Risk Orientation and Risk-Taking Behavior: The Impact of Race/Ethnicity and

Gender on Mental Health and Substance Use among Young Adults

By

Mary Therese Laske Bell

Dissertation

Submitted to the Faculty of the

Graduate School of Vanderbilt University

in partial fulfillment of the requirements

for the degree of

DOCTOR OF PHILOSOPHY

in

Sociology

May, 2014

Nashville, Tennessee

Approved:

C. André Christie Mizell, Ph.D.

Tony N. Brown, Ph.D.

Tyson H. Brown, Ph.D.

Derek M. Griffith, Ph.D.

Richard T. Serpe, Ph.D.

ACKNOWLEDGEMENTS

LIST OF TABLES

LIST OF FIGURES

TABLE OF CONTENTS

CHAPTER I

INTRODUCTION

Current research on the well-being of youth and young adults claims that the period of adolescence, especially in the mid to late teen years, is associated with a higher propensity for risk-taking behavior than the periods of childhood and adulthood (Gardner and Steinberg 2005). Statistics on binge drinking, unsafe sex practices, and crime and delinquency support this claim (Gardner and Steinberg 2005). Scholars studying delinquent behavior have referred to this phenomenon as the "age effect" and suggest that adolescents generally "age out" of risk-taking behaviors that lead to delinquency (Hirschi and Gottfredson 1983; Massoglia and Uggen 2010). The period of adolescence, then, poses a threat to the well-being and general safety of youth. For example, risk-taking behaviors have been linked to higher levels of injury and mortality among youth who are ages 15 to 20. Further, while most adolescents tend to "age out" of this high-risk period, less is known about the precursors of such behaviors or under what circumstances these behaviors continue into young adulthood.

The preponderance of studies in this area focus heavily on individual-level, psychological, or neurological/biological explanations for the relationship between risk and well-being (for an exception see Morenoff, Sampson, and Raudenbush 2001). What appears to be missing from this research is a critical look at how structural forces (e.g., the hierarchical systems of race/ethnicity and gender) play a role in shaping how risk impacts well-being. In the social sciences, scholars typically think of at-risk youth as those who are exposed to certain conditions that increase their risk of physical (e.g., car accidents) or mental/emotional (e.g.,

depression) harm. For instance, youth who have a negative relationship with a parent or those who have trouble in school may be at greater risk for delinquent activities, poor mental health, or dysfunctional social relationships (Christie-Mizell et al. 2011). One explanation for the greater likelihood of harm to youth who are at risk is that individual-level factors (e.g., behavior problems in childhood) impact adolescents' *risk orientation* and their *risk-taking behavior*. Although related, these terms are unique and may function differently in the risk and well-being relationship.

On the one hand, risk orientation can be thought as the tolerance for risk. Ehrlich and Maestas state that risk orientation is "one's general degree of comfort with facing uncertain gains or losses" (2010: 658). Youth who have high risk orientation may have greater tolerance for witnessing a peer cheat on a test in school or for riding in a car with someone who is speeding and driving aggressively. Youth with low risk orientation may be less tolerant of such risk-taking behaviors. On the other hand, risk-taking behavior can be thought of as the willingness to participate in behaviors that expose the adolescent to an increased likelihood of physical or mental harm. High risk-taking adolescents may be more likely to drink and drive, have unprotected sex, or use a drug about which they know very little information. Low risk-taking youth may abstain from alcohol and drugs and may abstain from sex or practice safe sexual intercourse. Youth with high risk orientation may be more likely to be high risk-takers, or they may be no different from their low risk orientation peers in terms of their willingness to engage in risky behavior.

Just as certain individual-level characteristics put some youth at risk of harm compared to their peers, these characteristics also contribute to young people's risk orientation and their risk-taking behavior. To illustrate, research on adolescents has often focused on characteristics such

as self-esteem (i.e., an individual's global sense of self-worth) and the sense of control (i.e., an individual's perception that s/he has mastery over personal outcomes) and ways that such psychosocial factors may interrupt or shape risk among youth (Christie-Mizell 2003; Christie-Mizell et al. 2011). Low self-esteem or low sense of control, for example, may each correlate with risk orientation and risk-taking behavior. These psychosocial resources can thus be considered *protective factors* for risk. Jenson and Fraser suggest that protective factors are those "personal resources" that help adolescents "prevail over adversities" (2006: 11).

As mentioned above, risk is a signature characteristic of the adolescent life stage. Scholars in the neurological/biological tradition and developmental psychologists have explored this phenomenon extensively. Different explanations for increased risk-taking behavior in adolescence have been advanced in these fields. Some scholars have argued that the difference in risk-taking between adolescents and adults can be explained by psychosocial maturity (e.g., impulse control, sensation seeking) (Cauffman and Steinberg 2000; Steinberg and Cauffman 1996; see also Gardner and Steinberg 2005). In other words, psychosocial capacities, such as being able to control one's impulse to take risks, coincide with age. From a life course perspective, adolescents simply have not had the exposure or life experience that will allow them to fully make the type of decisions that they will be able to make in adulthood. Thus, adolescents take more risks because they are less psychosocially developed than adults.

One possible explanation for higher risk-taking in adolescence that has been ruled out by behavioral scientists is that youth are "irrational individuals who believe they are invulnerable and who are unaware, inattentive to, or unconcerned about the potential harms of risky behavior" (Steinberg 2007: 39). In fact, quite the opposite is supported by a majority of studies. Adolescents reason in ways similar to adults, and they are not inept at perceiving risks or

understanding the potential harm involved in taking risks (Steinberg 2007). Despite knowing and understanding the risks associated with certain behaviors, adolescents are still more likely to follow through with taking risks than adults. Unfortunately, this pattern suggests that educating youth on the harms associated with behaviors such as binge drinking and unsafe sex practices may do little to completely deter them from such behaviors (Steinberg 2007).

Developmental neuroscientists have suggested that the greater propensity for risk among youth has to do with brain development and psychological maturity. Steinberg (2007) explains that there are two networks in the brain: the socioemotional network which processes social and emotional stimuli and is associated with reward processing, and the cognitive-control network which is associated with planning, thinking ahead, and self-regulation. In adolescence, these two networks in the brain compete with one another (Steinberg 2007). Especially during pubertal development, the socioemotional network dominates in this competition resulting in greater propensity to risk. Therefore, although adolescents may be able to reason logically and assess risk as accurately as adults, they may be more affected by emotional stimuli in their environment and react in riskier ways.

Another explanation for the age difference in risk-taking suggests that adolescents are more influenced by their peers than adults; hence, youth are more likely to participate in risk-taking behavior in the presence of peers, rather than when alone (Allen, Porter, and McFarland 2006; Gardner and Steinberg 2005). However, this line of reasoning is not without debate. Some scholars from the peer influence perspective contest whether adolescents spend more time in peer groups than adults (Albert and Steinberg 2011; Bahr, Hoffmann, and Yang 2005; Trucco et al. 2011). These researchers portend that it is not necessarily that there is greater opportunity

for group risk, but instead that peers may simply be more influential in the lives of adolescents compared to their adult counterparts (Gardner and Steinberg 2005).

Is risk-taking always antithetical to healthy development? It is important to note that the association between risk and well-being may not always be a negative one. For instance, children and adolescents who take very few risks may be less likely to engage in social relationships with new people, inhibiting their social skills and normal development. Furthermore, the aging out effect described above is evidence that individuals who take risks in childhood and adolescence are not typically irreparably damaged. Risk-takers in adolescence generally grow up to be productive, well-developed young adults. Therefore, all risk orientation and behavior cannot be labeled as bad or negative for well-being. In Chapter 2, I expand on the potential benefits of risk orientation for youth in addition to explaining when risk orientation may have negative effects on well-being.

The majority of the research on risk-taking is well thought out and is important for our understanding of heightened risk orientation and behavior in adolescence. However, what is missing from this work is the impact of what sociologists often refer to as indicators of social status. At birth, each individual is placed at some point on the hierarchical spectrum in society based on ascribed characteristics. Social statuses, such as race/ethnicity and gender, are inextricably linked to placement in this hierarchy such that different groups are more or less privileged (i.e., have more or less access to resources and opportunities) based on their status within the hierarchy (e.g., Acker 1990; Gallagher 2003; Levin et al. 2002).

Generally speaking, males are more privileged than females and whites are more privileged than racial and ethnic minorities (Budig and England 2001; Hill Collins 2005; Oliver and Shapiro [1995] 2006; Wilson 2010). By way of illustration of the privilege associated with

social status, imagine a child who is about to be born into poverty. This child's parents likely live in a poor community with limited resources (e.g., limited job opportunities; Wilson 1996). The parents' options for the child's education are thus probably limited to a public school with a high student-to-teacher ratio, outdated textbooks, and few extracurricular activities. The family's neighborhood itself may have a high crime rate. For instance, a combination of high transience in the neighborhood -- where the population is unstable due to many people moving into and out of the neighborhood rather quickly -- and a lack of supervision in the community due to many parents having to hold two or three jobs to support a family creates more opportunity for crime and delinquency (Bursik 1988; Sampson 1987; Sampson and Groves 1989; Shaw and McKay [1942] 1969; Stark 1987). Before this child is even born, we can guess that he or she will be more disadvantaged in terms of receiving a good education, staying out of trouble, avoiding criminal victimization, and going to college relative to a child born into a middle class or wealthy family.

As it relates to risk orientation and risk-taking behavior, social status may be very important for clarifying the relationship between risk and well-being. Such a sociological examination may better answer a variety of questions, including does race/ethnicity impact risk orientation equally for boys and girls? And similarly, does the effect of gender on risk orientation vary by race/ethnicity? Further, does social status moderate the relationship between neighborhood location (e.g., urban versus all others) and propensity for risk orientation? Furthermore, how does social status matter in terms of self-concept? That is, is the relationship between self-concept (e.g., self-esteem and personal sense of mastery) and well-being modified by race/ethnicity or gender? These questions are exemplars of the type of questions and relationships that I clarify in this dissertation. Such questions can only be fully answered by

incorporating a solidly sociological perspective into what is already known about risk and well-being from existing research in psychological social psychology, developmental psychology, biology, and neuroscience.

In this dissertation I borrow from sociology's focus on social status in examining the relationship between risk orientation and well-being. Specifically, I study three main outcomes including depressive symptoms, quantity of alcohol consumption, and frequency of drinking. While the importance of individual-level factors for well-being is made clear in other disciplines, a focus on racial/ethnic and gender hierarchies is less common in this area of research. Using data from the National Longitudinal Survey of Youth (NLSY79) main file, the NLSY-Child sample (NLSY-C), and the NLSY-Young Adult sample (NLSY-YA; Center for Human Resource Research 2002), I examine the role of risk orientation for young adults of varying racial/ethnic and gender backgrounds to uncover the independent and multiplicative effects of race/ethnicity, gender, and socioeconomic background on well-being.

Theoretical Background

Risk and Resilience. The predominant theoretical paradigm that guides this dissertation is a *risk and resilience* framework (Anthony and Cohler 1987; Dent and Cameron 2004; Egeland, Carlson, and Sroufe 1993; Hollister-Wagner, Foshee, and Jackson 2001; Kaplan 2005; Luthar, Cicchetti and Becker 2000; Schofield 2001; Rutter 1985; 2001). According to Hollister-Wagner, Foshee, and Jackson, "*Resiliency* is the ability of individuals to survive and thrive despite exposure to negative circumstances" (2001: 445; emphasis in original). The concept of resilience is more than just the absence of vulnerability, but rather the ability to tolerate strain or to "bounce back" from adversity (Anthony and Cohler 1987; Dent and Cameron 2004). Also,

resilience is not an individual trait, but rather it is a dynamic process of adaptation that involves

drawing on available resources (e.g., feelings of self-competence) to regain a sense of balance

(Egeland, Carlson, and Sroufe 1993; Kaplan 2005; Luthar, Cicchetti and Becker 2000; Rutter

1985, 2001; Schofield 2001). Despite the disadvantages they face, minorities sometimes have

better psychological well-being and lower substance use compared to their dominant group

peers. Scholars argue that these often paradoxical findings are better explained by marginalized

groups' superior ability to adapt and their utilization of resource substitution or employing

available resources for the group to which they belong (Mirowsky and Ross 2003).

Rather than assuming that the underlying mechanisms impacting well-being work

similarly across race/ethnic and gender lines or that a common fundamental cause exists for all

groups, I critically assess exactly how social status may operate in processes leading to mental

health and well-being outcomes. Models of risk and resilience represent an appropriate approach

to studying well-being among youth and adolescents transitioning into young adulthood for two

reasons. First, current risk and resilience frameworks (e.g., Hollister-Wagner, Foshee, and

Jackson) were designed specifically to investigate and understand the outcomes of youth –

especially as they transition from childhood to adolescence and from adolescence to young

adulthood (see also, Benson, Scales, and Mannes 2003; Christianson and Evans 2005; Evans,

Marsh, and Weigel 2010). Some researchers (e.g., Christie-Mizell, Pryor and Grossman 2008;

Turner and Muller 2004) have utilized the stress process paradigm to explain child and

adolescent outcomes. However, risk and resilience models draw on a wider array of child- and

adolescent-specific factors (e.g., observation of the home environment, behavior problems in

childhood) to explain differences in outcomes. Second, the risk-resilience framework used here

and developed by Hollister-Wagner and his colleagues (2001) provides four possible models for

how protective factors can independently, additively, or multiplicatively promote resilience. These models include the compensatory model, the risk-protective model, the protective-protective model, and the challenge model.

According to the Hollister-Wagner risk-resilience framework (2001), the *compensatory model* is an additive approach, suggesting that risk factors increase the likelihood of poor well-being and protective factors decrease the likelihood of poor well-being in a linear fashion. The *risk-protective model* suggests that there is an interaction between risk and protective factors such that protective factors reduce the otherwise deleterious effects of stressors or risk. The *protective-protective model* suggests that having multiple protective factors (e.g., supportive parent-child relationships, self-esteem, positive social skills) through interaction will promote greater resilience than any single protective factor alone. Finally, the *challenge model* suggests that risk has a positive effect on well-being up to a certain point, but that as risk continues to increase, it becomes detrimental to one's well-being. In other words, under certain conditions, risk may bear a curvilinear relationship with well-being (Hollister-Wagner, Foshee, and Jackson 2001).

In their own analyses of these models on aggressive behavior, Hollister-Wagner and his colleagues (2001) found support for only the challenge and protective-protective models among girls, and none of the models were supported among boys. While each of these four models may lead to the conclusion that risk and resilience operate differently across social status, I specifically test the *challenge model* hypothesis in this dissertation. I seek to explore whether some risk orientation is good for the well-being of youth, and whether further increases in risk orientation have detrimental effects on young adults. More specifically, I seek to explore whether similar patterns may be found across social status groups for mental health and

substance use outcomes. In addition to the challenge model, I also incorporate elements of life course theory and intersectionality to explore the questions raised in this dissertation.

The Life Course Perspective. Outcomes such as mental health and substance use must arguably be studied longitudinally. Rather than being non-existent at one time or in one setting and existent in the next, the precursors and underlying mechanisms of mental health and substance use outcomes point to the fact that these are complex processes that take time and context to develop. Therefore, the life course perspective offers a compelling complementary framework with which to study depressive symptoms and alcohol consumption among young adults. As George (2007) points out, a plethora of work from mental health scholars has focused on the social causation-selection debate. That is, mental health researchers often have the goal of establishing the social causes and consequences of mental illness (Johnson 1991; Ross and Mirowsky 1995; Turner and Lloyd 1999; Turner, Wheaton, and Lloyd 1995). For instance, one question stemming from this debate might be *Does socioeconomic status lead to poor mental health outcomes (social causation), or are those with mental illness selected into lower socioeconomic positions because of the limits of their disease (social selection)?* Life course scholars diverge from this approach of causation versus selection in that they have traditionally been more concerned with the reciprocal and processual nature between social factors and outcomes. In other words, the life course approach to studying mental health would focus on trajectories of mental health across the life course and establishing the temporal ordering of, and possibly the mutual causation between, social factors and mental health outcomes (George 2007). Thus testing reciprocal relationships and cross-lagged effects is commonplace for life course scholars (George 2007).

10

Intersectionality. Social stratification scholars argue that lesser valued social statuses (e.g., female, racial/ethnic minority status) should be associated with more detrimental mental health and well-being outcomes. Link, Phelan and colleagues, for example, have diligently argued in their research that socioeconomic status is the leading underlying cause of disparities in mortality (Link and Phelan 1995, 1996, 2002; Phelan, Link, and Tehranifar 2010; Phelan et al. 2004). Other scholars have argued that a double jeopardy exists, wherein having two disadvantaged statuses is more damaging than having only one (Chappell and Havens 1980; Dowd and Bengston 1978; Good and Wood 1995). Still others have tested the possibility of a triple jeopardy when race, class, and gender, for example, are intersected to affect well-being (Rosenfield 2012). It is not clear from existing research whether the intersection of two, three, or more social statuses is the best approach. In fact, it is possible that the number of social statuses that intersect to impact well-being trajectories is endless and beyond the scope of most research projects. What is clear from the intersectionality perspective, though, is that mental health patterns are complicated by race/ethnicity, gender, and socioeconomic status. Therefore, one aim of this dissertation is to assess the intersections of race/ethnicity, gender, and socioeconomic status as they affect the development of risk orientation and the manner in which risk orientation relates to well-being.

In her 1989 address to the University of Chicago Legal Forum, Kimberle Crenshaw, one of the pioneers of the intersectionality approach, stated that social statuses can no longer be viewed as mutually exclusive categories in terms of both individuals' experiences and scholarly research. In other words, the significance of gender might mean something different to African Americans and whites, and the significance of race/ethnicity might mean something different for males and females. Uncovering some of this social status overlap and examining differences in

11

mental health and substance use patterns across race-ethnicity and gender is one goal of this research. Therefore, an intersectionality framework helps to guide this dissertation in formulating expectations about race and gender differences in the processes examined.

Research Questions and Contribution to the Literature

There are four broad research questions that I address in this dissertation. First, *do youth "age out" of risk orientation?* Put another way, does the same age effect seen in risk-taking behaviors occur when examining risk orientation? Here, I assess whether there is a curvilinear association between age and risk orientation among youth. Second, *is there variation in the shaping of risk orientation across racial/ethnic and gender groups?* In other words, I seek to explore whether risk orientation is shaped similarly or differently for white, black, and Latino youth and for males and females. Third, *is there a curvilinear relationship between risk orientation and mental health and substance use outcomes?* Specifically, I seek to explore whether initial increases in risk orientation have positive effects on well-being while higher risk orientation has negative consequences for mental health and alcohol use. Fourth, *is there a reciprocal relationship between risk orientation and well-being?* Here, I examine the reciprocal nature of risk orientation with depressive symptoms, quantity of alcohol consumption, and frequency of drinking while holding risk-taking behaviors constant.

Though there are only four broad research questions, there are many layers here to be examined. For instance, not only do I examine between race/ethnic differences in the impact of risk on well-being, but also I look at within race/ethnic differences in this relationship by gender. Similarly, I examine differences between males and females, and additionally I look at differential patterns within gender across race/ethnic status. Furthermore, in both my

examination of within race/ethnic differences and within gender groups, I explore differences in patterns across socioeconomic status, psychosocial resources, and neighborhood environment. Finally, using longitudinal data, I focus on these processes in young adulthood when youth are 15-28 years old while controlling for child and adolescent factors when these youth were 4-14 years old.

Utilizing Hollister-Wagner and colleagues' (2001) risk-resilience model, I am able to assess well-being of youth of different race/ethnic and gender backgrounds. Focusing on the challenge model hypothesis, this dissertation allows me to test whether the curvilinear relationship between risk and well-being is supported with data from a nationally representative sample of youth, and whether the model is more salient for a particular segment of youth (e.g., by gender or by race/ethnicity).

Conceptual Models. Figures 1, 2 and 3 show simplified models of the direct, multiplicative, and reciprocal relationships I consider in this dissertation. The relationships displayed are calculated across race/ethnicity and gender status– i.e., gender variation is examined within race/ethnicity and racial/ethnic variation is assessed within gender groups. Each of the four main research questions is represented in the diagrams. A number of expectations are addressed in these figures. To start, in Figure 1, I link a number of demographic characteristics and SES variables as well as psychosocial resources, and child and adolescent factors to risk orientation among the pooled sample as well as across the race/ethnic and gender subgroups in my sample. Figure 2 represents the illustration for the test of the challenge model hypothesis and includes the same controls as Figure 1 plus risk-taking behaviors. In Figure 3, the reciprocal effects between risk orientation and mental health and alcohol consumption are tested. The same controls used to address the research questions in Figure 2 are included here.

Child and Adolescent Controls
Behavior Problems Index
HOME-SF Scale
Mother's Educational Attainment
Lived in Poverty (1=Yes)
Lived in the Central City (1=Yes)
Social Status [A]
African American (1=Yes)
Latino (1=Yes)
Male (1=Yes)
Sociodemographics
Age
Age Squared
Household Income
Lives in the Central City (1=Yes)
Perceived Neighborhood Disorder
Psychosocial Resources
Self-Esteem
Personal Sense of Mastery

Risk Orientation

Among the Pooled Sample
and by Race/Ethnicity and Gender

Figure 1: First Simplified Conceptual Model: How is risk orientation shaped in young adulthood?
Notes:
[A] Analyses conducted on the pooled sample control for social status variables. In the subgroup analyses, gender is controlled among race/ethnic groups and race/ethnicity is controlled in the models for males and females.

