast, Curves, and Overall Development on Occurrence of Lifetime Depression Diagnosis[1], Women (N = 7,190)

	Model 5
Self-perceived advanced breast development	0.141**
	(0.0607)
Self-perceived slow breast development	0.337***
	(0.120)
Self-perceived slow curves development	-0.309**
	(0.137)
Self-perceived advanced curves development	0.0633
	(0.0603)
Self-perceived slow overall development	0.335***
	(0.0718)
Self-perceived advanced overall development	0.271***
	(0.0656)
Age	-0.0130
	(0.0100)
Hispanic ethnicity	-0.136**
	(0.0667)
African American	-0.155***
	(0.0505)
Other race	-0.0906
	(0.0582)
Born in the U.S.	-0.0713
	(0.0734)
Residential mother	0.171
	(0.193)
Residential father	0.188
	(0.130)
Children under age 18 in household	0.0361**
	(0.0153)
Oldest child	0.0600
	(0.0374)
Live with both biological parents	-0.0909**
	(0.0458)
Single father household	0.0860
	(0.205)
Single mother household	0.184**
	(0.0752)
Residential mother white collar	-0.0507
	(0.0364)
Residential mother employed	-0.00904
	(0.0609)
Residential father white collar	0.0756*
	(0.0418)
Residential father employed	-0.0758
	(0.105)
Residential parent received welfare	-0.0681
	(0.0642)
Ever married	0.0736*
	(0.0444)
Currently attending school	0.0243
	(0.0445)
Vocational training	0.0267

	(0.0700)
Some college	-0.0162
	(0.0507)
Completed college	-0.0637
	(0.0443)
Advanced professional degree	-0.0408
	(0.0739)
Annual earnings	-0.0170**
	(0.00671)
5HTT Short allele	0.0365
	(0.0365)
MAOA High transcription allele	0.0794**
	(0.0344)
Regular smoker, past 30 days	0.150***
	(0.0434)
Marijuana user, past year	0.0330
	(0.0574)
Lifetime other drug use	0.404***
	(0.0372)
Number of lifetime chronic conditions	1.234***
	(0.0320)
Employment sponsored health insurance	-0.182***
	(0.0505)
Other health insurance	-0.0426
	(0.0472)
Weekly physical activity	-0.144***
	(0.0410)
Constant	-1.456***
	(0.390)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
[1] Because this model is estimated with probit regression - and marginal effects are not calculated- the coefficients are only interpretable in terms of directionality and statistical significance.

Table 7C. Sensitivity Analysis. Independent Effects of Wave I Self-Perceived Breast, Curves, and Overall Development on the Occurrence of Past 12 Months Psychological or Emotional Counseling at Wave IV[1], Women (N = 7,190)

	Model 5
Self-perceived advanced breast development	0.0768 (0.0469)
Self-perceived slow breast development	0.123** (0.0624)
Self-perceived slow curves development	0.0850 (0.0639)
Self-perceived advanced curves development	0.0356 (0.0406)
Self-perceived slow overall development	0.266*** (0.0425)
Self-perceived advanced overall development	0.153*** (0.0521)
Age	-0.000234 (0.00618)
Hispanic ethnicity	0.0151 (0.0488)
African American	0.250*** (0.0256)
Other race	0.156*** (0.0361)
Born in the U.S.	-0.104** (0.0525)
Residential mother	-0.0970 (0.124)
Residential father	0.0774 (0.0647)
Children under age 18 in household	0.0148* (0.00889)
Oldest child	0.00282 (0.0173)
Live with both biological parents	0.0264 (0.0300)
Single father household	0.0176 (0.126)
Single mother household	0.0297 (0.0467)
Residential mother white collar	-0.0744*** (0.0189)
Residential mother employed	0.0544* (0.0321)
Residential father white collar	0.0595** (0.0247)
Residential father employed	-0.176*** (0.0483)
Residential parent received welfare	0.0498 (0.0338)
Ever married	-0.0122 (0.0297)
Currently attending school	0.0158 (0.0264)

Vocational training	-0.108**
	(0.0447)
Some college	-0.139***
	(0.0281)
Completed college	-0.0849***
	(0.0235)
Advanced professional degree	0.0111
	(0.0440)
Annual earnings	-0.0146***
	(0.00376)
5HTT Short allele	0.0158
	(0.0173)
MAOA High transcription allele	0.0489**
	(0.0200)
Regular smoker, past 30 days	0.0724***
	(0.0261)
Marijuana user, past year	0.115***
	(0.0324)
Lifetime other drug use	0.188***
	(0.0202)
Number of lifetime chronic conditions	0.289***
	(0.0131)
Employment sponsored health insurance	-0.175***
	(0.0285)
Other health insurance	-0.0678**
	(0.0335)
Weekly physical activity	0.00161
	(0.0272)
Constant cut1	-1.065***
	(0.210)
Constant cut2	-0.401*
	(0.206)
Constant cut3	0.0658
	(0.206)
Constant cut4	0.443**
	(0.207)
Constant cut5	0.782***
	(0.207)
Constant cut6	1.115***
	(0.210)
Constant cut7	1.385***
	(0.210)
Constant cut8	1.585***
	(0.210)
Constant cut9	1.766***
	(0.208)
Constant cut10	1.983***
	(0.204)
Constant cut11	2.134***
	(0.203)
Constant cut12	2.307***
	(0.204)
Constant cut13	2.493***
	(0.200)
Constant cut14	2.721***
	(0.209)

Constant cut15	2.929***
	(0.223)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
[1]Because this model is estimated with probit regression - and marginal effects are not calculated- the c oefficients are only interpretable in terms of directionality and statistical significance.

Table 7D. Sensitivity Analysis. Independent Effects of Self-Perceived Breast, Curves, and Overall Development on the Natural Logarithm of Body Mass Index (BMI)[1], Women (N = 7,190)

	Model 5
Self-perceived advanced breast development	0.0826***
	(0.0114)
Self-perceived slow breast development	-0.0176
	(0.0147)
Self-perceived slow curves development	0.0190
	(0.0195)
Self-perceived advanced curves development	0.00732
	(0.0120)
Self-perceived slow overall development	-0.0912***
	(0.00934)
Self-perceived advanced overall development	0.0630***
	(0.0103)
Age	0.00873***
	(0.00182)
Hispanic ethnicity	0.0353***
	(0.00868)
African American	0.0293***
	(0.00810)
Other race	0.0113
	(0.0152)
Born in the U.S.	0.0633***
	(0.0103)
Residential mother	0.00961
	(0.0256)
Residential father	0.0205
	(0.0164)
Children under age 18 in household	-0.00223
	(0.00214)
Oldest child	0.00851
	(0.00551)
Live with both biological parents	0.0163**
	(0.00677)
Single father household	-0.0145
	(0.0266)
Single mother household	0.0133
	(0.0139)
Residential mother white collar	-0.00861
	(0.00671)
Residential mother employed	0.00430
	(0.00798)
Residential father white collar	-0.0240***
	(0.00623)
Residential father employed	-0.0204
	(0.0138)
Residential parent received welfare	0.00624
	(0.0110)
Ever married	0.0308***
	(0.00617)
Currently attending school	-0.00453
	(0.00634)
Vocational training	-0.0102

	(0.0102)
Some college	-0.00585
	(0.00683)
Completed college	-0.0440***
	(0.00641)
Advanced professional degree	-0.0360***
	(0.00987)
Annual earnings	0.00158
	(0.00105)
5HTT Short allele	0.0121**
	(0.00542)
MAOA High transcription allele	-0.00967*
	(0.00538)
Regular smoker, past 30 days	-0.00754
	(0.00684)
Marijuana user, past year	-0.0116
	(0.00821)
Lifetime other drug use	-0.0273***
	(0.00568)
Number of lifetime chronic conditions	0.0410***
	(0.00408)
Employment sponsored health insurance	-0.00384
	(0.00776)
Other health insurance	-0.0186**
	(0.00730)
Weekly physical activity	0.00677
	(0.00686)
Constant	2.906***
	(0.0627)
R-squared	0.089

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
[1] Estimated with Ordinary Least Squares (OLS)

Appendix 1: Items in the Add Health Center for Epidemiological Studies Depression (CES-D) scale

Below is a list of some ways you may have felt or behaved. Please indicate how often you have felt this way during the last week by checking the appropriate space. Please only provide one answer to each question.

(1) Things that usually don't bother you bothered you.

(2) You didn't feel like eating, your appetite was poor.

(3) You felt that you could not shake off the blues, even with help from your family and your friends.

(4) You felt that you were just as good as other people

(5) You had trouble keeping your mind on what you were doing.

(6) You felt depressed.

(7) You felt that you were too tired to do things.

(8) You felt hopeful about the future.

(9) You thought your life had been a failure.

(10) You felt fearful.

(11) You were happy.

(12) You talked less than usual.

(13) You felt lonely.

(14) People were unfriendly to you.

(15) You enjoyed life.

(16) You felt sad.

(17) You felt that people disliked you.

(18) It was hard to get started doing things.

(19) You felt life was not worth living.