Depressive Symptoms

Quantity of Alcohol Consumption

Frequency of Alcohol Consumption

Risk Orientation and Risk Orientation Squared

Among the Pooled Sample and by Race/Ethnicity and Gender
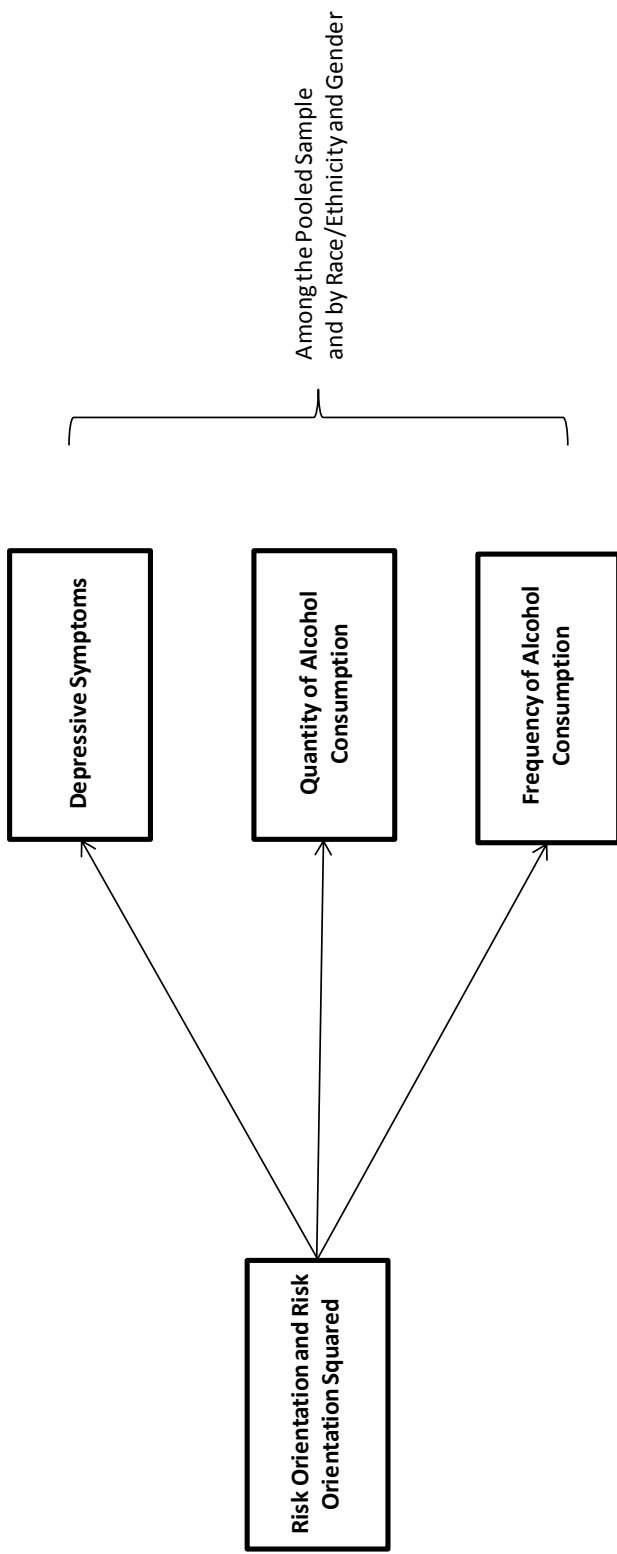
Figure 2: Second Simplified Conceptual Model: Is there a curvilinear relationship between risk orientation and mental health and substance use outcomes?
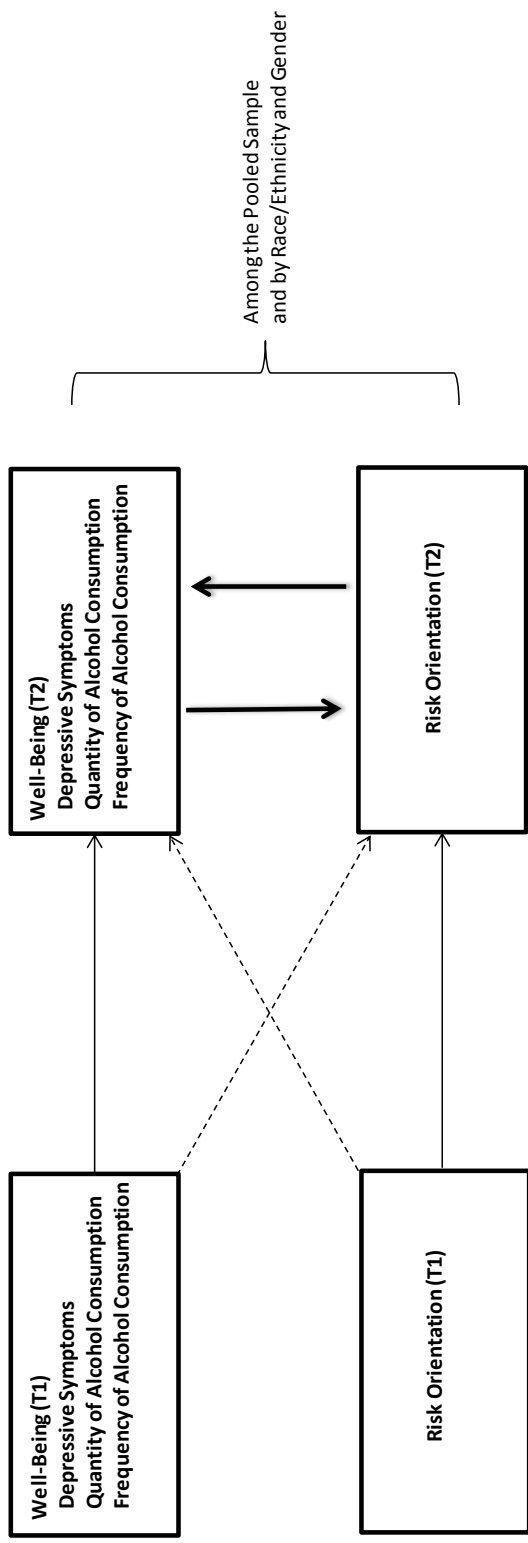
Figure 3: Third Simplified Conceptual Model: Is there a reciprocal relationship between risk orientation and well-being?

Among the Pooled Sample
and by Race/Ethnicity and Gender

Well-Being (T2)
Depressive Symptoms
Quantity of Alcohol Consumption
Frequency of Alcohol Consumption

Risk Orientation (T2)

Well-Being (T1)
Depressive Symptoms
Quantity of Alcohol Consumption
Frequency of Alcohol Consumption

Risk Orientation (T1)

Cross-lagged effects between the Time 1 stabilities (risk orientation at Time 1 and mental health and alcohol consumption at Time 1) and the opposite outcome are relaxed in order to properly calculate the reciprocal effects.

Contributions to the Literature. This dissertation offers several innovations to the research literature. First, in my exploration of risk and well-being, this research focuses on risk orientation while holding constant risk-taking behaviors. As previously mentioned, a youth with high risk orientation may not necessarily exhibit high risk-taking behaviors. Therefore, measuring both risk orientation and risk-taking behavior allows me to understand the relationship between risk orientation and well-being both for youth who act in risky ways and for those who do not. There may be important differences between youth with high and low risk orientation that would be missed by only examining the impact of risk-taking behavior on well-being. For example, even though a respondent may not act on his risk-taking impulses (e.g., he has high risk orientation but low risk-taking behavior), he may experience the same manifestations of well-being outcomes as a respondent who exhibits high risk-taking behavior. Conversely, the trajectories of these two youth may be different. Either way, using both of these measures of risk may unearth a more thorough understanding of the impact of risk on well-being than only considering one or the other measures of risk.

Second, this study employs more than twenty years of longitudinal data to explore the relationships among risk orientation, risk-taking behavior, and well-being for a nationally representative sample of African American, Latino, and white youth. These data allow me to better assess temporal ordering in the shaping of risk and resilience than cross-sectional data while carefully accounting for a host of family and individual characteristics over time. Third, because I control for child and adolescent factors, I am able to take the life course into account

17

when examining mental health and alcohol consumption in young adulthood. It is possible that these child and adolescent characteristics might reduce or heighten the effects of risk orientation on well-being.

Finally, this research makes a significant contribution to the literature by examining multiple indicators of well-being. In her often-cited 2005 *Journal of Health and Social Behavior* piece, Carol Aneshensel urges sociologists to advance the study of health and well-being by examining a plethora of outcomes in one study. She argues that studies which focus on one particular well-being outcome will erroneously label persons with disorders or conditions not being studied as "well" (Aneshensel 2005). For example, a study that only examines depressive symptoms as an outcome may fail to capture other indicators of poor well-being for respondents who do not experience depressive symptoms. Therefore, in this study, I investigate multiple measures of well-being, including depressive symptoms, quantity of alcohol consumption, and frequency of drinking to capture the essence of risk and resilience for a diverse group of respondents.

CHAPTER II

LITERATURE REVIEW

In this chapter, I review the research literature on risk orientation, risk-taking behavior, mental health, and substance use along racial/ethnic and gender lines. In doing so, I provide two points of clarification. First, sociologists have studied risk-taking behaviors more than risk orientation; therefore, much of the review focuses on literature pertaining to risk-taking behavior. When writing about risk-taking behaviors or risk orientation in particular, I use these terms. However, the term "risk" is used when referring to both risk-taking behaviors and risk orientation together. Second, in terms of mental health and substance use, this dissertation focuses specifically on depressive symptoms and alcohol consumption. Nevertheless, parts of the review may highlight findings from mental health literature or substance use literature more generally in order to make a broadly applicable point.

There are four main objectives of this chapter. The first objective is to provide an overview on what researchers currently know about risk, youth, and well-being. Few scholars disagree that youth participate in significantly more risk-taking behavior than older adults, but there have been conflicting explanations for why this life stage is so unique. Therefore, in this section, I review some of the perspectives scholars have used to explain this increased risk among youth.

The second objective of this chapter is to review the literature on risk orientation and social status. Here, social status and risk orientation are defined and the relationship between them is described. The third objective is to examine the linkages among social status, mental

health, and substance use. This section focuses specifically on racial/ethnic and gender

hierarchies as they relate to mental health and substance use. Findings from intersectionality

research are incorporated here to demonstrate how the consequences of these hierarchical

systems are complex and multifaceted. I also discuss the importance of childhood and

adolescent factors in studying mental health and well-being in young adulthood. Therefore, this

section argues on behalf of a life course approach to analyzing mental health and substance use

processes in young adulthood.

Finally, the fourth objective of this chapter is to discuss the innovations and expansions

of this dissertation above and beyond the current literature. It should be clear by the end of this

chapter how merging the risk and resilience framework with literatures on social status,

intersectionality, and the life course perspective can illuminate our understanding of disparities

in mental health and substance use outcomes among young adults. I end this chapter with a

summary of the contributions of this dissertation as well as hypotheses for the relationships

studied.

Risk, Youth, and Well-Being

Adolescents and young adults (including the teen years and early twenties) engage in

higher levels of risk-taking behaviors such as using illicit substances, engaging in risky sexual

practices, and driving recklessly (Gardner and Steinberg 2005). This increase in risk-taking puts

youth at greater risk of harm, including detriments to mental health, and even serious injury or

death (Steinberg 2007). This unique aspect of this period in the life course relative to childhood

and later adulthood is considered to be a social fact and in early research was coined as the

"storm and stress of adolescence" (Hall 1904; see also Arnett 1999). And, although more

contemporary research does not indicate that "storm and stress" is characterized by widespread

maladjustment among youth, especially adolescents as previously put forth, what is unchallenged

is that risk-taking behaviors do increase during this period of time and the increase is relatively

stable across cohorts (Arnett 1999; Casey et al. 2010; Kessler et al. 2005; see also Silveri et al.

2004). Nevertheless, an understanding of why risk-taking behavior spikes among youth is

underdeveloped and many popular explanations focus on individual-level factors that contribute

to increased risk-taking. The process of how risk affects mental health and substance use is

complex, though, and deserves some attention to help research move toward a fuller

understanding of these outcomes in young adulthood. In this section, I first explore some of the

explanations for increased risk scholars have offered. Then, I define social status and discuss

how social status differences among youth might add to our understanding of mental health and

substance use in young adulthood. Current literature will be cited to support my claim that risk

orientation might vary across race/ethnicity and gender lines. Finally, I examine some of the

potential positive and negative effects of risk on well-being to illustrate the complex nature of

this process.

      Explanations for increased risk among adolescents and young adults have been largely

dominated by such disciplines as developmental psychology and neuroscience. For a long time,

it was believed that youth were simply "irrational individuals who believe they are invulnerable

and who are unaware, inattentive to, or unconcerned about the potential harms of risky behavior"

(Steinberg 2007: 39). Hall (1904) famously declared that all youth transitioning through this life

stage experience a storm and stress period where they become emotionally and behaviorally

unstable before maturing into older adulthood. However, this explanation has not been

supported with scientific research. Instead, research on risk suggests that young people are as

likely as adults to assess the risk in a given situation, reason logically about it, and understand the consequences of taking risks (Casey, Jones, and Hare 2008; Reyna and Farley 2006; Steinberg 2007; Tau and Peterson 2009). Why, then, do they consistently take more risks than adults?

One line of research, the psychological maturity framework, suggests that the brain is still developing in the teens and early twenties and that youth might be ruled more by emotions than cognitive processes, especially once they experience puberty (Collins and Steinberg 2006; Johnson and Gerstein 1998). According to proponents of this explanation, increased risk-taking is a product of the dominance of the socioemotional part of the brain (e.g., that which reacts to emotional stimuli and is associated with reward processing) over the cognitive-control part of the brain (e.g., that which controls such functions as planning and regulating one's impulses) (Drevets and Raichle 1998; see also Casey et al. 2008; Steinberg 2007; Tau and Peterson 2009). However, young people are not constantly in a state of emotional arousal and do often make rational decisions effectively (Steinberg 2007). With increased exposure to peer groups, though, the conflict that can occur among peers increases. The socioemotional part of the brain is thus activated and is able to "diminish the regulatory effectiveness of the cognitive-control network" (Steinberg 2007: 40). As youth mature and the brain develops more, the cognitive-control part of the brain is better able to regulate impulse control and they become less susceptible to risk-taking than in their younger years (Casey et al. 2008; Steinberg 2007; Tau and Peterson 2009).

Evidence from research on illicit drug use supports this psychological maturity explanation. Johnson and Gerstein (1998) found that youth born in the 1960s and 1970s were more likely to use illicit drugs (e.g., marijuana, cocaine, and hallucinogens) at a younger age than the cohort born shortly after World War II. One explanation they provide for this finding is

twofold. The population of young people outgrew the population of older people in the 1960s

and 1970s (Johnson and Gerstein 1998). For one thing, this demographic change created more

laborers than necessary to fill available jobs, leaving youth discouraged and turning to drugs at a

younger age than previous cohorts (Johnson and Gerstein 1998). For another thing, this

imbalance in young and old population sizes meant that young people in the 1960s and 1970s

had more people their own age with whom to socialize. Johnson and Gerstein (1998) argue that

having more social interactions with young people who might be less likely to condone drug use

compared to older people who might be more opposed to drug use could explain the increased

use of illicit drugs among younger people in the 1960s-1970s cohort.

Another explanation for increased risk-taking behavior in this period of the life course is

that youth are more influenced by their peers than adults are by their peers. Evidence that

adolescents commit more delinquent acts in groups than when alone is thought to support this

argument (Allen, Porter, and McFarland 2006; Beaver et al. 2011; Gardner and Steinberg 2005;

Knecht et al. 2010; Kreager, Rulison, and Moody 2011; McGloin 2009; Warr 2009).

Conversely, adults are much more likely to commit crimes alone (Zimring 1998). The influence

of peers on risk-taking behaviors has also been shown to continue into young adulthood. When

with peers, adolescents and young adults are more likely to make risky decisions than older

adults (Andrews et al. 2002; Gardner and Steinberg 2005; Horvath and Zuckerman 1993). The

peer group has an increased influential power over decisions and behavior in youth than in

adulthood (Gardner and Steinberg 2005). Gardner and Steinberg (2005) argue that an

individual's own inclination toward risky behavior in combination with being surrounded by

other risk-prone peers is what makes young people more susceptible to risk-taking behaviors

(Gardner and Steinberg 2005).

A third explanation of increased risk-taking among youth has been that it is a result of psychosocial immaturity (Cauffman and Steinberg 2000; Steinberg and Cauffman 1996; see also Gardner and Steinberg 2005). Whereas the *psychological maturity* framework emphasizes brain development, the *psychosocial immaturity* explanation focuses on social skills. Both perspectives link immaturity to impulse control. From the psychosocial immaturity perspective, psychosocial capacities (e.g., impulse control and sensation seeking) develop with age (Gardner and Steinberg 2005). The more life experiences gained, the better able people are to weigh the costs and benefits of risk-taking behavior and control their impulses (Gardner and Steinberg 2005). Youth simply have not had enough life experiences to be fully psychosocially mature. Thus, the age-risk relationship is explained by maturation (Gardner and Steinberg 2005). To that end, psychological maturity is a result of both brain development and gaining life experiences. The latter, life experience, is particularly sociological insofar as such experience is gained in social groups and through social interaction.

Risk-taking is not absolutely negative and does not always lead to poorer outcomes. While damage to mental health and well-being is possible with increased risk, some risk is necessary in for youth to develop into productive, well-adjusted adults. Indeed, according to Hollister-Wagner et al.'s (2001) challenge model hypothesis, some risk orientation might have positive effects on youth outcomes, but higher levels of risk orientation might have negative consequences. In what follows, I first discuss some of the potential positive effects of risk on youth outcomes, and then discuss how risk might be detrimental for mental health and substance use. The relevance of social status for these consequences is also described.

Positive Effects of Risk. Adolescents and young adults who take very few risks may have more trouble making friends and developing social bonds that facilitate social support, a resource

that buffers the effects of stress on psychosocial well-being (Pearlin et al. 1981). Youth must

risk being rejected in order to make new friends (Noam and Fischer 1996). Only through

displays of vulnerability can youth build close relationships (Ingram and Price 2009; Noam and

Fischer 1996). Friendships are important protective factors for young adults and, especially

during adolescence when peer relationships are so important, taking risks to gain friendships will

have a positive impact on outcomes (Sherman, Lansford, and Volling 2006). In their meta-

analysis of black men's mental health, Watkins, Walker, and Griffith (2010) found that

relationships with significant others was an important factor in black men's mental health in two-

thirds of the studies they analyzed. Therefore, these risks might be particularly important for

African American youth to take to improve mental health.

I also propose that there are positive effects of risk on mental health among youth via

dating relationships. Young people who are risk-averse (e.g., those who avoid risks, play by the

rules, and prefer to plan things over being spontaneous) may not reap the benefits of dating

relationships. Dating requires that youth stay out after dark going either to the movies,

somewhere in the neighborhood to eat, or to their dating partner's house, for instance. However,

the psychological benefits of dating may depend on social context. Some youth have to take

more risks to stay out late. Crime rates are generally higher in areas of concentrated

neighborhood disadvantage (e.g., where unemployment and poverty rates are high and two-

parent households are rare) (Bursik 1988; Morenoff, Sampson, and Raudenbush 2001; Sampson

1987, 2011; Sampson and Groves 1989; Schreck, McGloin, and Kirk 2009). Therefore, youth

living in disadvantaged neighborhoods must take greater risks in order to date than youth living

in more affluent areas. Risk-averse youth living in these areas might miss out on the potential

benefits of risk orientation that their more affluent and risk-oriented peers receive.

This potential benefit is further complicated by social status. African Americans and Latinos are more often filtered into disadvantaged neighborhoods than their white peers (Charles 2003). Therefore, the benefits of social interaction, such as through dating, may be more accessible to whites simply because less risk is necessary to date where they live. Furthermore, whether youth in disadvantaged areas take the risks involved in dating may be conditioned by gender. For example, staying out late may take more risk orientation among females than males due to their heightened vulnerability to victimization (Cops and Pleysier 2011; Franklin and Franklin 2009; May, Rader, and Goodrum 2010). However, in the African American community, males are much more likely than females to be victims of violence (Fitzpatrick and Boldizar 1993). So perhaps among African Americans, males need to seek more risk than females in order to participate in social activities. These intersections of race and gender allude to the complex nature of mental health trajectories among young adults.

Negative Effects of Risk. Despite there being potential positive impacts of risk on youth outcomes, there are also instances where risk has negative effects. Risk-taking behaviors such as drinking alcohol, smoking, and using illicit drugs has consequences for mental health and well-being. According to national statistics, risk-taking youth are prone to accidents, injury, death, and psychological dysfunction. The leading cause of death among teens in the United States is motor vehicle accidents (Centers for Disease Control and Prevention 2012a). Indeed, youth ages 16 to 19 years are four times more likely to have a car accident than older drivers (Centers for Disease Control and Prevention 2012b). Fatal car accidents among this age group are often the result of speeding, drinking alcohol, and not wearing seatbelts – all risk-taking behaviors (Centers for Disease Control and Prevention. 2012a, 2012b). Data from 2008 show that of fatal

26

accidents among teenagers where drinking was involved, nearly 75 percent of those killed were not wearing seatbelts (Centers for Disease Control and Prevention 2010).

While these statistics pertain to youth as a whole, there are specific race and gender differences in these outcomes as well. For instance, males between the ages of 15 and 19 are twice as likely to die in a car accident as their female counterparts (Centers for Disease Control and Prevention 2012b). Furthermore, 37 percent of males ages 15 to 20 who died in car crashes had been speeding, and 26 percent of them had been drinking alcohol (Centers for Disease Control and Prevention 2010). Moreover, although young people have the lowest rate of seatbelt use compared to all other age groups, African Americans, Latinos, and males are even less likely to wear seatbelts than white youth and females, respectively (Centers for Disease Control and Prevention 2010). While it is clear in the literature that risk-taking behaviors vary by social status and significantly impact mental health and well-being, less is known about race/ethnic and gender differences in risk orientation and how risk orientation impacts youth. The main goal of this dissertation is to fill this gap in the literature.

Accidents and injuries are not the only negative consequences of risk orientation among youth. Drinking and other risk-taking behaviors are also associated with unintended pregnancies and the spread of sexually transmitted diseases (STDs), including Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS). African Americans are upwards of twenty times more likely to be infected with bacterial STDs (e.g., gonorrhea, syphilis, and chlamydia) than their white peers (Laumann and Youm 1999). Furthermore, STDs tend to linger in the African American community because African Americans are less socially mobile than other groups and therefore are more assortative (choosing partners who are African American) (Corcoran and Matsudaira 2005; Isaacs 2007; Kearney 2006; Laumann and Youm 1999;

Mazumder 2005). According to Laumann and Youm (1999), this fact alone explains why African Americans are 1.3 times more likely to have a sexually transmitted infection than their white counterparts.

STDs are not the only negative consequence of sexuality and risk orientation. Between 2004 and 2008, more than 70 percent of teen pregnancies that resulted in live births were unintended, and 50 percent of those pregnancies were the result of the couple not using any form of contraception (Centers for Disease Control and Prevention 2011). Though the rate of teen pregnancy has decreased over time, teen girls who get pregnant face negative consequences for future employment opportunities, marital relations, and economic and psychosocial well-being (Hamilton, Martin and Ventura 2011; Ventura and Hamilton 2011). Furthermore, despite declines in teen pregnancy among all racial/ethnic groups, large disparities in teen pregnancies across race/ethnicity still remain (Centers for Disease Control and Prevention 2011). In 2010, the rate of teen pregnancy among white females was 23.5 percent, which was significantly lower than the rates for non-Hispanic black females (51.5%) and Hispanic females (55.7%) (Centers for Disease Control and Prevention 2011). These statistics indicate that race as an institution impacts risk orientation. In turn, youth exhibit different patterns of mental health and substance use outcomes based on social status.

Half of all U.S. high school students have had sex, and inconsistent use of birth control (e.g., condom use) is common among young people (Centers for Disease Control and Prevention 2011). Among a sample of youth who had had sex in their current or most recent relationship, Manning et al. (2009) found that less than half of them used condoms consistently. Furthermore, the impact of relationship quality (e.g., negative qualities such as conflict or partner mistrust, and positive qualities such as passionate love or intimate self-disclosure) was negatively related to

consistent condom use, such that both positive and negative relationship qualities were associated with less consistent condom use (Manning et al. 2009). The negative association between relationship quality and condom use was similar for boys and girls, except in the case of relationship conflict, which increased the odds of consistent condom use for girls but not for boys (Manning et al. 2009). Sexual behaviors may also vary by socioeconomic status. Teen pregnancies are more common among youth with low income and education levels (Singh, Darroch, and Frost 2001). According to Singh and colleagues (2001), race/ethnicity also impacts teen pregnancy. Their study found that, due to their greater use of contraceptives, the likelihood of giving birth before age 20 was lower among white girls than among their racial and ethnic minority peers (Singh et al. 2001). Therefore, risk-taking behaviors and the consequences of these behaviors may vary by race/ethnicity and gender or in certain contexts.

Because there is reason to believe that 1) risk orientation has both positive and negative impacts on youth and 2) risk orientation varies by race/ethnicity and gender, it is important to explore more deeply the relationship between risk orientation and mental health and substance use. Although the developmental psychological explanations for increased risk in adolescence outlined above are worthy of attention, what is missing from these perspectives is any mention of how social status might play a role in risk orientation or risk-aversion. Given the discussion above on how social status impacts youth, it is highly likely that risk orientation will vary across groups. In turn, social status will impact the effects of risk orientation on mental health and substance use. In what follows, a more thorough description of how risk orientation might vary by social status is provided.

Risk Orientation and Social Status

On the one hand, social status is the prestige associated with one's position within the social hierarchy. Some social status is achieved (e.g., years of education), whereas other social statuses are ascribed from birth (e.g., race, gender) (Wray, Alwin, and McCammon 2005). Though they are distinct concepts, ascribed characteristics can impact achieved status (e.g., through discrimination and inequality). Social resources and opportunities needed for success are distributed unequally across social status lines, creating and maintaining a hierarchical structure where men are valued over women, whites are valued over racial and ethnic minorities, and members of the higher social classes are valued over members of the lower social classes. On the other hand, risk orientation is the propensity or predisposition to endorse or become involved in risk-taking behavior (Ehrlich and Maestas 2010), and risk-taking behavior is the actual engagement in behaviors that may pose a threat to physical or mental well-being. Race and gender are tied to both risk orientation and the opportunity for risk-taking behavior because of socialization processes. For example, racial groups have differential experiences in society. African American parents, in particular, spend extra time socializing their children to prepare them for the realities associated with being black in America (Brown and Brown 2006; Brown et al. 2007). Specifically, African American parents socialize their children to be aware that inequality exists and that they will likely be confronted with racial bias or discrimination at some point in their lives (Coard et al. 2004). Therefore, African Americans learn that their actions (e.g., heavy drinking) will be scrutinized more closely than the actions of their white peers.

Due to their differential experiences, racial and ethnic minorities take fewer risks than their white peers. Work on alcohol consumption, for instance, provides evidence that African American youth drink less alcohol than their white peers (Bachman et al. 1991; Siebert et al.

2003; Weaver et al. 2011; Wu et al. 2011). This pattern starts as early as middle school and high school and continues into the college years, where African American college students are more likely to abstain from drinking alcohol than whites (Bachman et al. 1991; Siebert et al. 2003; Weaver et al. 2011; Wu et al. 2011). However, less is known about social status differences in risk orientation. At first blush, one might conclude that if African Americans and other racial and ethnic minorities are less likely to engage in risk-taking behaviors that their risk orientation is simply lower than their white counterparts. However, it might be that racial and ethnic minorities have similar or higher levels of risk orientation than whites, and that the heightened social control of their behaviors is what leads to lower risk-taking behavior. In other words, social status may act to create behavior independent of risk orientation. Parsing out the race/ethnic patterns in risk orientation and how risk orientation impacts mental health and well-being is an important aim of this dissertation.

Again, social statuses often overlap and create unique experiences for individuals at different intersections of race and gender. Research on sexual behavior illuminates the effects of this intersection. Youth who have sex at a younger age and youth who have sex more frequently are at greater risk for unintended pregnancy and sexually transmitted diseases (Lauritsen 1994; Upchurch et al. 1998). In their study on gender and ethnic differences in age of initial sexual intercourse, Upchurch and her colleagues (1998) found that African American youth start having sex at a significantly younger age than their white, Hispanic, Asian American, and other racial/ethnic minority peers. Furthermore, while socioeconomic status contributes to significant race differences in first sex among females, African American males have sex at a significantly younger age than all other race-gender peers net of socioeconomic status and family structure

(Upchurch et al. 1998). Therefore, race and gender may also significantly interact to influence risk orientation in adolescence.

Risk orientation may also vary by socioeconomic status. Indeed, socioeconomic status can affect the opportunity for risk-taking thereby affecting the propensity to take risks. In some instances, lower socioeconomic status might give way to greater risk orientation because there may be less informal social control in neighborhoods where parents work two jobs (Bursik 1988; Morenoff, Sampson, and Raudenbush 2001; Sampson 1987, 2011; Sampson and Groves 1989; Schreck, McGloin, and Kirk 2009). Youth with lower socioeconomic status may therefore have more opportunities to drink alcohol, for example, because they may have less parental supervision. In other instances, higher socioeconomic status might be more conducive to risk-taking behavior, such as drinking alcohol, because those youth have more money to buy alcohol and are more likely to find a place to drink inside rather than on the streets where they are more likely to get caught (Chambliss 1973; Kupchik 2009).

Finally, gender socialization may account for gendered differences in risk orientation and risk-taking behaviors. Gender socialization among boys and men may inhibit males from expressing their feelings because of social pressures to be masculine, and instead they may choose to act out with such risk-taking behaviors as drinking alcohol (Feder, Levant, and Dean 2007). Gender socialization promotes risk-taking behavior in boys and starts at a young age. Such socialization takes place in every facet of American life, including schools and the media. In her content analysis of 33 popular videogames, Dietz (1998) found 1) that about 40 percent of the games with characters did not have any female characters, 2) that the objective of the majority of the videogames was to gain points through aggression or violence, and 3) that half of the games illustrated interpersonal violence, including violence against women. These types of

videogames clearly target young males and provide gendered socialization that promotes risk-taking behavior among boys.

Though media and other social institutions help to socialize youth, the family is the primary agent of gender socialization. Specifically, the family socializes girls to take fewer risks that might lead to injury on the one hand, and boys to take injury-prone risks on the other. In their 2004 study of mothers' reactions to risk-taking behaviors among sons and daughters, Morrongiello and Hogg found that mothers 1) assume boys will take more risks than girls, 2) are more careful to protect daughters than sons from injury, and 3) believe girls' risk-taking is more influential than boys (as in, "boys will be boys," but there is hope to control girls' risk-taking behavior). In other words, parents may exert more control over daughters than sons influencing girls to be more risk-averse than boys.

Because these beliefs are internalized in childhood, they often have lasting impacts on whether boys and girls actually partake in risk-taking behavior. Research on delinquent behavior supports this gendered socialization perspective for adolescent drug use. Svensson (2003) found that parents monitor their daughters' exposure to deviant peers more so than their sons' exposure to deviant peers. In turn, this gendered monitoring influences gender differences in drug use among adolescents.

Research on drunk driving also supports the idea that risk-taking behavior among women is less socially acceptable than among men, and that women may be at greater risk of punishment for risk-taking behavior than men. Schwartz (2008) examined data from three sources (arrest data from the FBI, self-report data, and traffic fatality data) and found that although women did not report significantly higher rates of drunk driving from 1982 to 2004, official arrest statistics showed that arrest rates for women increased significantly in the 1990s. These results suggest

33

that even when females take risks comparable to their male counterparts, socialization agents such as the legal institution try to control their behavior more so than the behavior of men.

Social Status, Mental Health, and Substance Use

As previously mentioned, social resources and opportunities for success are distributed unequally across social status lines. Personal resources also vary by social status. Studies show that males have higher self-esteem (i.e., an individual's global sense of self-worth) and personal sense of mastery (i.e., an individual's perception that s/he has control over personal outcomes) than females (Avison and McAlpine 1992; Bolognini et al. 1996). Furthermore, African Americans and Latinos have consistently been shown to have equal or higher self-esteem than whites despite the fact that they are exposed to more economic and social discrimination (Bowler et al. 1986; Demo and Hughes 1990; Hughes and Demo 1989; Jensen et al. 1982; Martinez and Dukes 1991; Ockerman 1979; Phinney, Cantu, and Kurtz 1997; Porter and Washington 1979).

Social status differences in the personal sense of mastery among racial and ethnic groups are a little more complicated. Lewis, Ross, and Mirowsky (1999) found that African Americans had higher mastery than whites, but that levels of mastery were equal among whites and Latinos. By dividing the sample by gender, a more complete picture of social status variations in mastery could be assessed. Among females, African Americans and Latinos had higher mastery than whites (Lewis et al. 1999). Conversely, while African American males had higher mastery than white males, Latino and white males had similar levels of mastery (Lewis et al. 1999). Self-esteem and mastery have repeatedly been shown to relate to mental health and substance use outcomes (Pearlin et al. 1981; Pearlin 1999a, 1999b). Therefore, in studying the processes linking risk orientation to mental health and substance use outcomes across social status,

34

mechanisms such as self-esteem and mastery are of great importance. In the rest of this section, I highlight other aspects that link race/ethnicity and gender to differences in mental health and substance use patterns.

Race and Ethnicity. Race and ethnicity are socially constructed concepts, meaning that the definitions of race and ethnic categories change over time depending on the prevailing political and cultural terrain of a given society. Sociologists have struggled with defining, conceptualizing, and measuring race and ethnicity because of their fluid nature. Furthermore, many scholars use the terms race and ethnicity interchangeably because of their blurred boundaries. According to Howard Winant, race is "*a concept that signifies and symbolizes sociopolitical conflicts and interests in reference to different types of human bodies*" (2000: 172, emphasis in original). There is no genetic marker that maps onto racial categories as they are socially defined (Winant 2000). Instead, it is typical to categorize people into racial groups based on biological characteristics (e.g., skin and eye color, hair texture), which are arbitrary and a rather inaccurate way to distinguish social groups (Winant 2000; see also Omi and Winant 1994). According to Winant (2000), dividing people into racial categories based on physical traits was a phenomenon that transpired at the same time the world political economy was emerging to justify the colonization and domination of a group. Ancient Greek societies used individuals' morals and ethics to divide them into dominant and subordinate groups (Hirschman 2004), but with the rise of the world political economy, the concept of race was used to distinguish between dominant (white) and subordinate (non-white) groups (Winant 2000).

The fluid nature of the concept and measurement of race can be seen by examining racial categories over time in the U.S. Census, which illustrates how the number of racial categories and their labels has changed as a result of significant political movements. For example, while

pre-1990 census surveys included several categories for persons with varying levels of African

parentage (e.g., black, mulatto, quadroon, and octoroon), the 1990 U.S. Census dropped the

mulatto, quadroon, and octoroon categories, reflecting the implementation of the "One Drop

Rule" (e.g., one drop of African blood is enough to categorize a person as black) (Lee 1993).

Rather than there being different degrees of value across African parentage (e.g., that "whiter"

blacks had greater value), all groups with African parentage were distinguished from whites to

prioritize whiteness in the purest form (Lee 1993). This change is a clear reflection of how the

dominant ideology of society at any given time influences how people are grouped into racial

categories, and thus whether they are part of the dominant group or the subordinate groups.

Racial and ethnic categories have also been influenced the cultural values of the

dominant group. While some groups have historically been afforded the choice to select a racial

category (e.g., Puerto Ricans and other Latino groups can choose between white, black, or other

race), other groups have been forced into one category (Hardesty 2001; Lee 1993). For instance,

Italians have historically been categorized as white while African Americans, despite their ethnic

background, have been categorized as African American or black (Hardesty 2001; Lee 1993).

Despite the fact that these concepts are a socially constructed, the consequences of racial

and ethnic categorization are real. The distribution of power and resources is spread unequally

across racial and ethnic lines. In fact, racial/ethnic inequality and its consequences are rooted in

American history. Dating back to slavery in the United States, racial and ethnic minorities and

African Americans, in particular, have been spatially segregated and disproportionately filtered

into poorer neighborhoods where there is less access to valued social resources (e.g., jobs)

(Charles 2003; Christie-Mizell, Steelman, and Stewart 2003; Eamon and Mulder 2005; Keith and

Herring 1991; Williams and Collins 2001). According to Williams and Collins (2001), racial

segregation is a form of institutional racism that helps maintain white power by discouraging racial integration between whites and blacks. In times of slavery, the majority of African slaves lived in shacks separate from the living quarters of their white masters (Keith and Herring 1991). One exception to such segregation was that black children who had white fathers as a result of the exploitation and rape of African slave women were used as house slaves rather than field slaves and were more integrated with whites, granting them certain privileges (e.g., being taught to read and write) over their "purely" African counterparts (Keith and Herring 1991). Latinos have also historically been filtered into disadvantaged communities and have poverty levels approaching that of their African American peers (Eamon and Mulder 2005).

Not only are there racial and ethnic differences in the patterns leading to disparities in well-being (Eamon and Mulder 2005; Levin, Van Laar, and Foote 2006; Pasco and Richman 2009; Williams and Collins 2001), but there are also differences in the coping strategies used to handle the lived experience of racial and ethnic minorities. In their 2010 analysis of the Americans' Changing Lives Survey, Jackson, Knight, and Rafferty found that African Americans, but not whites, successfully used risk-taking behaviors (e.g., smoking cigarettes, drinking alcohol) to buffer the negative impacts of social stressors on depressive symptomatology. Specifically, though an increase in stressors (e.g., involuntary job loss) significantly increased the likelihood of depression for blacks and whites, coping by way of unhealthy behaviors lessened this effect for African Americans but not for whites (Jackson et al. 2010). Whites may have access to other resources that do not have the same deteriorating effect on well-being as risk-taking behaviors, but these behaviors are a readily available resource in African American communities to avoid mental health problems.

Race and ethnicity are also inseparably linked to space (e.g., neighborhood) and socioeconomic status. Research on the impact of neighborhoods on mental health and substance use has demonstrated that objective measures of socioeconomic status are too narrow. Christie-Mizell and his colleagues (2003) found that objective and subjective measures of neighborhood condition had independent effects on maternal distress. In other words, controlling for objective measures of neighborhood SES, mothers' perceptions of neighborhood disorder had significant negative impacts on psychosocial well-being (Christie-Mizell et al. 2003). Similarly, Wen, Hawkley, and Cacioppo (2006) found that the significant association between objective neighborhood SES (e.g., poverty level) and well-being is explained by perceived neighborhood conditions. They also found that individual SES (e.g., income, education) impacted the relationship between neighborhood SES and psychosocial well-being (Wen et al. 2006). Therefore, socioeconomic status is a complex concept consisting of objective and subjective positions within the social context.

Gender. Just as there are race and socioeconomic inequalities in well-being, social outcomes are also differentially distributed across gender. Recent scholars have noted that men and women may suffer from unique mental illnesses or psychological problems. Examining a plethora of mental health outcomes, scholars have found that men are more likely to exhibit antisocial disorders and alcohol abuse and dependence, whereas women are more likely to have depressive and anxiety disorders (Christie-Mizell and Peralta 2009; Burnam et al. 1987; Karno et al. 1987; Myers et al. 1984; Robins et al. 1984; Simon 2002; see also Aneshensel et al. 1991).

Because of such gender patterns, it is important that scholars continue to study a wide array of outcomes of psychosocial well-being. In their 1991 study, Aneshensel, Rutter, and Lachenbruch argue convincingly that limiting studies of mental health to one outcome measure

has the potential to draw erroneous conclusions about the impact of social status on mental health and psychosocial well-being. Researchers make erroneous assumptions about mental health processes when only using one indicator of psychosocial well-being because if, for example, respondents have few depressive symptoms, they are assumed to be "well" or "healthy" (Aneshensel et al. 1991). However, men who have few depressive symptoms may not exactly be mentally or psychologically healthy because they might be drinking heavily instead. Aneshensel and her colleagues (1991) argue on behalf of studying multiple dimensions of well-being within one study in order to better understand how social status impacts overall psychosocial well-being. More recent scholarship has answered Aneshensel et al.'s (1991) critique and scholars have examined multiple outcomes of mental health and psychosocial well-being across race and gender lines (Breslau et al. 2006; Kertzner et al. 2009; Longest and Thoits 2012; Newsom et al. 2008).

Intersectionality approach. It is problematic to assume that social statuses are mutually exclusive categories and have simplex relationships with mental health and well-being. Rather the experience of gender depends on where one falls within the racial hierarchy just as the experience of race and ethnicity is likely different for men and women. Research demonstrates that women are more likely than their male counterparts to experience depression and depressive symptoms (Kessler et al. 1993; Nolen-Hoeksema 1990; Nolen-Hoeksema, Larson, and Grayson 1999; Roberts and Sobhan 1992). Scholars have also found that African Americans have fewer symptoms of depression than their white peers (Roberts and Sobhan 1992). What is less clear is what happens at the intersection of race and gender. Whereas a prominent gender gap in internalizing problems (e.g., depressive symptoms) exists among whites, the gap for African Americans is much smaller because the rates of internalizing problems are relatively low among

39

African American women (Breslau et al. 2005; McGuire and Miranda 2008; Rosenfield and Mouzon 2013; Rosenfield, Philips, and White 2006; Schwartz and Meyer 2010). A different story emerges when examining externalizing problems (e.g., substance use). Studies show that the gender gap in externalizing problems is pronounced in white communities as well as in African American communities (Adrian 2002; Rosenfield et al. 2006; Rosenfield and Mouzon 2013; Vega et al. 1993; Warheit et al. 1996; Warner et al. 1995). The intersectionality framework helps to explain how the processes leading to differences in mental health trajectories across social status groups are very complex.

Research also suggests that increased socioeconomic status positively affects mental health and well-being (Link and Phelan 1995; Link et al. 2008; Phelan et al. 2004), but some racial/ethnic groups might benefit more from socioeconomic status than others. Similarly, the associations among risk orientation, social status, and mental health outcomes might be different in affluent communities than in disadvantaged communities. The effects of socioeconomic status on well-being are hard to distinguish because race and SES are often confounded. Simply put, the lines to distinguish how race and SES are conceptualized and measured are blurred. Therefore, this obfuscation makes it difficult to determine the independent effects of race and SES on social phenomena, including mental health and substance use trajectories. Race is socially constructed and social resources are allocated within a racist structure whereby they are distributed unequally across racial lines. SES often overlaps with race such that the middle and upper strata of socioeconomic status are disproportionately made up of whites, and the lower strata are disproportionately comprised of racial and ethnic minorities.

Despite the confounding of race and SES, some scholars have worked diligently to test their independent (and interactive) effects on mental health outcomes. In their analysis of 899

40

African American and white men and women, Turner and Avison (2003) found independent effects of race and socioeconomic status on mental health. In this study, increased socioeconomic status was related to significantly fewer depressive symptoms net of race, and African Americans experienced significantly more depressive symptoms than their white counterparts, controlling for socioeconomic status (Turner and Avison 2003).

Race and SES have also been found to have interaction or multiplicative effects on well-being, although findings vary depending on the outcome of interest. Some scholars have found that the effect of low SES on psychosocial well-being is especially damaging for African Americans (Kessler and Neighbors 1986; Ulbrich, Warheit, and Zimmerman 1989; see also Bratter and Eschbach 2005), while others have found that racial disparities in psychosocial well-being are more pronounced as socioeconomic status increases (Cockerham 1990; see also Bratter and Eschbach 2005). For example, Kessler and Neighbors (1986) conducted analyses with interaction terms to show that race differences in psychological distress are magnified by socioeconomic status such that racial disparities in psychosocial well-being are more exaggerated among people with lower socioeconomic status. Therefore, while race and SES have independent effects on some indicators of psychosocial well-being, there are significant interaction effects between race and socioeconomic status for other indicators.

Understanding how social statuses interact to affect mental health processes is important because ignoring the relevance of these interactions neglects serious implications for the mental health and well-being of marginalized groups. Further, as stated by Warner and Brown (2011), neglecting the importance of the intersectionality approach in mental health research thwarts efforts to eradicate health disparities. Research must do better to uncover some of the unique processes of mental health experienced by individuals at the intersections of devalued statuses.

In addition to taking the intersectionality approach into consideration, a life course perspective also guides this research. Mental health and well-being must arguably be studied longitudinally. Rather than being non-existent at one time or in one setting and existent in the next, the precursors and underlying mechanisms of mental health and well-being outcomes point to the fact that these are complex processes that take time and context to develop. Therefore, the life course perspective offers a compelling complementary framework with which to study mental health and substance use outcomes.

As George (2007) points out, a plethora of work from mental health scholars has focused on the social causation-selection debate. That is, mental health researchers often have the goal of establishing the social causes and consequences of mental illness (Johnson 1991; Ross and Mirowsky 1995; Turner and Lloyd 1999; Turner, Wheaton, and Lloyd 1995). For instance, one question stemming from this debate might be *Does socioeconomic status lead to poor mental health outcomes (social causation), or are those with mental illness selected into lower socioeconomic positions because of the limits of their disease (social selection)?* Life course scholars diverge from this approach of causation versus selection in that they have traditionally been more concerned with the reciprocal and processual nature of mental health. In other words, the life course approach to studying mental health would focus on contributions to mental health across the life course and establishing the temporal ordering of, and possibly the mutual causation between, social factors and mental health outcomes (George 2007). Thus testing reciprocal relationships and cross-lagged effects is commonplace for life course scholars (George 2007). Furthermore, controlling for important childhood and adolescent factors in models predicting mental health and substance use outcomes in young adulthood would tell a more complete story. For instance, taking socioeconomic status and behavioral tendencies in

childhood and adolescence into consideration in young adult outcomes will help illuminate whether some of the process stems from childhood/adolescence.

Innovations and Expansions

This dissertation fills some important gaps for our understanding of how increased risk in adolescence impacts mental health and well-being across social status groups. Specifically, there are two multi-layered contributions to the literature that this dissertation makes. First, I include a measure of risk orientation in addition to indicators of risk-taking behaviors to explore the effects of risk on mental health and substance use. As previously mentioned, there may be significant differences between youth who are risk-takers or risk-averse and those who have a high or low risk orientation. By testing only the effects of risk-taking behaviors on psychosocial well-being, the literature has failed to capture the potentially complex relationship between risk and well-being. Because I am using longitudinal data and estimating a variety of quantitative models that establish temporal ordering, I am further able to explore how this process in young adulthood 1) is affected by behaviors and background characteristics from childhood and adolescence, and 2) varies by social status, including race/ethnicity and gender.

Second, I test whether social status moderates the relationship between risk and well-being. Given the discussion above, it is highly likely that youth of different backgrounds will experience varying trajectories of mental health processes. I am further able to test these moderation hypotheses taking the young adult's life course into consideration. Therefore, I am able to draw conclusions both about how social status impacts the relationship between risk and well-being for youth, and if factors from childhood and adolescence impact this relationship more critically for some groups than for others. These are important contributions to the

literature on risk and well-being among youth as they take into careful consideration social placement within the hierarchical structure of society in the relationship between risk and well-being.

Summary and Hypotheses

In this dissertation, I argue that social status is linked to both risk orientation and mental health and substance use outcomes. Social status is central in terms of race and gender groups in examining the association between risk orientation and depressive symptoms and alcohol consumption. Based on my review of the literature, the following 14 hypotheses are tested. I briefly discuss the hypotheses below in relation to the review presented in this chapter.

One goal of this research is to establish whether youth age out of risk orientation like they do risk-taking behaviors (Hirschi and Gottfredson 1983; Massoglia and Uggen 2010). Therefore, the first hypothesis states

H1: Age will have a curvilinear association with risk orientation, such that initial increases in age will have a positive association with risk orientation, but further increases in age will have a negative association with risk orientation.

Support of Hypothesis 1 would indicate that risk orientation is similar to risk-taking behaviors in that it peaks in adolescence and young adulthood and then levels off as youth get older. A second goal of this research is to explore whether social status has independent effects on the development of risk orientation. The following research hypotheses are tested:

H2: African Americans will have lower risk orientation compared to whites.

H3: Latinos will have lower risk orientation compared to whites.

H4: Males will have higher risk orientation compared to females.

44

If these hypotheses are supported, I can conclude that marginalized social status lowers risk orientation among youth. Alternatively, if the null hypotheses are supported, it might be that youth of marginalized social status are more comfortable with risk-taking regardless of their actual risk-taking behavior.

A third goal of this research is to test the challenge model hypothesis of Hollister-Wagner et al.'s (2001) risk and resilience framework. The challenge model is tested in relation to all three major outcomes. The following research hypotheses are tested:

H5: Risk orientation will have a curvilinear relationship with depressive symptoms such that initial increases in risk orientation will decrease depressive symptoms, but further increases in risk orientation will increase depressive symptoms.

H6: Risk orientation will have a curvilinear relationship with the number of drinks consumed per occasion such that initial increases in risk orientation will decrease the number of drinks consumed, but further increases in risk orientation will increase the number of drinks consumed.

H7: Risk orientation will have a curvilinear relationship with the frequency of drinking such that initial increases in risk orientation will decrease frequency of drinking, but further increases in risk orientation will increase frequency of drinking.

As reflected in the hypotheses above, it is possible that the challenge model will be supported for all three outcomes, but it may also only apply to one or two of the outcomes. Where the challenge model is supported, I can conclude that some risk orientation is good for the well-being of youth—a finding not typically shown when studying the effects of risk-taking behaviors on well-being. Alternatively, if a null or a linear association is supported, it may be that the

same mechanisms operating to link risk-taking behaviors negatively to well-being also impact the effects of risk orientation on well-being.

A fourth goal of this dissertation is to assess whether risk orientation and well-being simultaneously affect one another. According to the life course perspective, mental health and well-being should be thought of as ongoing processes and not as though they occur in a vacuum in young adulthood. Not only is this life course approach tested with non-recursive models, but I also take seriously the life course approach by controlling for child and adolescent factors that may shape well-being in young adulthood. The following hypotheses reflect my expectations for reciprocal relationships between risk orientation and well-being:

H8: Risk orientation and depressive symptoms will have reciprocal effects such that risk orientation and depressive symptoms mutually and positively impact each other.

H9: Risk orientation and the number of drinks consumed per occasion will have reciprocal effects such that risk orientation and number of drinks consumed will mutually and positively impact each other.

H10: Risk orientation and the frequency of drinking will have reciprocal effects such that risk orientation and frequency of drinking mutually and positively impact each other.

Although the main goal of this research is to focus on the independent effects of risk orientation on well-being, I also have some expectations based on my review of the literature about the relationship between risk-taking behaviors and well-being. The hypotheses that reflect these expectations are as follows:

H11a-c: Heavy drinking will significantly increase a) depressive symptoms, b) the number of drinks consumed per occasion, and c) the frequency of drinking.

H12a-c: Illicit drug use will significantly increase a) depressive symptoms, b) the number of drinks consumed per occasion, and c) the frequency of drinking.

H13a-c: Early sexual initiation will significantly increase a) depressive symptoms, b) the number of drinks consumed per occasion, and c) the frequency of drinking.

H14a-c: Cigarette use will significantly increase a) depressive symptoms, b) the number of drinks consumed per occasion, and c) the frequency of drinking.

Finally, beyond the general, main effects predictions for risk orientation in hypotheses 1-3, I do not outline specific expectations for the role of social status in the other relationships described above. For example, the theoretical framework described in this chapter suggests that race and/or gender may complicate the relationship between risk orientation and well-being or in how risky behaviors shape outcomes. Unmeasured aspects of the lived race/ethnic or gender experience may be uncovered by exploring the same models across social status groups. It might be that some youth age into risk orientation while others age out of risk orientation between the ages of 15 and 28. Social status might also affect how risk orientation is shaped by other background characteristics. For instance, childhood/adolescent factors might matter more for one group while psychosocial resources might matter more for another group in the shaping of risk orientation. Moreover, how risk orientation relates to well-being may vary across social

status. It is possible that the relationship between risk orientation and well-being is reciprocal for some social status groups but unidirectional for others. In order to clarify these processes across groups, additional analyses are conducted to examine the impact of social status above and beyond child and adolescent factors, risk-taking behaviors, and even risk orientation on mental health and substance use in young adulthood.

CHAPTER III

DATA AND METHODS

In this chapter, I describe the data source, study variables, sample, and statistical

techniques used in this dissertation. My goal is to explore the relationships among risk

orientation, risk-taking behaviors, social status, and mental health and alcohol consumption

among young adults. First, I will provide an overview of the National Longitudinal Survey of

Youth (NLSY79), the National Longitudinal Survey of Youth- Child Sample (NLSY-C), and the

National Longitudinal Survey of Youth- Young Adult Sample (NLSY-YA) – the data sources for

this project. Second, I will describe the variables analyzed in the dissertation, including how the

variables are coded. In this section, I describe the sample based on the characteristics included in

the analyses. Finally, I will discuss the analytic strategy used in the dissertation.

Data and Sample

The data I analyze in this dissertation come from the NLSY79, the NLSY-C, and the

NLSY-YA. These data sources are part of a larger study (the National Longitudinal Surveys

[NLS]) conducted by the U.S. Departments of Labor and Defense. The NLS surveys were

carried out under a grant to the Center for Human Resource Research at The Ohio State

University (Center for Human Resource Research, 2002). The initial data collection in 1979

oversampled African American, Latino, and economically disadvantaged white youth and

compiled data pertaining to the labor market experience, family life, social and cognitive

functioning, and demographic characteristics of study participants. Interviews took place

annually until 1994 and biennially thereafter. Respondents ranged in age from 14 to 22 years at the initial interview.

In 1986, the children of mothers from the NLSY79 were interviewed for the first time, and have continued to be interviewed biennially since then. These children make up the NLSY-C and these data contain information on the cognitive ability, temperament and behavioral problems, social development, self-competence, and quality of the home environment of the children of NLSY79 mothers. Further, the data collected for the children include information about the child's schooling, family, social attitudes, and mental health. Starting in 1994, when children in the NLSY-C reach age 15, they become part of the NLSY-YA. Youth in this young adult sample are then administered questions that parallel those given to their mothers, but also included information germane to young people transitioning into adulthood (e.g., dating histories, employment expectations, and family planning preferences). Because the children (NLSY-C) and young adults (NLSY-YA) share unique identification codes with their mothers, it is possible to link and analyze mother-child and mother-young adult data.

Much of the data I analyze come from the 2004 and 2008 waves of NLSY-YA. I also control for childhood and adolescent measures using the 1986, 1990, and 1996 waves of the NLSY-C data. Some variables are also constructed using the mother's data from the NLSY79. The total sample size is 1,483 young adults. There are 469 African Americans, 343 Latinos, and 671 whites in the study, ranging in age from 15 to 28 in 2004. About half the sample ($n= 741$) is male and half ($n= 742$) is female. I will describe the sample in more detail as I outline the analytic variables below. All values below are weighted for representativeness, correcting for the oversampling of racial minorities and disadvantaged white youth.

Dependent Variables

　　Before I describe my main dependent variables, I need to point out that after the description of each outcome and before moving on to the next one, I provide some statistics for the baseline measure of the outcome. These baseline assessments are parallel measures of the outcomes and are used as stabilities—or unique predictors—in models estimating reciprocal effects. Each outcome in a non-recursive model needs at least one unique predictor in order to have enough degrees of freedom to estimate properly. All of the dependent variables are measured in 2008, while their parallel measures come from the 2004 wave of the data.

　　The first outcome of interest is *risk orientation*. This measure is a scaled variable with 6 items, each ranging from 1 (strongly disagree) to 4 (strongly agree). Respondents were asked the degree to which they agree with the following statements: 1) "I often get in a jam because I do things without thinking," 2) "I think that planning takes the fun out of things," 3) "I have to use a lot of self-control to keep out of trouble," 4) "I enjoy taking risks," 5) "I enjoy new and exciting experiences, even if they are a little frightening or unusual," and 6) "Life with no danger in it would be too dull for me." This measure is scaled high so that it ranges from lower risk orientation (6) to higher risk orientation (24). It is a reasonably reliable measure for the pooled sample ($\alpha= .65$), as well as for the different race/ethnic groups ($\alpha= .63$ for African Americans, $\alpha= .67$ for Latinos and whites) and for males ($\alpha= .61$) and females ($\alpha= .65$). These Chronbach's alphas are comparable to a similar measure of risk-taking attitudes ($\alpha= .63$) analyzed by Kowaleski-Jones (2000). On average, youth score 14.58 on this measure ($SD=2.59$). African Americans ($\bar{x} = 14.02$, $SD= 2.76$) have lower risk orientation than Latinos ($\bar{x} = 14.46$, $SD= 2.64$; $t= 2.37$, $p<.05$) and whites ($\bar{x} = 14.71$, $SD= 2.39$; $t= 4.50$, $p<.001$), but whites and Latinos do not significantly differ ($t= 1.52$, $p>.05$). Males ($\bar{x} = 15.17$, $SD= 2.51$) have significantly higher risk

orientation compared to females ($\bar{x} = 13.96$, $SD= 2.50$; $t= 9.90$, $p<.001$). See Table 1 for all descriptive statistics.

The parallel measure of risk orientation is assessed in 2004. On average, youth score 15.08 on the risk orientation measure in 2004 ($SD= 2.58$). While males ($\bar{x} = 15.54$, $SD= 2.53$) have higher risk orientation than females ($\bar{x} = 14.60$, $SD= 2.52$; $t= 7.33$, $p<.001$), and whites ($\bar{x} = 15.25$, $SD= 2.48$; $t= 6.37$, $p<.001$) and Latinos ($\bar{x} = 15.08$, $SD= 2.42$; $t= 4.66$, $p<.001$) have higher risk orientation than African Americans ($\bar{x} = 14.26$, $SD= 2.69$), there is no significant difference between whites and Latinos ($t= 1.04$, $p>.05$). While risk orientation is an important outcome for this study, I refer to the next three dependent variables as the main outcomes of interest as they are the mental health and alcohol use outcomes I examine.

The second dependent variable of interest aims to capture an indicator of the respondent's mental health. Respondents ages 15 and over are administered a 7-item version of the well-known and valid Center for Epidemiologic Studies-Depression (CES-D) scale of *depressive symptoms* (Radloff 1977). The questions asked whether respondents 1) did not feel like eating, 2) had trouble keeping their mind on things, 3) felt everything was an effort, 4) had restless sleep, 5) felt sad, 6) couldn't get going, and 7) felt depressed. Each item ranges from 0 (rarely/none of the time/1 day) to 3 (most/all of the time/5-7 days). The scale ranges from 0 (lower depressive symptoms) to 21 (higher depressive symptoms). The scale is reliable ($\alpha= .70$), and stable across race and ethnic categories ($\alpha= .70$ for all three groups) as well as gender ($\alpha= .69$ for males and $\alpha= .70$ for females). The average score is 4.50 ($SD= 3.59$). African Americans ($\bar{x} = 5.03$, $SD= 3.71$) score higher on the depressive symptoms measure than Latinos ($\bar{x} = 4.20$, $SD= 3.49$; $t= 3.33$, $p<.001$) and whites ($\bar{x} = 4.43$, $SD= 3.54$; $t= 2.78$, $p<.01$), but the latter two

Table 1: Weighted Means and Percents for All Study Variables across Race/Ethnicity and Gender.
National Longitudinal Survey of Youth (1979-2008).

	Pooled Sample N= 1,483		African Americans N= 469		Latinos N= 343		Whites N= 671		Males N= 741		Females N= 742	
	Mean	*SD*	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*
Outcomes and Stabilities												
Depressive Symptoms (T2)	4.50	3.59 [ABD]	5.03	3.71	4.20	3.49	4.43	3.54	4.22	3.41	4.81	3.72
Depressive Symptoms (T1)	4.52	3.78 [BD]	5.00	3.94	4.49	3.87	4.43	3.60	4.24	3.44	4.82	4.06
Risk Orientation (T2)	14.58	2.59 [ABD]	14.02	2.76	14.46	2.64	14.71	2.39	15.17	2.51	13.96	2.50
Risk Orientation (T1)	15.08	2.58 [ABD]	14.26	2.69	15.08	2.42	15.25	2.48	15.54	2.53	14.60	2.52
Alcohol Quantity (T2)	3.73	3.80 [ABD]	2.78	3.16	3.81	4.93	3.91	3.46	4.35	4.26	3.07	3.17
Alcohol Quantity (T1)	3.43	3.24 [ABD]	2.28	2.14	3.85	3.44	3.62	3.61	3.91	3.57	2.93	2.77
Alcohol Frequency (T2)	4.82	1.80 [CD]	4.71	1.88	4.58	1.74	4.86	1.77	5.09	1.72	4.52	1.83
Alcohol Frequency (T1)	3.70	1.93 [BCD]	3.89	1.99	4.00	1.81	3.63	1.94	3.85	1.91	3.55	1.94
Social Status												
African American (1=Yes)	15.50 %	-----	-----	----	-----	-----	-----	-----	30.12 %	-----	33.73 %	-----
Latino (1=Yes)	8.01 %	-----	-----	----	-----	-----	-----	-----	25.36 %	-----	21.20 %	-----
White (1=Yes)	76.49 %	-----	-----	----	-----	-----	-----	-----	44.52 %	-----	45.07 %	-----
Male (1=Yes)	51.46 %	---- [A]	47.40 %	----	54.70 %	-----	49.78 %	-----	-----	-----	---	-----
Child and Adolescent Controls												
Behavior Problems Index (BPI)	59.76	24.44 [AB]	64.74	21.80	60.88	24.62	58.64	25.83	60.77	24.55	58.69	24.12
HOME Scale	55.72	24.84 [ABC]	36.49	23.26	44.75	23.75	60.77	20.97	55.15	25.52	56.33	24.11
Mother's Educational Attainment	12.70	2.15 [ABC]	12.36	1.75	11.58	2.75	12.89	1.89	12.68	2.20	12.72	2.09
Lived in Poverty (1=Yes)	28.50 %	---- [ABC]	57.59 %	----	47.58 %	-----	21.52 %	-----	39.23 %	-----	38.67 %	-----
Lived in the Central City (1=Yes)	16.46 %	---- [ABC]	34.30 %	----	27.64 %	-----	10.40 %	-----	22.72 %	-----	21.20 %	-----
Sociodemographics												
Age	19.64	3.23 [ABC]	21.57	3.38	20.23	3.30	19.18	2.66	19.66	3.31	19.61	3.15
Household Income (in $1,000s)	65.12	60.30 [ABC]	36.77	42.22	52.59	63.12	72.18	65.60	67.30	62.95	62.82	57.50
Educational Attainment	11.31	1.95 [AB]	11.71	1.73	11.17	1.94	11.24	2.06	11.23	1.93	11.39	1.96
Lives in the Central City (1=Yes)	23.32 %	---- [ABC]	50.52 %	----	36.18 %	-----	16.98 %	-----	30.91 %	-----	32.80 %	-----
Perceived Neighborhood Disorder	10.61	3.36 [ABC]	12.48	4.10	10.72	3.03	10.22	2.54	10.54	3.42	10.68	3.30
Psychosocial Resources												
Self-Esteem	32.31	4.11 [B]	33.00	4.37	32.43	4.08	32.16	3.91	32.42	4.02	32.19	4.20
Personal Sense of Mastery	22.13	2.98 [B]	22.43	3.07	22.24	3.22	22.05	2.77	22.01	3.00	22.25	2.94
Risk-Taking Behaviors												
Prior Heavy Drinker (1=Yes)	31.87 %	---- [AB]	13.10 %	----	34.19 %	-----	34.99 %	-----	29.59 %	-----	25.73 %	-----
Early Sexual Initiation (1=Yes)	18.25 %	---- [BCD]	25.36 %	----	19.66 %	-----	12.44 %	-----	21.93 %	-----	14.53 %	-----
Ever Smoked Cigarettes (1=Yes)	61.18 %	-----	56.76 %	----	62.11 %	-----	62.52 %	-----	62.62 %	-----	58.40 %	-----
Ever Used Illicit Drugs (1=Yes)	48.11 %	---- [ACD]	49.69 %	----	57.83 %	-----	46.12 %	-----	55.88 %	-----	44.13 %	-----

Notes:

[A] Significant mean difference between African Americans and Latinos.

[B] Significant mean difference between African Americans and whites.

[C] Significant mean difference between Latinos and whites.

[D] Significant mean difference between males and females.

groups have similar levels of depressive symptoms ($t= .98$, $p>.05$). Females in the sample report significantly higher depressive symptoms ($\bar{x} = 4.81$, $SD= 3.72$) than males ($\bar{x} = 4.22$, $SD= 3.41$; $t= 3.19$, $p<.01$).

The parallel version of depressive symptoms is measured in 2004. The average depressive symptoms score in 2004 is 4.52 ($SD= 3.78$). African Americans ($\bar{x} = 5.00$, $SD= 3.94$) score higher on the depressive symptoms measure than their white peers ($\bar{x} = 4.39$, $SD= 3.58$; $t= 3.33$, $p<.001$), but are not significantly different from Latinos ($\bar{x} = 4.49$, $SD= 3.87$; $t= 1.88$, $p>.05$). Latino and white youth also do not differ on depressive symptoms in 2004 ($t= .26$, $p>.05$). Similar to the 2008 measure of depressive symptoms, males ($\bar{x} = 4.24$, $SD= 3.44$) score lower on the depressive symptoms measure than females ($\bar{x} = 4.82$, $SD= 4.06$; $t= 3.05$, $p<.01$).

The third and fourth outcomes I assess in the dissertation relate to alcohol consumption. The first alcohol measure, *quantity of alcohol consumption*, is measured with the survey item, "During the past 30 days, on the days that you drank, about how many drinks did you usually have in a day?" I will also refer to this outcome as *number of drinks per occasion* throughout the dissertation. Youth who consumed alcohol in the last year answered this survey question. If they did not drink in the last 30 days, respondents are coded as 0 for the quantity of alcohol consumption measure. On average, respondents drink a little less than four drinks per occasion ($\bar{x} = 3.73$, $SD= 3.8)0$. Whites ($\bar{x} = 3.91$, $SD= 3.46$; $t= 5.79$, $p<.001$) and Latinos ($\bar{x} = 3.81$, $SD= 4.93$; $t= 3.77$, $p<.001$) drink more on average than African Americans ($\bar{x} = 2.78$, $SD= 3.16$), but have similar levels of alcohol consumption to one another ($t= .39$, $p>.05$). Additionally, males ($\bar{x} = 4.35$, $SD= 4.26$) drink significantly more per occasion than females ($\bar{x} = 3.07$, $SD= 3.17$; $t= 7.13$, $p<.001$). The parallel measure of *quantity of alcohol consumption* has the same race/ethnicity and gender patterns. The average number of drinks consumed in 2004 is 3.43

(*SD*= 3.24). Males ($\bar{x}$ = 3.91, *SD*= 3.57) drink more per occasion than females ($\bar{x}$ = 2.93, *SD*=

2.77; *t*= 5.61, *p*<.001), and African Americans ($\bar{x}$ = 2.28, *SD*= 2.14) drink fewer drinks than

both Latinos ($\bar{x}$ = 3.85, *SD*= 3.44; *t*= 7.59, *p*<.001) and whites ($\bar{x}$ = 3.62, *SD*= 3.61; *t*= 7.91,

p<.001). The number of drinks per occasion in 2004 does not differ between whites and Latinos

(*t*= 1.00, *p*>.05).

The second alcohol use outcome, the *frequency of drinking*, is measured by the survey

item, "On the average, how often in the last 12 months have you had any alcoholic beverage, that

is, beer, wine, or liquor?" Responses are coded 1) 1 to 2 days in the past 12 months, 2) 3 to 5

days in the past 12 months, 3) every other month or so (6 to 11 days a year), 4) 1 to 2 times a

month (12 to 24 days a year), 5) several times a month (25 to 51 days a year), 6) about 1 or 2

days a week, 7) almost daily or 3 to 6 days a week, and 8) daily. Therefore, the variable ranges

from 1 to 8, and on average, youth fall in the middle of this range ($\bar{x}$ =4.82, *SD*= 1.80). Whites

drink more frequently ($\bar{x}$ = 4.86, *SD*= 1.77) than Latinos ($\bar{x}$ = 4.58, *SD*= 1.74; *t*= 2.42, *p*<.05),

but African Americans ($\bar{x}$ = 4.71, *SD*= 1.88) drink as frequently as both of these groups (*t*= 1.04

for the African American-Latino comparison and *t*= 1.36 for the African American-white

comparison). Additionally, males ($\bar{x}$ = 5.09, *SD*= 1.72) drink more frequently than females ($\bar{x}$ =

4.52, *SD*= 1.83; *t*= 6.31, *p*<.001).

The baseline measure of the *frequency of drinking* is captured in 2004. On average,

youth drink a little less than one to two times per month in 2004 ($\bar{x}$ = 3.70, *SD*= 1.93). Males ($\bar{x}$

= 3.85, *SD*= 1.91) drink more frequently than females ($\bar{x}$ = 3.55, *SD*= 1.94; *t*= 3.01, *p*<.01), and

whites ($\bar{x}$ = 3.63, *SD*= 1.94) drink less frequently than both African Americans ($\bar{x}$ = 3.89, *SD*=

1.99; *t*= 2.21, *p*<.05) and Latinos ($\bar{x}$ = 4.00, *SD*= 1.81; *t*= 3.01, *p*<.01).

Independent Variables and Controls

Social Status. Assessing race/ethnic and gender differences in the relationships among risk orientation, mental health and alcohol consumption is one of the main goals of this dissertation. Because social status is so central to the analysis, a more detailed explanation of how I manage race/ethnicity and gender in my analyses is provided below. Here, I simply describe how social status variables are coded and discuss the racial/ethnic and gender makeup of the sample. To the extent that gender is related to both mental health and risk-related measures, I control for gender status by comparing males (51.46%) to females (Agnew and Brezina 1997; Aneshensel, Rutter, and Lachenbruch 1991; Christie-Mizell and Peralta 2009; Christie-Mizell, Steelman, and Stewart 2003; Hagan, Gillis, and Simpson 1985; Rosenfield and Mouzon 2013; Simon 1995, 2002). There are more Latino males (54.70%) than African American males (47.40%; $\chi^2 = 4.33$, $p<.05$) in the sample. Similarly, since race/ethnicity is tied to both mental health outcomes and risk-related outcomes, I control for race and ethnicity in the within-gender models (Bachman et al. 1991; Lauritsen 1994; Levin, Van Laar, and Foote 2006; Pasco and Richman 2009; Siebert et al. 2003; Upchurch et al. 1998; Weaver et al. 2011; Wu et al. 2011). My sample is restricted to African Americans (15.50%), Latinos (8.01%), and whites (76.49%). The racial/ethnic makeup of the gender groups does not vary significantly (all χ^2 values were equal to or less than 3.65, $p>.05$).

Child and Adolescent Controls. One of the main goals of this dissertation is to study the relationships among social status, risk orientation, and mental health and alcohol consumption among young adults. An important contribution of this dissertation, though, is to take seriously tenets of the life course perspective by theorizing that the mechanisms leading to mental health and substance use problems do not exist in a vacuum or simply materialize in young adulthood.

It is likely that the processes I examine are affected by childhood and adolescent factors. For instance, exhibiting behavior problems in childhood might be a precursor for mental health or substance use problems in young adulthood (Kandel, Kessler, and Margulies 1979; Kosterman et al. 2000; Wells et al. 1992). Similarly, growing up in a poor home environment may have lasting effects on children and adolescents which might impact mental health or substance use trajectories in young adulthood (Bailey and Hubbard 1990; Chilcoat and Anthony 1996; Kosterman et al. 2000; McCarthy and Anglin 1990). Finally, research consistently shows that socioeconomic background of origin is highly correlated with socioeconomic status and mental health in young adulthood (Fan and Eaton 2001; Gilman et al. 2002; Gilman et al. 2003; Marmot et al. 2001; Power and Manor 1992). In order to control for important elements of the life course in predicting mental health and alcohol consumption outcomes in young adulthood, I control for behavior problems, the home environment, and three socioeconomic indicators when youth in my sample were between the ages of 4 and 14.

The *Behavior Problems Index* in the NLSY was constructed by Peterson and Zill (1986) and incorporates measures of behavior problems created by several other scholars (Achenbach and Edelbrock 1981; Graham and Rutter 1968; Kellam et al. 1975; Rutter, Tizard and Whitmore 1970). This well-known and valid 28-item scale comes from the mother's report of the child's behavior problems and represents general behaviors typical in childhood as opposed to specific problems that might be more serious in nature (Christie-Mizell 2003). Examples of items include whether the child has trouble getting along with other children or teachers, is stubborn, sullen, or irritable, demands a lot of attention, or is disobedient at home. Composite scores for the BPI are provided in the total raw score for the BPI ranges 0 to 1000. I divided the raw score by 10 so that it ranges 0 to 100 where higher numbers represent a higher level of behavior

problems. On average, youth scored 59.76 on the BPI in childhood and adolescence ($\bar{x} = 59.76$, $SD= 24.44$). African Americans ($\bar{x} = 64.74$, $SD= 21.80$) scored higher on the behavior problems index than Latinos ($\bar{x} = 60.88$, $SD= 24.62$; $t= 2.31$, $p<.05$) and whites ($\bar{x} = 58.69$, $SD= 24.12$; $t= 4.33$, $p<.001$), but the latter two groups did not differ significantly ($t= 1.36$, $p>.05$). Males ($\bar{x} = 60.77$, $SD= 24.55$) and females ($\bar{x} = 58.69$, $SD= 24.12$) also did not differ in their behavior problems scores ($t= 1.59$, $p>.05$). Alpha reliability is high ($>.90$) across all groups (Peterson and Zill 1990).

The Home Observation Measurement of the Environment-Short Form (HOME-SF) scale was also included to control for the *home environment* during childhood and adolescence. The HOME-SF in the NLSY is a condensed version of the HOME inventory developed by Caldwell and Bradley (1984). The measure captures the level of cognitive stimulation (e.g., the child has at least three children's books) and emotional support (e.g., the child eats at least one meal a day with parents) received in the home through a combination of mother's report and interviewer's observations. The HOME-SF scale is one of the most used assessments in the NLSY and is a valid and reliable measure (Menaghan and Parcel 1991; Parcel and Menaghan 1989; 1990). The total raw score for the HOME-SF scale ranges from 1 to 100 where higher numbers represent a higher quality of the home environment. Youth in this sample come from households with average home environments in childhood and adolescence of 55.49 ($SD= 24.88$). Males ($\bar{x} = 55.15$, $SD= 25.52$) and females ($\bar{x} = 56.33$, $SD= 24.11$) come from similarly scored homes ($t= .98$, $p>.05$), whereas whites ($\bar{x} = 60.77$, $SD= 20.97$) come from the highest quality homes, followed by Latinos ($\bar{x} = 44.75$, $SD= 23.75$) and African Americans ($\bar{x} = 36.49$, $SD= 23.26$) (African American-Latino $t= 5.00$, $p<.001$; African American-white $t= 18.30$, $p<.001$; Latino-

white $t= 10.69$, $p<.001$). Alpha reliability across the groups ranges from .86 to .90 (Center for Human Resource Research 2002).

I additionally control for three socioeconomic indicators from childhood and adolescence. First, m*other's educational attainment* is a measure of her highest grade completed and ranges from 3 to 20. On average, the mothers of respondents in the sample had a high school education when the respondents were 4 to 14 years old ($\bar{x}$ = 12.70, *SD*= 2.15). There was no significant difference in mother's educational attainment between males ($\bar{x}$ = 12.68, *SD*= 2.20) and females ($\bar{x}$ = 12.72, *SD*= 2.09; *t*= .36, *p*>.05). Conversely, race and ethnic differences appear across all three groups. White mothers had the highest educational attainment ($\bar{x}$ = 12.89, *SD*= 1.89), followed by African American mothers ($\bar{x}$ = 12.36, *SD*= 1.75), and Latino mothers ($\bar{x}$ = 11.58, *SD*= 2.75) (African American-Latino *t*= 4.82, *p*<.001; African American-white *t*= 4.93, *p*<.001; Latino-white *t*= 8.14, *p*<.001).

Second, I control for *poverty status* in childhood and adolescence. Young adults who lived in poverty between the ages of 4 and 14 are coded 1 and are compared to all others. More than one-quarter (28.50%) of the respondents lived in poverty when they were younger. The proportion of males (39.23%) and females (38.67%) who lived in poverty does not differ significantly (χ^2= .05, *p*>.05), but there are significant race/ethnic differences in childhood/adolescent poverty status. The proportion of African Americans who lived in poverty (57.59%) is greater than the proportion of Latinos (47.58%; χ^2= 8.17, *p*<.01) and whites (21.52%; χ^2= 160.90, *p*<.001), and whites and Latinos also significantly differ on poverty status (χ^2= 76.29, *p*<.001).

Third, n*eighborhood location* in childhood and adolescence is a dummy variable that compares those who lived in the central city between the ages of 4 and 14 to all others. About 16

percent of youth lived in the central city when they were younger (16.46%). Fewer whites (10.40%) lived in urban areas compared to both African Americans (34.30%; χ^2= 100.88, p<.001) and Latinos (27.64%; χ^2= 51.63, p<.001). The proportion of African Americans and Latinos who lived in urban areas is also significantly different (χ^2= 4.18, p<.05). The proportion of males (22.72%) and females (21.20%) is not significantly different (χ^2= .51, p>.05).

Sociodemographics. In all analyses, I also control for *age*. Age is associated with mental health, including depressive symptoms (Kessler et al. 2010). Further, because of the well-established idea that youth "age out" of risk-taking behaviors (e.g., deviance, Massoglia and Uggen 2010), I test whether they also "age out" of risk orientation. It is alternatively possible that youth "age into" risk orientation or that the association between age and risk orientation varies by race/ethnicity or gender. Therefore, age is an important demographic characteristic in this study. A quadratic term for age is included in the multivariate analyses in order to assess curvilinearity. The sample ranges in age from 15 to 28 years old with the average age being between 19 and 20 ($\bar{x}$ = 19.64, SD= 3.23). Age does not vary by gender ($\bar{x}$ = 19.66, SD= 3.31 for males and $\bar{x}$ = 19.61, SD= 3.15 for females; t= .35, p>.05), but it does vary by race/ethnicity. African Americans are oldest ($\bar{x}$ = 21.57, SD= 3.38), followed by Latinos ($\bar{x}$ = 20.23, SD= 3.30), and whites ($\bar{x}$ = 19.18, SD= 2.66) (African American-Latino t= 5.64, p<.001; African American-white t= 12.83, p<.001; Latino-white t= 5.08, p<.001).

Socioeconomic status is also tied to both mental health (Link and Phelan 1995; Link et al. 2008; Phelan et al. 2004) and risk-related variables (Bursik 1988; Morenoff, Sampson, and Raudenbush 2001; Sampson 1987, 2011; Sampson and Groves 1989; Schreck, McGloin, and Kirk 2009). As indicators of socioeconomic status, I include *household income* and *educational attainment* in all of my models. Some of these youth are independent from their parents and are

already living on their own. Therefore, household income is measured by the young adult's

report of household income if they live in their own dwelling and by the mother's report if they

do not live on their own. Income is reported in thousands of dollars in Table 1. On average,

household income is $65,120 ($SD$= 60.30). Though males ($\bar{x}$ = 67.30, SD= 62.95) and females

($\bar{x}$ = 62.82, SD= 57.50) come from homes with similar income levels (t= .35, p>.05), there are

significant race/ethnic differences in household income. African Americans ($\bar{x}$ = 36.77, SD=

42.22) have the lowest household income, followed by Latinos ($\bar{x}$ = 52.59, SD= 63.12), and

whites ($\bar{x}$ = 72.18, SD= 65.60) (African American-Latino t= 4.16, p<.001; African American-

white t= 11.13, p<.001; Latino-white t= 4.68, p<.001). Due to the fact that household income is

skewed, I use a logged measure of income in all subsequent analyses.

Educational attainment is a self-reported measured of the respondent's highest grade

completed. This variable is measured in years. On average, respondents have just less than a

high school education ($\bar{x}$ = 11.31, SD= 1.95). Education does not vary by gender ($\bar{x}$ = 11.23,

SD= 1.93 for males and $\bar{x}$ = 11.39, SD= 1.96 for females; t= 1.50, p>.05) or between whites ($\bar{x}$ =

11.24, SD= 2.06) and Latinos ($\bar{x}$ = 11.17, SD= 1.94; t= .49, p>.05). However, African

Americans ($\bar{x}$ = 11.71, SD= 1.73) have slightly higher educational attainment than Latinos (t=

4.03, p<.001) and whites (t= 4.22, p<.001). Given that the age range in the sample is 15 to 28,

an average level of education that is below high school attainment would be expected.

Furthermore, the higher educational attainment of African Americans relative to their Latino and

white peers may be due to their significantly older age.

Finally, I include two indicators of neighborhood characteristics as sociodemographic

controls that likely influence the processes I examine. *Neighborhood location* is a dummy

variable that compares those living in the central city to all others. Nearly one-quarter of the

respondents live in these urban areas (23.32%). Males (30.91%) and females (32.80%) are equally likely to live in the central city (χ^2= .62, p>.05), whereas African American (50.52%; χ^2= 155.08, p<.001) and Latino (36.18%; χ^2= 51.41, p<.001) youth are more likely to live in urban areas compared to their white (16.98%) peers. African Americans are also disproportionately living in the central city compared to Latinos (χ^2= 16.89, p<.001).

I also control for *perceived neighborhood disorder* in the analyses as it has been demonstrated that perceptions of one's surroundings can have a significant impact on one's well-being above and beyond objective circumstances (Christie-Mizell and Erickson 2007). These neighborhood characteristics also likely relate to risk orientation. For instance, theories of neighborhood disorder suggest that youth in disorganized communities have more opportunities to engage in deviant behavior (Cahill and Mulligan 2003; Sampson, Raudenbush, and Earls 1997; Sampson and Groves 1989; Shaw and McKay [1942] 1969; Thrasher [1927] 1963; Tita, Cohen, and Engberg 2005).

Following Christie-Mizell and Erickson's (2007) work, I sum the following 8 items into a scale representing perceived neighborhood disorder: 1) "People do not have enough respect for rules and laws," 2) "Crime and violence," 3) "Abandoned or run-down buildings," 4) "Not enough police protection," 5) "Not enough public transportation," 6) "Too many parents who do not supervise their children," 7) "People keep to themselves and do not care what goes on," and 8) "Lots of people who cannot find jobs." The items are coded 1 (big problem), 2 (somewhat of a problem), and 3 (not a problem), and are reverse coded and summed so that higher scores represent higher perceived disorder. The scale ranges from 8 (lower perceived disorder) to 24 (higher perceived disorder) and is reliable among the pooled sample (α= .83), across gender (α= .84 for males and α= .83 for females), and across race/ethnic status (α= .86 for African

Americans, α= .80 for Latinos, and α= .77 for whites). On average, youth score 10.61 on perceived neighborhood disorder (*SD*= 3.36). African American youth perceive the most disorder in their neighborhood ($\bar{x}$ = 12.48, *SD*= 4.10), followed by Latinos ($\bar{x}$ = 10.72, *SD*= 3.03), and whites ($\bar{x}$ = 10.22, *SD*= 2.54) (African American-Latino *t*= 7.23, *p*<.001; African American-white *t*= 10.64, *p*<.001; Latino-white *t*= 2.74, *p*<.01). Males ($\bar{x}$ = 10.54, *SD*= 3.42) and females ($\bar{x}$ = 10.68, *SD*= 3.30) perceive significantly similar levels of disorder in their neighborhoods (*t*= .95, *p*>.05).

   Psychosocial Resources. To the extent that psychosocial resources affect my outcomes of interest, I control for *self-esteem* and *personal sense of mastery*. The well-established and valid Rosenberg's (1965) self-esteem scale is captured in the NLSY with the following items: 1) "I feel that I'm a person of worth, at least on an equal basis with others," 2) "I feel that I have a number of good qualities," 3) "All in all, I am inclined to feel that I am a failure," 4) "I am able to do things as well as most people," 5) "I feel that I do not have much to be proud of," 6) "I take a positive attitude toward myself," 7) "On the whole, I am satisfied with myself," 8) "I wish I could have more respect for myself," 9) "I certainly feel useless at times," and 10) "At times I think I am no good at all." Each item ranges from 1 (strongly disagree) to 4 (strongly agree), and items 3, 5, 8, 9, and 10 were reverse coded so that high scores represent higher self-esteem. The scale ranges from 10 to 40, and the average score on self-esteem is 32.31 (*SD*= 4.11). African Americans ($\bar{x}$ = 33.00, *SD*= 4.37) have significantly higher self-esteem than their white ($\bar{x}$ = 32.16, *SD*= 3.91; *t*= 3.36, *p*<.001) counterparts, but similar self-esteem compared to Latinos ($\bar{x}$ = 32.43, *SD*= 4.08; *t*= 1.93, *p*>.05). Whites and Latinos also do not differ significantly in their self-esteem (*t*= 1.02, *p*>.05). Males ($\bar{x}$ = 32.42, *SD*= 4.02) and females ($\bar{x}$ = 32.19, *SD*= 4.20) have similarly levels of self-esteem (*t*= 1.10, *p*>.05). The self-esteem scale is reliable in the

pooled sample (α= .88), and its reliability is stable across race/ethnicity and gender (α= .87 for

males and α= .88 for African Americans, Latinos, whites, and females).

The *personal sense of mastery* is another important psychosocial resource in examining

mental health and alcohol consumption outcomes. I use the terms personal sense of mastery and

sense of control interchangeably in the text, but both refer to how youth view their own influence

over important outcomes in their lives (Pearlin et al. 1981; see also Christie-Mizell and Erickson

2007). The Pearlin Mastery Scale (Pearlin et al. 1981) is assessed in the NLSY with the

following items: 1) "There is really no way I can solve some of the problems I have," 2)

"Sometimes I feel that I'm being pushed around in life," 3) "I have little control over the things

that happen to me," 4) "I can do just about anything I really set my mind to," 5) "I often feel

helpless in dealing with the problems of life," 6) "What happens to me in the future mostly

depends on me," and 7) "There is little I can do to change many of the important things in my

life." Each item ranges from 1 (strongly disagree) to 4 (strongly agree), and all items except for

4 and 6 were reverse coded so that the measure is scaled high. The mastery scale ranges from 7

(lower mastery) to 28 (higher mastery) and is reliable among the pooled sample (α= .74), as well

as across race/ethnicity (α= .74 for African Americans and whites, and α= .76 for Latinos) and

gender (α= .75 for males and α= .73 for females). On average, youth in this sample score 22.13

on sense of mastery (*SD*= 2.98). African Americans have a slightly higher sense of control ($\bar{x}$

=22.43, *SD*= 3.07) compared to whites ($\bar{x}$ = 22.05, *SD*= 2.77, *t*= 2.13, *p*<.05), but neither group

differs significantly from their Latino peers ($\bar{x}$ =22.24, *SD*= 3.22; African American-Latino *t*=

.86, *p*>.05 and Latino-white *t*= .91, *p*>.05). Sense of control also does not vary across gender

($\bar{x}$ = 22.01, *SD*= 3.00 for males and $\bar{x}$ = 22.25, *SD*= 2.94 for females; *t*=1.66, *p*>.05).

Risk-Taking Behaviors. The associations among risk-taking behaviors, race/ethnicity, and well-being, including mental health and substance use, have been empirically supported by other researchers. Because this dissertation focuses on risk orientation, which is likely to be closely related to risk-taking behavior, it is important to control for risk-taking behaviors so that my conclusions speak to the independent effects risk orientation. In other words, so that the effects of risk orientation cannot be attributed to actual risk-taking behavior, I control for four health-risk behaviors outlined in the Center for Disease Control and Prevention's (2013) Youth Risk Behavior Surveillance System (YRBSS). These behaviors include prior heavy alcohol use, sexually risky behavior, tobacco use, and other illicit drug use. All four risk-taking behaviors are measured in 2004 and predict the mental health and alcohol use outcomes in 2008.

First, I control for *prior heavy drinking*. This measure is based on the Center for Disease Control and Prevention's (2012) binge drinking fact sheet which states that 1) women who have more than four and 2) men who have more than five drinks in one sitting are heavy drinkers. According to that definition and mirroring national statistics, 31.87 percent of the sample engaged in prior heavy drinking (Center for Disease Control and Prevention 2013). Fewer African Americans (13.10%) are prior heavy drinkers compared to Latinos (34.19%; $\chi^2 = 54.61$, $p<.001$) and whites (34.99%; $\chi^2 = 68.44$, $p<.001$). Whites and Latinos do not differ significantly on this measure ($\chi^2 = .02$, $p>.05$), and neither do males (29.59%) and females (25.73%; $\chi^2 = 2.80$, $p>.05$).

The second risk-taking behavior is *early sexual initiation*. According to the YRBSS, having sexual intercourse before the age of 15 is considered to be early sexual initiation. Therefore, youth in this sample who had their first sexual intercourse before age 15 are coded as 1 and compared to all others. Less than one-quarter (18.25%) of the sample initiated sex early,

but this trend varies by race/ethnicity and gender. Fewer whites (12.44%) initiated sex early

compared to African Americans (25.36%; $\chi^2 = 32.01$, $p < .001$) and Latinos (19.66%; $\chi^2 = 9.47$,

$p < .01$). The difference between African Americans and Latinos is not significantly different

($\chi^2 = 3.74$, $p > .05$). More males (21.93%) initiated sex early than females (14.53%; $\chi^2 = 13.81$,

$p < .001$).

The third and fourth risk-taking behaviors capture cigarette use and other illicit drug use.

Having *ever smoked cigarettes* is coded 1 if the respondent has ever smoked cigarettes, and these

youth are compared to all others. A majority of the sample has smoked cigarettes (61.18%), and

the proportion of the sample who has smoked does not vary significantly among African

Americans (56.76%), Latinos (62.11%), and whites (62.62%) (African American-Latino $\chi^2 =$

2.40, $p > .05$; African American-white $\chi^2 = 3.69$, $p > .05$; Latino-white $\chi^2 = .01$, $p > .05$). Similarly,

males (62.62%) are equally as likely as females (58.40%; $\chi^2 = 2.80$, $p > .05$) to have ever smoked

cigarettes. Finally, youth who have *ever used illicit drugs* (including marijuana, cocaine and

crack cocaine, hallucinogens, and barbiturates) are coded 1 and compared to youth who have

never used these drugs. Almost half the sample has ever used illicit drugs (48.11%). A greater

proportion of Latinos (57.83%) falls into this category compared to both African Americans

(49.69%; $\chi^2 = 5.41$, $p < .05$) and whites (46.12%; $\chi^2 = 12.46$, $p < .001$), but the latter two groups do

not differ significantly ($\chi^2 = 1.35$, $p > .05$). More males (55.88%) than females (44.13%; $\chi^2 =$

20.79, $p < .001$) have ever used illicit drugs.

Analytic Strategy

In order to test the associations among risk orientation, social status, and mental health

and alcohol consumption, I use a series of ordinary least squares (OLS) regressions and

structural equation models (SEM). The SEM techniques I use include non-recursive models and

multi-group SEM. Below, I will describe how these models will be estimated and how they will

answer the research questions at hand. All analyses are weighted to account for the

oversampling of African Americans, Latinos, and disadvantaged white youth.

Assessing Risk Orientation across Social Status. In order to answer the question, *How*

does risk orientation develop across social status, I utilize OLS regressions for the pooled

sample ($N=$ 1,483), subgroups of African Americans ($n=$ 469), Latinos ($n=$ 343), and whites ($n=$

671), as well as for males ($n=$ 741) and females ($n=$ 742), respectively. For each group, I

estimate equations with and without Time 1 measures for risk orientation. The inclusion of a

Time 1 measure constitutes a change model. Such models account for omitted variables and

therefore offer a more robust test of effects. These equations take the form

Equation 1a

$$Risk\ Orientation_{T2i} = \alpha + b_1\boldsymbol{SOD}_i + b_2\boldsymbol{PSR}_i + b_3\boldsymbol{CHILD}_i + \varepsilon_i$$

Equation 1b

$$Risk\ Orientation_{T2i} = \alpha + b_1\boldsymbol{SOD}_i + b_2\boldsymbol{PSR}_i + b_3\boldsymbol{CHILD}_i + b_4 Risk\ Orientation_{T1i} + \varepsilon_i$$

where risk orientation for young adult i is a product of a vector of sociodemographics (b_1)

including socioeconomic factors and background characteristics, a vector of psychosocial

resources (b_2) including self-esteem and sense of mastery, a vector of child and adolescent

controls (b_3) including the BPI, HOME-SF scale, and socioeconomic status of origin, a Time 1

measure of risk orientation (b_4 in Equation 1b and b_5 in Equation 1d), and any error (ε_i) in

predicting risk orientation.

Because Equations 1a and 1b include a quadratic term for age, they allow me to assess

whether youth age into or out of high risk orientation as they progress through young adulthood.

Furthermore, because the equations are estimated for subgroups based on social status, I am able

to assess racial/ethnic and gender differences in the development of risk orientation, which will

subsequently inform the next steps in the analyses. Finally, because equation 1b is a change

model, it provides a more robust assessment of the development of risk orientation across

race/ethnicity and gender. The inclusion of a Time 1 parallel measure controls for any

unmeasured effects in 2008 that helped to shape risk orientation in 2004.

Assessing the Challenge Model Hypothesis. In the second step of the analyses, I estimate

OLS regressions to examine the challenge model hypothesis from Hollister-Wagner et al.'s

(2001) risk-resilience framework. The challenge model hypothesis is tested on the relationship

risk orientation has with depressive symptoms (Equations 2a-b), quantity of alcohol consumption

(Equations 2c-d), and frequency of drinking (Equations 2e-f). The equations thus take the form

Equation 2a

$Depressive\ Symptoms_{T2i}$

$$= \alpha + b_1 \boldsymbol{SOD}_i + b_2 \boldsymbol{PSR}_i + b_3 \boldsymbol{CHILD}_i + b_4 \boldsymbol{RTB}_i + b_5 Risk\ Orientation_{T1i}$$

$$+ b_6 Risk\ Orientation^2_{T1i} + \varepsilon_i$$

Equation 2b

$Depressive\ Symptoms_{T2i}$

$$= \alpha + b_1 \boldsymbol{SOD}_i + b_2 \boldsymbol{PSR}_i + b_3 \boldsymbol{CHILD}_i + b_4 \boldsymbol{RTB}_i + b_5 Risk\ Orientation_{T1i}$$

$$+ b_6 Risk\ Orientation^2_{T1i} + b_7 Depressive\ Symptoms_{T1i} + \varepsilon_i$$

Equation 2c

$Quantity\ of\ Alcohol_{T2i}$

$$= \alpha + b_1 \boldsymbol{SOD}_i + b_2 \boldsymbol{PSR}_i + b_3 \boldsymbol{CHILD}_i + b_4 \boldsymbol{RTB}_i + b_5 Risk\ Orientation_{T1i}$$

$$+ b_6 Risk\ Orientation^2_{T1i} + \varepsilon_i$$

Equation 2d

$Quantity\ of\ Alcohol_{T2i}$

$$= \alpha + b_1 \mathbf{SOD}_i + b_2 \mathbf{PSR}_i + b_3 \mathbf{CHILD}_i + b_4 \mathbf{RTB}_i + b_5 Risk\ Orientation_{T1i}$$

$$+ b_6 Risk\ Orientation^2_{T1i} + b_7 Quantity\ of\ Alcohol_{T1i} + \varepsilon_i$$

Equation 2e

$Frequency\ of\ Alcohol_{T2i}$

$$= \alpha + b_1 \mathbf{SOD}_i + b_2 \mathbf{PSR}_i + b_3 \mathbf{CHILD}_i + b_4 \mathbf{RTB}_i + b_5 Risk\ Orientation_{T1i}$$

$$+ b_6 Risk\ Orientation^2_{T1i} + \varepsilon_i$$

Equation 2f

$Frequency\ of\ Alcohol_{T2i}$

$$= \alpha + b_1 \mathbf{SOD}_i + b_2 \mathbf{PSR}_i + b_3 \mathbf{CHILD}_i + b_4 \mathbf{RTB}_i + b_5 Risk\ Orientation_{T1i}$$

$$+ b_6 Risk\ Orientation^2_{T1i} + b_7 Frequency\ of\ Alcohol_{T1i} + \varepsilon_i$$

where the three outcomes are a product of vectors for the same sociodemographics (b_1),

psychosocial resources (b_2), child and adolescent controls (b_3), and risk-taking behaviors (b_4)

described above, as well as a linear (b_5) and quadratic (b_6) term for risk orientation at Time 1

plus error (ε_i). Again, a Time 1 measure of each outcome is included in Equations 2b, 2d, and 2f

to represent change models for each outcome.

In Equations 2a-f, the linear and quadratic terms for risk orientation will help answer the

question, *Does risk orientation have a curvilinear relationship with mental health and alcohol*

consumption across race/ethnicity and gender? In other words, this part of the analysis will help

me determine whether there are some positive effects of risk orientation for mental health and

alcohol use, or whether increases in risk orientation are always associated with poorer mental

health and alcohol use outcomes. By estimating these equations across subsamples, I will be

able to tell whether patterns vary across race/ethnicity and/or gender. By holding constant prior

risk-taking behaviors, these models assess the unique effects of risk orientation on mental health

and alcohol consumption. Finally, by controlling for Time 1 measures of each outcome in

Equations 2b, 2d, and 2f, my conclusions about these associations across social status are even

more robust.

Reciprocity across Social Status. Based on my review of the literature, it follows that not

only might risk orientation have direct effects on mental health and alcohol consumption, but

also that these outcomes might simultaneously impact risk orientation. In other words, the

relationship might be cyclical, or reciprocal, in nature. It is therefore necessary to estimate non-

recursive, or reciprocal effects, models. Compared to other methods, utilizing SEM is beneficial

because it allows me to analyze multiple equations simultaneously in one step. Additionally,

because I am interested in these reciprocal processes across social status, these non-recursive

models are estimated using a maximum likelihood approach to multi-group SEM. This

technique allows me to apply the same model structures to different subgroups and compare the

parameter estimates across the groups simultaneously. In other words, I can study differences in

the magnitude of the relationship between risk orientation and mental health and alcohol

consumption across race/ethnic and gender subgroups. Using the GROUP option in the PROC

CALIS procedure in SAS 9.3, I estimate equations for African Americans, Latinos, and whites as

well as for males and females for the pathways illustrated in Figure 3.

Multi-group SEM procedures apply the same model structure to the different subgroups

being analyzed. This technique allows me to test the difference between a model wherein the

parameters are constrained to be identical across subgroups and a model wherein the magnitude

of the relation is allowed to vary between subgroups. It is the chi-square statistic that alludes to

whether the constrained model and the variable model are significantly different (Bollen 1989; see also Spoth et al. 2006). If the chi-square test suggests no significant difference, then the magnitude of the relationship of interest is not significantly different across subgroups. If, however, the chi-square test suggests a significant difference between the models, then the magnitude of the relationship of interest would not be equal across subgroups, and I would conclude that the underlying processes in this association are different for different subgroups based on social status.

Analyzing the same subgroups as above, the following equations are estimated to test the reciprocal effects between risk orientation, on the one hand, and mental health and alcohol consumption on the other hand:

Equation 3a

$Risk\ Orientation_{T2i}$

$$= \alpha + b_1 Depressive\ Symptoms_{T2i} + b_2 Risk\ Orientation_{T1i} + b_3 \boldsymbol{SOD}_i$$

$$+ b_4 \boldsymbol{PSR}_i + b_5 \boldsymbol{CHILD}_i + \varepsilon_i$$

$Depressive\ Symptoms_{T2i}$

$$= \alpha + b_1 Risk\ Orientation_{T2i} + b_2 Depressive\ Symptoms_{T1i} + b_3 \boldsymbol{SOD}_i$$

$$+ b_4 \boldsymbol{PSR}_i + b_5 \boldsymbol{CHILD}_i + b_6 \boldsymbol{RTB}_i + \varepsilon_i$$

Equation 3b

$Risk\ Orientation_{T2i}$

$$= \alpha + b_1 Quantity\ of\ Alcohol_{T2i} + b_2 Risk\ Orientation_{T1i} + b_3 \boldsymbol{SOD}_i$$

$$+ b_4 \boldsymbol{PSR}_i + b_5 \boldsymbol{CHILD}_i + \varepsilon_i$$

$Quantity\ of\ Alcohol_{T2i}$

$$= \alpha + b_1 Risk\ Orientation_{T2i} + b_2 Quantity\ of\ Alcohol_{T1i} + b_3\boldsymbol{SOD}_i$$

$$+ b_4\boldsymbol{PSR}_i + b_5\boldsymbol{CHILD}_i + b_6\boldsymbol{RTB}_i + \varepsilon_i$$

Equation 3c

$Risk\ Orientation_{T2i}$

$$= \alpha + b_1 Frequency\ of\ Alcohol_{T2i} + b_2 Risk\ Orientation_{T1i} + b_3\boldsymbol{SOD}_i$$

$$+ b_4\boldsymbol{PSR}_i + b_5\boldsymbol{CHILD}_i + \varepsilon_i$$

$Frequency\ of\ Alcohol_{T2i}$

$$= \alpha + b_1 Risk\ Orientation_{T2i} + b_2 Frequency\ of\ Alcohol_{T1i} + b_3\boldsymbol{SOD}_i$$

$$+ b_4\boldsymbol{PSR}_i + b_5\boldsymbol{CHILD}_i + b_6\boldsymbol{RTB}_i + \varepsilon_i$$

In Equations 3a-c, risk orientation for person *i* is a product of depressive symptoms (Equation 3a), quantity of alcohol consumption (Equation 3b), and frequency of drinking (Equation 3c) in the first part of each equation, and these outcomes for person *i* are a product of risk orientation in the second part of each equation. Both pieces of each equation include controls such as the Time 1 measure of the outcomes, vectors for sociodemographics (b_3), psychosocial resources (b_4), and child and adolescent controls (b_5), as well as any error in predicting risk orientation in the former part of each equation and depressive symptoms and alcohol consumption in the latter part. Additionally, equations for depressive symptoms, quantity of alcohol consumption, and frequency of drinking include a vector of risk-taking behaviors (b_6).

CHAPTER IV

RESULTS

In this chapter, I present the findings from the analyses described in chapter three. Though the sample descriptives have already been described above, I will briefly point out a few important details from Table 1. Then I will discuss the results of the multivariate analyses in two steps. In the first step, I present the findings in Tables 2-4 from linear regression models for the four main outcomes. These findings are examined among the pooled sample ($N= 1,483$), as well as among African Americans ($n= 461$), Latinos ($n= 343$), and whites ($n= 671$) separately and males ($n= 741$) and females ($n= 742$) separately. I want to point out that Hypotheses 11 through 14 will be addressed at the same time I address Hypotheses 5, 6, and 7 because they are illustrated in the same tables. In the second step, I describe the results of structural equation models that assess the non-recursive association between risk orientation and the other three outcomes. These results are also examined among the three race/ethnic groups and both gender groups separately through multi-group SEM and are illustrated in figures below.

Table 1 illustrates important group differences in risk orientation and risk-taking behaviors. Namely, risk orientation is lower among African Americans compared to whites and Latinos, but the latter two groups have similar levels of risk orientation in both survey years. Risk orientation is also lower among females compared to males both at Time 1 and Time 2. Among the risk-taking behaviors analyzed, having ever smoked cigarettes is the only behavior that does not vary across social status. All groups are equally likely to have ever smoked cigarettes. The other three behaviors do vary across social status. For instance, more males in

the sample initiated sex early and have used illicit drugs compared to females. However, there is

no gender difference in heavy drinking. Fewer African Americans drink heavily compared to

both Latinos and whites, but both African Americans and Latinos are more likely to have used

illicit drugs compared to whites. Finally, while African Americans and Latinos are equally likely

to have had sex before age 15, more African Americans and Latinos initiate sex early compared

to white youth.

Risk Orientation, Well-Being, and Social Status

The next several tables illustrate the results of multivariate analyses of the four main

outcomes. Table 2a shows the results of regressing risk orientation on social status and controls.

In the first model, risk orientation is regressed on social status. Model 2 adds child and

adolescent controls. Model 3 includes important sociodemographic controls. Model 4 adds

psychosocial resources to the analysis and is referred to as the full model. Model 5 will be

described in more detail below. Recall that Hypothesis 1 predicted a curvilinear association

between age and risk orientation. In analyses not shown, a quadratic term for age was included

to test the curvilinear relationship between age and risk orientation, but it was not significant

(Hypothesis 1 not supported). In the full model, African Americans have lower risk orientation

($b= -.683$, $p<.001$) compared to whites (Hypothesis 2 supported), but there is no significant

difference between Latinos and whites ($b= -.317$, $p>.05$) (Hypothesis 3 not supported). On

average, males score 1.146 points higher on the risk orientation scale than females ($p<.001$) net

of other controls (Hypothesis 4 supported).

Table 2a also shows that two child and adolescent controls have an influence on risk

orientation in young adulthood. Higher scores on the BPI increase risk orientation ($b= .005$,

Table 2a: Risk Orientation (T2) Regressed on Background Characteristics. (Pooled Sample; N=1,483).

	Model 1		Model 2		Model 3		Model 4		Model 5	
	b	SE	b	SE	b	SE	b	SE	b	SE
Social Status										
African American (1=Yes)[A]	-.662***	.171	-.921***	.193	-.745***	.203	-.683***	.204	-.316	.181
Latino (1=Yes)[A]	-.297	.228	-.415	.235	-.342	.231	-.317	.231	-.277	.203
Male (1=Yes)[B]	1.210***	.123	1.179***	.122	1.124***	.120	1.146***	.120	.729***	.108
Child and Adolescent Controls										
Behavior Problems Index			.006*	.003	.005*	.002	.005*	.002	.004	.002
Home Observation Scale			-.014***	.003	-.009**	.003	-.008**	.003	-.006*	.003
Mother's Educational Attainment			.037	.034	.013	.034	.009	.034	-.024	.030
Poverty Status (1=Yes)			-.180	.152	-.187	.151	-.213	.151	-.220	.133
Lived in the Central City (1=Yes)			-.090	.172	-.193	.173	-.197	.151	-.099	.153
Sociodemographics										
Age (Years)					-.016	.029	-.021	.029	.005	.026
Household Income (Logged)					.090**	.032	.085**	.032	.067*	.028
Educational Attainment (Years)					-.224***	.041	-.210***	.042	-.141***	.037
Lives in the Central City (1=Yes)					-.035	.153	-.041	.152	-.050	.134
Perceived Neighborhood Disorder					.094***	.021	.093***	.021	.064***	.019
Psychosocial Resources										
Self-esteem							-.050**	.017	-.004	.015
Personal Sense of Mastery							.019	.024	.026	.021
Time 1 Control										
Risk Orientation (T1)									.458***	.022
Intercept	14.087***	.094	14.147***	.494	15.158***	.779	16.388***	.973	7.549***	.959
R-Square	.069		.084		.133		.137		.329	

Notes:
*p<.05. **p<.01. ***p<.001.
[A] Reference category is white.
[B] Reference category is female.

p<.05), while higher scores on the HOME scale decrease risk orientation in young adulthood (*b*= -.008, *p*<.01). Household income and perceived neighborhood disorder increase risk orientation among youth. Logged household income (*b*= .085, *p*<.01) and perceived neighborhood disorder (*b*= .093, *p*<.001) are positively associated with risk orientation while educational attainment has a negative association with risk orientation (*b*= -.210, *p*<.001). Age (*b*= -.021, *p*>.05) and central city location (*b*= -.041, *p*>.05) do not significantly predict risk orientation. Finally, in the full model self-esteem reduces risk orientation (*b*= -.050, *p*<.01), but personal sense of mastery is not related to risk orientation (*b*= .019, *p*>.05).

Model 5 of Table 2a is a change model, meaning that it controls for a Time 1 measure of the outcome. Whereas the full model shows how the covariates impact the onset of risk orientation, the change model shows which predictors are robust over time. The change model captures everything that shaped risk orientation at Time 1, which theoretically also shapes risk orientation at Time 2. Even if important predictors of risk orientation are omitted in the full model, the change model essentially controls for these things with the Time 1 measure. Therefore, while the impacts of African American status, the BPI score, and self-esteem significantly predict risk orientation in the full model, they are not significant predictors of risk orientation when a Time 1 measure is included. In other words, while these things matter for the onset of risk orientation, they are not robust predictors in the development of risk orientation over time.

The aim of the next three tables is to assess 1) whether risk orientation has a curvilinear relationship with the other three outcomes of interest and 2) whether risk-taking behaviors impact well-being net of risk orientation. Table 2b shows the results of regressing depressive symptoms at Time 2 on risk orientation at Time 1. Again, this regression was carried out in steps adding social status, child and adolescent controls, sociodemographics, psychosocial resources, and risk-taking behaviors to the full model. Model 8 represents a change model. Starting in Model 6 when psychosocial resources are added to the analysis, risk orientation has a significant curvilinear relationship with depressive symptoms. Initial increases in risk orientation are associated with a decrease in depressive symptoms ($b = -.553$, $p < .05$), but further increases in risk orientation increase depressive symptoms ($b = .026$, $p < .01$). This curvilinear association is robust in the full mode (Model 7) when risk-taking behaviors are added to the equation (Hypothesis 5 supported). Again, the same pattern in Model 6 can be seen in Model 7 where

Table 2b: Depressive Symptoms (T2) Regressed on Risk Orientation and Selected Variables. (Pooled Sample; N=1,483).

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8	
	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE
Risk Orientation																
Risk Orientation (T1)	.267 ***	.036	-.390	.249	-.290	.247	-.179	.247	-.172	.244	-.553 *	.251	-.572 *	.250	-.359	.239
Risk Orientation (T1)^2			.022 **	.008	.020 *	.008	.016 *	.008	.015	.008	.026 **	.008	.026 **	.008	.016 *	.008
Social Status																
African American (1=Yes)[A]					.856 ***	.252	.622 *	.285	.370	.303	.513	.302	.747 *	.303	.684 *	.289
Latino (1=Yes)[A]					-.132	.332	-.302	.344	-.280	.342	-.196	.339	-.227	.337	-.232	.322
Male (1=Yes)					-.867 ***	.182	-.890 ***	.181	-.884 ***	.180	-.807 ***	.179	-.818 ***	.178	-.581 ***	.171
Child and Adolescent Controls																
Behavior Problems Index							.015 ***	.004	.014 ***	.004	.012 ***	.004	.012 **	.004	.010 **	.004
Home Observation Scale							.002	.005	.004	.005	.005	.005	.004	.005	.003	.005
Mother's Educational Attainment							-.028	.050	.004	.051	-.008	.051	-.002	.051	-.041	.048
Poverty Status (1=Yes)							.430	.222	.324	.224	.252	.222	.235	.221	.131	.211
Lived in the Central City (1=Yes)							.061	.251	.057	.257	.053	.254	.108	.253	.043	.242
Sociodemographics																
Age (Years)									.051	.043	.028	.043	-.006	.043	-.042	.041
Household Income (Logged)									.044	.048	.033	.047	.047	.048	.082	.046
Educational Attainment (Years)									-.162 **	.061	-.107	.062	-.113	.062	-.087	.059
Lives in the Central City (1=Yes)									-.298	.226	-.299	.224	-.317	.222	-.305	.212
Perceived Neighborhood Disorder									.195 ***	.031	.190 ***	.031	.178 ***	.031	.127 ***	.030
Psychosocial Resources																
Self-esteem											-.126 ***	.025	-.129 ***	.025	-.074 **	.024
Personal Sense of Mastery											-.013	.035	-.001	.035	.018	.033
Risk-Taking Behaviors																
Prior Heavy Drinker (1=Yes)													.664 ***	.196	.635 ***	.187
Early Sexual Initiation (1=Yes)													-.216	.260	-.204	.248
Ever Smoked Cigarettes (1=Yes)													.320	.216	.244	.206
Ever Used Illicit Drugs (1=Yes)													.345	.213	.298	.203
Time 1 Control																
Depressive Symptoms (T1)															.298 ***	.025
Intercept	.478	.548	5.345 **	1.907	4.556 *	1.900	3.068	2.030	1.282	2.202	8.843 ***	2.591	9.245 ***	2.601	6.038 *	2.496
R-Square	.035		.039		.059		.072		.098		.115		.127		.206	

Notes:

*p<.05. **p<.01. ***p<.001.

[A] Reference category is white.

[B] Reference category is female.

initial increases in risk orientation decrease depressive symptoms ($b=$ -.572, $p<.05$), but further

increases are associated with an increase in depressive symptoms ($b=$ .026, $p<.01$). In the

change model (Model 8), the initial decrease in depressive symptoms with increases in risk

orientation is reduced to non-significant ($b=$ -.359, $p>.05$) while the quadratic term remains

significant ($b=$ .016, $p<.05$). Therefore, the relationship between risk orientation and depressive

symptoms is curvilinear when examining the onset of depressive symptoms, but not when

controlling for a Time 1 measure of depressive symptoms.

In Model 7 where risk-taking behaviors are added to the analysis, only prior heavy

drinking significantly increases depressive symptoms ($b=$ .664, $p<.001$) (Hypothesis 11a

supported). This effect is robust in the change model ($b=$ .635, $p<.001$). Controlling for risk

orientation, illicit drug use (Hypothesis 12a not supported), early sexual initiation (Hypothesis

13a), and having ever smoked cigarettes (Hypothesis 14a) do not significantly impact depressive

symptoms.

Table 2c shows the results of regressing the quantity of alcohol consumption at Time 2

on risk orientation at Time 1. The same steps assessed above with depressive symptoms are

carried out here. However, the relationship between quantity of alcohol consumption and risk

orientation was never curvilinear in any model (Hypothesis 6 not supported). Table 2c therefore

shows the results when the linear effect of risk orientation on alcohol consumption is assessed.

An increase in risk orientation increases alcohol consumption ($b=$ .106, $p<.01$). This finding

persists even when risk-taking behaviors are included in the full model. Therefore, not only is

risk orientation a significant factor at the onset of alcohol consumption, but the change model

suggests that this relationship remains significant even when controlling for the number of drinks

consumed per occasion at Time 1 ($b=$ .096, $p<.01$). Among the risk-taking behaviors assessed

Table 2c: Number of Drinks Consumed per Occasion (T2) Regressed on Risk Orientation and Selected Variables. (Pooled Sample; N= 1,483).

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8	
	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE
Risk Orientation																
Risk Orientation (T1)	.231***	.035	-.188	.246	.172***	.036	.164***	.036	.121***	.036	.133***	.037	.106**	.037	.096**	.037
Risk Orientation (T1)^2			.014	.008	----	----	----	----	----	----	----	----	----	----	----	----
Social Status																
African American (1=Yes)[A]					-.929***	.247	-1.171***	.282	-.986**	.301	-1.058***	.302	-.824**	.303	-.787**	.301
Latino (1=Yes)[A]					-.116	.327	-.273	.340	-.224	.340	-.261	.339	-.317	.337	-.314	.335
Male (1=Yes)					1.096***	.179	1.091***	.179	1.112***	.179	1.111***	.179	1.098***	.178	.956***	.179
Child and Adolescent Controls																
Behavior Problems Index							.004	.004	.003	.004	.003	.004	.003	.004	.004	.004
Home Observation Scale							-.006	.005	-.001	.005	-.002	.005	-.004	.005	-.005	.005
Mother's Educational Attainment							.002	.049	-.015	.051	-.005	.051	-.008	.051	-.003	.050
Poverty Status (1=Yes)							.371	.219	.324	.222	.319	.222	.301	.220	.282	.218
Lived in the Central City (1=Yes)							-.251	.249	-.349	.255	-.349	.254	-.306	.253	-.262	.251
Sociodemographics																
Age (Years)									-.008	.043	.007	.043	-.021	.043	-.032	.043
Household Income (Logged)									-.017	.048	-.013	.047	-.011	.048	-.011	.047
Educational Attainment (Years)									-.258***	.061	-.297***	.062	-.308***	.062	-.294***	.062
Lives in the Central City (1=Yes)									.049	.224	.049	.224	.023	.222	.009	.221
Perceived Neighborhood Disorder									.018	.031	.025	.031	.014	.031	.013	.031
Psychosocial Resources																
Self-esteem											.012	.025	.008	.024	.008	.024
Personal Sense of Mastery											.086*	.035	.096**	.035	.091**	.034
Risk-Taking Behaviors																
Prior Heavy Drinker (1=Yes)													.898***	.196	-.081	.277
Early Sexual Initiation (1=Yes)													-.239	.259	-.335	.258
Ever Smoked Cigarettes (1=Yes)													-.001	.216	-.009	.214
Ever Used Illicit Drugs (1=Yes)													.341	.213	.259	.212
Time 1 Control																
Quantity of Alcohol Consumption (T1)															.191***	.038
Intercept	.244	.541	3.346	1.886	.719	.546	.913	.869	4.567***	1.279	2.076	1.597	2.833	1.608	3.013	1.596
R-Square	.027		.028		.057		.061		.080		.084		.099		.113	

Notes:

*p<.05. **p<.01. ***p<.001.

[A] Reference category is white.

[B] Reference category is female.

Table 2d: Frequency of Alcohol Consumption (T2) Regressed on Risk Orientation and Selected Variables. (Pooled Sample; N= 1,483).

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8	
	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE
Risk Orientation																
Risk Orientation (T1)	.054 **	.018	.007	.127	.031	.018	.031	.019	.038 *	.019	.040 *	.019	.021	.019	.007	.019
Risk Orientation (T1)[2]			.002	.004	---		---		---		---		---		---	
Social Status																
African American (1=Yes)[A]					-.125	.128	-.001	.146	-.119	.157	-.144	.158	-.035	.158	-.113	.154
Latino (1=Yes)[A]					-.286	.170	-.143	.176	-.189	.177	-.199	.177	-.230	.176	-.307	.171
Male (1=Yes)					.547 ***	.092	.551 ***	.092	.552 ***	.093	.559 ***	.093	.546 ***	.092	.492 ***	.090
Child and Adolescent Controls																
Behavior Problems Index							.003	.002	.002	.002	.002	.002	.002	.002	.001	.002
Home Observation Scale							.005 *	.002	.005	.002	.004	.002	.004	.002	.002	.002
Mother's Educational Attainment							.063 *	.025	.075 **	.026	.078 **	.026	.079	.026	.066 *	.025
Poverty Status (1=Yes)							.120	.113	.102	.115	.095	.115	.090	.114	.134	.111
Lived in the Central City (1=Yes)							-.058	.128	-.075	.133	-.076	.132	-.069	.132	-.014	.128
Sociodemographics																
Age (Years)									.036	.029	.043	.025	.021	.025	-.039	.025
Household Income (Logged)									-.010	.025	-.009	.025	-.003	.025	-.000	.024
Educational Attainment (Years)									.004	.034	-.012	.036	-.008	.035	-.016	.034
Lives in the Central City (1=Yes)									.131	.117	.127	.117	.105	.116	.081	.113
Perceived Neighborhood Disorder									-.005	.016	-.003	.016	-.012	.016	-.009	.016
Psychosocial Resources																
Self-esteem											-.006	.013	-.008	.013	-.010	.012
Personal Sense of Mastery											.043 *	.018	.046 *	.018	.041 *	.018
Risk-Taking Behaviors																
Prior Heavy Drinker (1=Yes)													.423 ***	.102	.084	.105
Early Sexual Initiation (1=Yes)													.148	.135	.145	.131
Ever Smoked Cigarettes (1=Yes)													.018	.112	-.100	.109
Ever Used Illicit Drugs (1=Yes)													.226 *	.110	.155	.108
Time 1 Control																
Frequency of Alcohol Consumption (T1)															.260 ***	.028
Intercept	4.007 ***	.279	4.351 ***	.973	4.110 ***	.282	2.799 ***	.448	1.996 **	.669	1.209	.836	1.711	.840	2.837 ***	.824
R-Square	.005		.005		.028		.035		.037		.039		.057		.110	

Notes:

*p<.05. **p<.01. ***p<.001.

[A] Reference category is white.

[B] Reference category is female.

80

in these analyses, only prior heavy drinking significantly increases the number of drinks consumed per occasion ($b= .898$, $p<.001$) (Hypothesis 11b supported). Net of risk orientation, illicit drug use (Hypothesis 12b not supported), early sexual initiation (Hypothesis 13b not supported), and having ever smoked cigarettes (Hypothesis 14b not supported) are not associated with the number of drinks consumed at Time 2.

The impact of risk orientation on the frequency of alcohol consumption is reflected in Table 2d. Similar to the quantity of alcohol consumption, risk orientation only ever has a linear association with the frequency of drinking among these youth (Hypothesis 7 not supported). In Model 6, risk orientation significantly increases the frequency of drinking ($b= .040$, $p<.05$) net of social status, child and adolescent controls, sociodemographics, and psychosocial resources. However, in Model 7 when risk-taking behaviors are added, the effect of risk orientation on the frequency of drinking is reduced to non-significant ($b= .021$, $p>.05$). Risk orientation does not significantly predict frequency of drinking in the change model either ($b= .007$, $p>.05$). Accounting for risk orientation, only two risk-taking behaviors are significantly associated with the frequency of drinking. Prior heavy drinking ($b= .423$, $p<.001$) and having ever used illicit drugs ($b= .226$, $p<.05$) both significantly increase frequency of drinking at Time 2 (Hypotheses 11c and 12c supported). Early sexual initiation (Hypothesis 13c not supported) and having ever smoked cigarettes (Hypothesis 14c not supported) do not impact frequency of drinking.

Tables 3a-d and 4a-d show the analyses presented in Tables 2a-d across race/ethnicity and gender, respectively. Table 3a shows that males in all three race/ethnic groups have higher risk orientation than females. African American males have higher risk orientation than African American females ($b= 1.082$, $p<.001$). Among Latinos, males also have higher risk orientation than females ($b= 1.281$, $p<.001$). Finally, white males have significantly higher risk orientation

Table 3a: Risk Orientation (T2) Regressed on Background Characteristics across Race-Ethnicity

	African Americans N=469				Latinos N=343				Whites N=671			
	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE
Social Status												
Male (1=Yes)[A]	1.082 ***	.251	.574 *	.231	1.281 ***	.273	.876 **	.271	1.160 ***	.171	.767 ***	.150
Child and Adolescent Controls												
Behavior Problems Index	.002	.006	-.001	.005	.002	.006	.002	.006	.005	.004	.004	.003
Home Observation Scale	.001	.006	.004	.006	.015 *	.006	.011	.006	-.013	.005	-.010 *	.004
Mother's Educational Attainment	-.036	.083	-.076	.075	.048	.058	.036	.056	.019	.051	-.015	.044
Poverty Status (1=Yes)	.159	.283	.167	.254	-.469	.327	-.230	.315	-.275	.225	-.337	.194
Lived in the Central City (1=Yes)	-.114	.280	.017	.252	-.191	.295	-.231	.283	-.203	.284	-.074	.246
Sociodemographics												
Age (Years)	-.090 *	.045	-.042	.041	-.016	.058	.006	.056	.016	.057	.013	.049
Household Income (Logged)	.045	.051	.032	.046	.004	.078	.003	.075	.109 *	.050	.083	.043
Educational Attainment (Years)	.030	.088	.032	.079	-.255 **	.092	-.249 **	.088	-.262 ***	.072	-.145	.063
Lives in the Central City (1=Yes)	-.113	.276	-.196	.248	.102	.048	.124	.271	.023	.237	.035	.205
Perceived Neighborhood Disorder	.019	.031	.011	.028	.040	.048	.020	.047	.136 ***	.034	.097 **	.030
Psychosocial Resources												
Self-esteem	-.127 ***	.031	-.049	.029	-.025	.037	-.008	.036	-.032	.024	.009	.021
Personal Sense of Mastery	.032	.044	.043	.040	.072	.047	.075	.045	-.002	.035	-.003	.031
Time 1 Control												
Risk Orientation (T1)	----	----	.469 ***	.044	----	----	.314 ***	.056	----	----	.469 ***	.032
Intercept	18.17 ***	1.926	8.671 ***	1.948	14.535 ***	1.964	9.319 ***	2.097	15.631 ***	1.497	7.033 ***	1.419
R-Square	.064		.247		.105		.180		.157		.369	

Notes:

*p<.05. **p<.01. ***p<.001.

[A] Reference category is female.

82

than white females ($b= 1.160$, $p<.001$). For all three groups, this gender difference is robust in the change models where a Time 1 measure of risk orientation is included. Of the child and adolescent controls measured, only the HOME scale significantly predicts risk orientation among Latinos in the full model ($b= .015$, $p<.05$) and among whites in the change model ($b= -.010$, $p<.05$).

Risk orientation decreases with age among African Americans in the full model ($b= -.090$, $p<.05$), but not among Latinos and whites. Income increases risk orientation among whites ($b= .109$, $p<.05$), while educational attainment decreases risk orientation for this group ($b= -.262$, $p<.001$). Neither of these predictors remains significant in the change model for whites. However, the positive association of perceived neighborhood disorder and risk orientation is significant for whites in the full model ($b= .136$, $p<.001$) and in the change model ($b= .097$, $p<.01$). Educational attainment is a significant buffer against risk orientation for Latinos both in the full model ($b= -.255$, $p<.01$) and in the change model ($b= -.249$, $p<.01$). Finally, self-esteem only reduces risk orientation in the full model among African American youth ($b= -.127$, $p<.001$), and mastery does not predict risk orientation for any of the three groups.

Table 3b shows the results of regressing depressive symptoms on risk orientation across race/ethnicity. Risk orientation did not have a curvilinear relationship with depressive symptoms for any one race/ethnic group in particular. Instead, the effect of risk orientation was linear and positive for African Americans and whites. In the full model, risk orientation increases depressive symptoms for African Americans ($b= .194$, $p<.01$) and for whites ($b=.246$, $p<.001$). In the change model, the increase is slightly reduced but still significant and positive for both African Americans ($b= .131$, $p<.05$) and whites ($b= .130$, $p<.05$). Risk orientation does not

Table 3b: Depressive Symptoms (T2) Regressed on Risk Orientation and Selected Variables across Race-Ethnicity.

	African Americans N=469				Latinos N=343				Whites N=671			
	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE
Risk Orientation												
Risk Orientation (T1)	.194 **	.065	.131 *	.064	-.033	.080	-.090	.077	.246 ***	.057	.130 *	.055
Risk Orientation (T1)²	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
Social Status												
Male (1=Yes)^A	-1.147 ***	.342	-.787 *	.339	-.904 *	.380	-.594	.369	-.754 **	.264	-.565 *	.250
Child and Adolescent Controls												
Behavior Problems Index	-.010	.008	-.009	.007	.029 ***	.008	.023 **	.008	.015 **	.005	.014 **	.005
Home Observation Scale	.019 *	.008	.019 *	.008	.001	.009	.001	.008	.002	.007	.002	.007
Mother's Educational Attainment	-.200	.108	-.183	.105	.148	.079	.093	.077	.004	.078	-.061	.073
Poverty Status (1=Yes)	-.245	.368	-.360	.385	-.246	.444	-.206	.426	.372	.341	.217	.322
Lived in the Central City (1=Yes)	.423	.364	.295	.355	.156	.397	-.139	.386	-.105	.435	-.086	.410
Sociodemographics												
Age (Years)	-.094	.060	-.107	.058	.161 *	.081	.085	.079	-.014	.089	-.063	.084
Household Income (Logged)	-.035	.066	-.041	.065	.116	.107	.100	.103	.072	.077	.135	.072
Educational Attainment (Years)	-.108	.115	-.112	.111	-.344 **	.126	-.236	.123	-.084	.112	-.047	.105
Lives in the Central City (1=Yes)	-.615	.361	-.322	.355	-.302	.381	-.182	.367	-.165	.361	-.302	.340
Perceived Neighborhood Disorder	.202 ***	.041	.175 ***	.040	.085	.066	.069	.064	.186 ***	.053	.107 *	.050
Psychosocial Resources												
Self-esteem	-.130 **	.042	-.094 *	.041	-.058	.050	-.007	.049	-.105 **	.038	-.047	.036
Personal Sense of Mastery	-.027	.057	-.018	.056	-.041	.063	-.041	.060	-.007	.055	.019	.051
Risk-Taking Behaviors												
Prior Heavy Drinker (1=Yes)	.681	.467	.449	.456	.623	.386	.452	.372	.595 *	.287	.586 *	.270
Early Sexual Initiation (1=Yes)	.820 *	.390	.879 *	.379	-.775	.483	-.615	.465	-.358	.422	-.429	.398
Ever Smoked Cigarettes (1=Yes)	.860 *	.362	.813 *	.352	.723	.445	.624	.428	.231	.333	.149	.313
Ever Used Illicit Drugs (1=Yes)	.050	.371	-.075	.361	-.531	.450	-.526	.432	.476	.321	.466	.303
Time 1 Control												
Depressive Symptoms (T1)	----	----	.223 ***	.042	----	----	.262 ***	.049	----	----	.345 ***	.038
Intercept	13.747 ***	4.132	11.143 **	4.045	2.990	3.019	2.607	2.899	1.499	2.542	0.924	2.395
R-Square	.169		.215		.084		.156		.114		.215	

Notes:

*p<.05. **p<.01. ***p<.001.

^A Reference category is female.

Table 3c: Number of Drinks Consumed per Occasion (T2) Regressed on Risk Orientation and Selected Variables across Race-Ethnicity.

	African Americans N=469 b	African Americans N=469 SE	Latinos N=343 b	Latinos N=343 SE	Whites N=671 b	Whites N=671 SE
Risk Orientation						
Risk Orientation (T1)	.020	.059	.046	.077	.104*	.056
Risk Orientation (T1)²	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
Social Status						
Male (1=Yes)[A]	.180	.310	.946*	.366	1.141***	.262
Child and Adolescent Controls						
Behavior Problems Index	-.013	.007	-.002	.008	.007	.005
Home Observation Scale	.003	.007	-.001	.008	-.008	.007
Mother's Educational Attainment	-.092	.098	-.022	.076	-.008	.076
Poverty Status (1=Yes)	.425	.334	-.861*	.425	.370	.334
Lived in the Central City (1=Yes)	.090	.329	-.663	.380	-.226	.427
Sociodemographics						
Age (Years)	.034	.055	-.116	.078	-.022	.087
Household Income (Logged)	-.182**	.060	-.115	.102	.070	.075
Educational Attainment (Years)	-.198	.104	-.088	.121	-.328	.110
Lives in the Central City (1=Yes)	-.082	.326	.631	.364	.016	.353
Perceived Neighborhood Disorder	-.018	.037	-.045	.063	.037	.052
Psychosocial Resources						
Self-esteem	-.024	.037	-.010	.049	.021	.037
Personal Sense of Mastery	.057	.052	.156*	.061	.068	.054
Risk-Taking Behaviors						
Prior Heavy Drinker (1=Yes)	.761	.422	-.015	.372	-.118	.283
Early Sexual Initiation (1=Yes)	.009	.353	.305	.466	-.484	.418
Ever Smoked Cigarettes (1=Yes)	.383	.328	-.196	.431	-.042	.329
Ever Used Illicit Drugs (1=Yes)	.017	.336	.243	.435	.315	.318
Time 1 Control						
Quantity of Alcohol Consumption (T1)	----	----	.224**	.077	.199***	.054
Intercept	6.819**	2.554	3.869**	2.897	1.941	2.492
R-Square	.033		.102		.126	

Notes:

*p<.05. **p<.01. ***p<.001.

[A] Reference category is female.

significantly predict depressive symptoms for Latino youth. Another finding illustrated in Table 3b is that males score lower on the depressive symptoms scale than females among all three race/ethnic groups (*b*= -1.147, *p<.001* for African Americans; *b*= -.904, *p<.05* for Latinos; *b*= -.754, *p<.01* for whites). For African Americans (*b*= -.797, *p<.05*) and whites (*b*= -.565, *p<.05*),

this gender difference persists in the change model, whereas among Latinos, it is reduced to non-significant in the change model ($b= -.594, p>.05$).

Table 3c examines the relationship between risk orientation and the quantity of alcohol consumption across the three race/ethnic groups. The association is not curvilinear for any of the groups, and is only linearly significant for whites. An increase in risk orientation is associated with an increase in the number of drinks consumed per occasion among whites ($b= .118, p<.05$). When a Time 1 measure of the number of drinks consumed per occasion is included in the change model, this effect is reduced to non-significant ($b= .104, p>.05$). This table also illustrates gender differences in alcohol consumption across race/ethnicity. Whereas no gender difference in the number of drinks consumed per occasion exists for African Americans ($b= .180, p>.05$), males drink more than females among Latinos ($b= 1.140, p<.01$) and whites ($b= 1.300, p<.001$). Even controlling for a Time 1 measure of the outcome, these gender differences for Latinos ($b= .946, p<.05$) and whites ($b= 1.141, p<.001$) remain.

In Table 3d, the results of regressing the frequency of alcohol consumption on risk orientation across race/ethnicity are illustrated. As with depressive symptoms and the quantity of alcohol consumption, the association between risk orientation and the frequency of alcohol consumption was not curvilinear across race/ethnicity. In fact, risk orientation does not predict frequency of drinking for any racial/ethnic group in the full model. In analyses not shown in the table, risk orientation had a significant and positive effect on the frequency of drinking for whites

Table 3d: Frequency of Alcohol Consumption (T2) Regressed on Risk Orientation and Selected Variables across Race-Ethnicity.

	African Americans N= 469				Latinos N= 343				Whites N= 671			
	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE
Risk Orientation												
Risk Orientation (T1)	-.034	.033	-.051	.031	-.053	.041	-.062	.041	.037	.029	.024	.029
Risk Orientation (T1)²	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
Social Status												
Male (1=Yes)^A	.833***	.175	.661***	.164	.502**	.194	.524**	.193	.518***	.136	.468***	.133
Child and Adolescent Controls												
Behavior Problems Index	.003	.004	.003	.004	-.005	.004	-.005	.004	.002	.003	.001	.003
Home Observation Scale	.011*	.004	.009*	.004	.001	.004	.001	.004	.002	.004	.000	.004
Mother's Educational Attainment	-.012	.005	-.023	.051	.028	.040	.021	.040	.101*	.040	.088*	.039
Poverty Status (1=Yes)	.463*	.189	.439*	.176	-.989***	.226	-.977***	.226	.098	.175	.154	.172
Lived in the Central City (1=Yes)	-.043	.186	.073	.174	-.347	.203	-.325	.202	.057	.224	.072	.219
Sociodemographics												
Age (Years)	-.010	.031	-.094**	.030	-.025	.041	-.043	.042	.031	.046	-.025	.046
Household Income (Logged)	-.037	.034	-.009	.032	-.140*	.054	-.134*	.054	.029	.039	.022	.038
Educational Attainment (Years)	-.024	.059	.022	.055	.016	.064	.008	.064	-.003	.057	-.013	.056
Lives in the Central City (1=Yes)	-.266	.184	-.151	.172	.101	.194	.108	.194	.275	.185	.214	.182
Perceived Neighborhood Disorder	.030	.021	.022	.019	-.056	.034	-.054	.034	-.027	.027	-.021	.027
Psychosocial Resources												
Self-esteem	-.018	.021	-.021	.020	-.047	.026	-.046	.026	.002	.019	-.001	.019
Personal Sense of Mastery	.020	.030	-.010	.028	.006	.032	.010	.032	.060*	.028	.055*	.027
Risk-Taking Behaviors												
Prior Heavy Drinker (1=Yes)	1.117***	.239	.507*	.234	.703***	.197	.607**	.204	.317*	.147	.015	.154
Early Sexual Initiation (1=Yes)	.133	.200	.076	.186	-.056	.246	-.069	.246	.154	.217	.171	.212
Ever Smoked Cigarettes (1=Yes)	.207	.186	.243	.173	-.265	.228	-.254	.227	.022	.171	-.135	.169
Ever Used Illicit Drugs (1=Yes)	.016	.190	-.086	.177	.557*	.230	.515*	.231	.274	.165	.211	.162
Time 1 Control												
Frequency of Drinking (T1)	---	---	.372***	.044	---	---	.099	.057	---	---	.240***	.043
Intercept	4.550**	1.444	5.536***	1.349	8.890***	1.540	9.027***	1.537	0.180	1.306	1.466	1.297
R-Square	.111		.230		.122		.128		.052		.095	

Notes:
*p<.05. **p<.01. ***p<.001.
^A Reference category is female.

before risk-taking behaviors were added to the model (*b*= .059, *p<*.05). Gender differences in the frequency of drinking exist for all three groups. Among African Americans (*b*= .833, *p<*.001), Latinos (*b*= .502, *p<*.01), and whites (*b*= .518, *p<*.001), males drink more frequently than females. In the change model, the effect is slightly reduced but remains significant for

87

African Americans ($b= .661$, $p<.001$) and for whites ($b= .468$, $p<.001$). The effect slightly increases among Latinos ($b= .524$, $p<.01$).

Table 4a demonstrates race and ethnic differences in risk orientation within gender groups. African American males have lower risk orientation ($b= -.633$, $p<.05$) than their white counterparts, but Latino males ($b= -.250$, $p>.05$) and white males do not significantly differ. This race difference among African American and white males does not persist in the change model ($b= -.366$, $p>.05$). Similarly, African American females have lower risk orientation compared to white females ($b= -.697$, $p<.05$), but Latinas and white females are not significantly different in their risk orientation ($b= .375$, $p>.05$). The race difference between African American females and white females is not maintained in the change model ($b= -.219$, $p>.05$). Tables 4b-d illustrate the within-gender effects of risk orientation on depressive symptoms and alcohol consumption. Among males, risk orientation has a linear and positive association with depressive symptoms as shown in Table 4b ($b= .179$, $p<.001$), but this effect is not significant in the change model ($b= .095$, $p>.05$). Conversely, the association between risk orientation and depressive symptoms is curvilinear among the female sample. Initial increases in risk orientation reduce depressive symptoms ($b= -.989$, $p<.05$), but further increases in risk orientation increase depressive symptoms among females ($b= .042$, $p<.01$). The effect of the initial increase in depressive symptoms is reduced to non-significant in the change model for females ($b= -.692$, $p>.05$). Table 4b also shows significant race differences in depressive symptoms between African American and white males. Among males, African Americans have significantly higher depressive symptoms in the full model ($b= 1.092$, $p<.05$) and in the change model ($b= 1.154$, $p<.01$). There is no significant difference in depressive symptoms between Latino and white

males (*b*= -.056, *p*>.05 in the full model and *b*= -.065, *p*>.05 in the change model). No

race/ethnic differences in depressive symptoms exist among females.

Table 4a: Risk Orientation (T2) Regressed on Background Characteristics by Gender.

	Males N= 741				Females N= 742			
	b	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Social Status								
African American (1=Yes)[A]	-.633*	.306	-.366	.265	-.697*	.279	-.219	.253
Latino (1=Yes)[A]	-.250	.330	-.351	.284	.375	.333	-.223	.299
Child and Adolescent Controls								
Behavior Problems Index	.008*	.004	.004	.003	.002	.004	.004	.003
Home Observation Scale	-.005	.005	-.004	.004	-.011*	.005	-.008	.004
Mother's Educational Attainment	-.000	.049	-.038	.042	.020	.050	-.005	.044
Poverty Status (1=Yes)	-.380	.221	-.284	.191	-.095	.211	-.180	.189
Lived in the Central City (1=Yes)	-.325	.245	-.171	.211	.019	.251	.063	.225
Sociodemographics								
Age (Years)	-.028	.046	-.012	.040	-.033	.048	-.007	.043
Household Income (Logged)	.105	.066	.066	.057	.061	.037	.050	.033
Educational Attainment (Years)	-.278***	.062	-.198***	.054	-.103	.068	-.029	.061
Lives in the Central City (1=Yes)	-.184	.226	-.068	.195	.105	.212	.024	.190
Perceived Neighborhood Disorder	.133***	.030	.096***	.026	.044	.031	.027	.028
Psychosocial Resources								
Self-esteem	-.063*	.025	-.018	.022	-.044*	.022	.003	.020
Personal Sense of Mastery	.050	.035	.042	.030	-.022	.033	-.012	.029
Time 1 Control								
Risk Orientation (T1)	----	----	.485***	.031	----	----	.438***	.033
Intercept	17.388***	1.472	8.711***	1.382	17.010***	1.392	7.756***	1.426
R-Square	.118		.344		.041		.230	

Notes:

*p<.05. **p<.01. ***p<.001.

[A] Reference category is white.

Table 4b: Depressive Symptoms (T2) Regressed on Risk Orientation and Selected Variables by Gender.

	Males N= 741				Females N= 742			
	b	SE	b	SE	b	SE	b	SE
Risk Orientation								
Risk Orientation (T1)	.179 ***	.052	.095	.050	-.989 *	.386	-.692	.370
Risk Orientation (T1)^2	N.S.	N.S.	N.S.	N.S.	.042 **	.013	.028 *	.013
Social Status								
African American (1=Yes)[A]	1.092 *	.439	1.154 **	.415	.615	.426	.366	.407
Latino (1=Yes)[A]	-.056	.466	-.065	.440	-.139	.497	-.224	.474
Child and Adolescent Controls								
Behavior Problems Index	.010	.005	.008	.005	.016 **	.005	.014 **	.005
Home Observation Scale	.011	.007	.010	.006	-.004	.007	-.004	.007
Mother's Educational Attainment	.005	.069	-.059	.066	-.003	.074	-.027	.071
Poverty Status (1=Yes)	.612 *	.312	.462	.296	-.169	.315	-.291	.301
Lived in the Central City (1=Yes)	-.619	.347	-.757 *	.328	.753 *	.374	.770 *	.357
Sociodemographics								
Age (Years)	-.075	.066	-.097	.062	.006	.073	-.048	.070
Household Income (Logged)	.205 *	.094	.239 **	.089	-.012	.056	.017	.054
Educational Attainment (Years)	-.038	.089	-.015	.084	-.088	.102	-.052	.097
Lives in the Central City (1=Yes)	-.325	.319	-.291	.301	-.408	.316	-.354	.302
Perceived Neighborhood Disorder	.137 **	.043	.064	.041	.218 ***	.046	.185 ***	.044
Psychosocial Resources								
Self-esteem	-.090 *	.036	-.045	.034	-.151 ***	.035	-.082 *	.034
Personal Sense of Mastery	.010	.050	.047	.047	-.024	.049	-.020	.047
Risk-Taking Behaviors								
Prior Heavy Drinker (1=Yes)	.289	.275	.251	.260	.794 **	.283	.744 **	.270
Early Sexual Initiation (1=Yes)	-.341	.351	-.313	.332	.319	.392	.230	.374
Ever Smoked Cigarettes (1=Yes)	.670 *	.306	.540	.289	-.018	.307	-.046	.293
Ever Used Illicit Drugs (1=Yes)	.487	.302	.448	.285	.347	.305	.270	.292
Time 1 Control								
Depressive Symptoms (T1)	----	----	.340 ***	.036	----	----	.287 ***	.034
Intercept	.260	2 .274	-.429	2 .150	12.860 ***	3 .791	9.242 *	3 .641
R-Square	.097		.193		.160		.235	

Notes:

*p<.05. **p<.01. ***p<.001.

[A] Reference category is white.

Table 4c: Number of Drinks per Occasion (T2) Regressed on Risk Orientation and Selected Variables by Gender.

	Males N= 741				Females N= 742			
	b	SE	b	SE	b	SE	b	SE
Risk Orientation								
Risk Orientation (T1)	.212 ***	.056	.211 ***	.055	-.026	.047	-.048	.047
Risk Orientation (T1)^2	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
Social Status								
African American (1=Yes)[A]	-1.32 **	0.47	-1.25 **	0.47	-0.5	0.37	-0.48	0.36
Latino (1=Yes)[A]	.547	.503	-.541	.500	-.406	.430	-.418	.425
Child and Adolescent Controls								
Behavior Problems Index	.007	.005	.007	.005	-.002	.005	-.000	.005
Home Observation Scale	-.005	.007	-.006	.007	-.005	.006	-.008	.006
Mother's Educational Attainment	-.014	.075	-.010	.074	-.031	.064	-.024	.063
Poverty Status (1=Yes)	.299	.337	.339	.335	.249	.271	.180	.269
Lived in the Central City (1=Yes)	-.537	.374	-.472	.372	-.039	.323	-.006	.319
Sociodemographics								
Age (Years)	-.011	.071	-.024	.071	-.026	.063	-.006	.063
Household Income (Logged)	.127	.102	.126	.101	-.047	.048	-.048	.048
Educational Attainment (Years)	-.345 ***	.096	-.331 ***	.095	-.311 ***	.088	-.268 **	.087
Lives in the Central City (1=Yes)	.071	.344	.031	.341	.097	.273	.116	.270
Perceived Neighborhood Disorder	-.037	.046	-.042	.046	.065	.040	.068	.039
Psychosocial Resources								
Self-esteem	.028	.039	.033	.038	-.015	.029	-.022	.029
Personal Sense of Mastery	.094	.054	.086	.053	.062	.043	.055	.042
Risk-Taking Behaviors								
Prior Heavy Drinker (1=Yes)	.729 *	.297	-.381	.438	1.091 ***	.245	.137	.328
Early Sexual Initiation (1=Yes)	.021	.379	-.135	.379	-.526	.339	-.588	.335
Ever Smoked Cigarettes (1=Yes)	.070	.330	.112	.328	-.015	.264	-.080	.261
Ever Used Illicit Drugs (1=Yes)	-.086	.326	-.161	.324	.755 **	.264	.655 *	.262
Time 1 Control								
Quantity of Alcohol Consumption (T1)	----	----	.193 ***	.056	----	----	.216 ***	.050
Intercept	1.199	2 .545	1.070	2 .437	5.545 **	2 .092	6.129 **	2 .072
R-Square	.093		.107		.071		.093	

Notes:

*p<.05. **p<.01. ***p<.001.

[A] Reference category is white.

The quantity of alcohol consumption among males and females is illustrated in Table 4c.
Although risk orientation does not have a curvilinear relationship with the number of drinks
consumed per occasion among males or females, there is a significantly positive linear effect for

males. Among males, increased risk orientation increases the number of drinks consumed per occasion by nearly one-quarter of a drink ($b= .212, p<.001$). This effect is stable even when controlling for a Time 1 measure of the quantity of alcohol consumption ($b= .211, p<.001$). Among females, risk orientation does not significantly impact the number of drinks consumed per occasion ($b= -.026, p>.05$ in the full model and $b= -.048, p>.05$ in the change model). Though Latinos and whites consume similar amounts of alcohol in both gender groups, there is a race difference in alcohol consumption among African American and white males. Within the male subsample, African Americans drink significantly fewer alcoholic drinks per occasion than whites ($b= -1.318, p<.01$). This race difference among males remains significant in the change model ($b= -1.251, p<.01$).

Finally, the within-gender assessment of the association between risk orientation and frequency of alcohol consumption is illustrated in Table 4d. When the sample is split by gender, risk orientation is not related to frequency of alcohol consumption. Furthermore, there are no within-gender race/ethnic differences in frequency of alcohol consumption. Among males, the frequency of drinking is increased by such child and adolescent controls as the BPI score ($b= .006, p<.05$) and mother's educational attainment ($b= .074, p<.05$). Prior heavy drinking also increases the frequency of current drinking for this group ($b= .420, p<.01$). Among females, the frequency of drinking increases with mother's educational attainment when the respondent was a child or adolescent ($b= .082, p<.05$), the young woman's personal sense of mastery ($b= .076, p<.05$), and such risk-taking behaviors as prior heavy drinking ($b= .458, p<.01$) and having ever used illicit drugs ($b= .393, p<.05$).

Table 4d: Frequency of Alcohol Consumption (T2) Regressed on Risk Orientation and Selected Variables by Gender.

	Males N= 741				Females N= 742			
	b	SE	b	SE	b	SE	b	SE
Risk Orientation								
Risk Orientation (T1)	.035	.027	.025	.026	.005	.029	-.011	.028
Risk Orientation (T1)^2	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
Social Status								
African American (1=Yes)[A]	.114	.226	.020	.219	-.179	.224	-.235	.219
Latino (1=Yes)[A]	-.319	.240	-.362	.233	-.115	.262	-.231	.256
Child and Adolescent Controls								
Behavior Problems Index	.006 *	.003	.004	.003	-.002	.003	-.002	.003
Home Observation Scale	.005	.003	.003	.003	.002	.004	.002	.004
Mother's Educational Attainment	.074 *	.036	.059	.035	.082 *	.039	.070	.038
Poverty Status (1=Yes)	.104	.161	.137	.156	.075	.165	.128	.162
Lived in the Central City (1=Yes)	-.076	.179	.018	.174	-.082	.197	-.063	.192
Sociodemographics								
Age (Years)	.017	.034	-.048	.034	.026	.038	-.027	.038
Household Income (Logged)	-.039	.049	-.037	.047	.012	.029	.014	.029
Educational Attainment (Years)	-.008	.046	-.022	.044	-.014	.054	-.016	.052
Lives in the Central City (1=Yes)	.059	.164	.057	.159	.173	.167	.128	.163
Perceived Neighborhood Disorder	-.026	.022	-.025	.021	.002	.024	.008	.024
Psychosocial Resources								
Self-esteem	.018	.018	.016	.018	-.031	.018	-.032	.017
Personal Sense of Mastery	.009	.026	.011	.025	.076 *	.026	.065 *	.025
Risk-Taking Behaviors								
Prior Heavy Drinker (1=Yes)	.420 **	.142	.107	.145	.458 **	.149	.096	.157
Early Sexual Initiation (1=Yes)	.122	.181	.084	.175	.127	.206	.158	.201
Ever Smoked Cigarettes (1=Yes)	.053	.158	-.026	.153	-.026	.161	-.177	.159
Ever Used Illicit Drugs (1=Yes)	.055	.155	-.037	.151	.393 *	.161	.339 *	.157
Time 1 Control								
Frequency of Alcohol Consumption (T1)	----	----	.271 ***	.039	----	----	.246 ***	.040
Intercept	2.395 *	1 .171	3.551 **	1 .147	1.908	1 .275	2.889 *	1 .254
R-Square	.022		.081		.036		.083	

Notes:

*p<.05. **p<.01. ***p<.001.

[A] Reference category is white.

Reciprocal Effects

Figures 4, 5, and 6 illustrate the results of structural equation models testing reciprocal effects between risk orientation and depressive symptoms (Figure 4), quantity of alcohol consumption (Figure 5), and frequency of alcohol consumption (Figure 6) among the pooled sample. Though only a few key independent and control variables are illustrated in the figures, each figure notes which covariates are controlled but not represented in the figure. Figures 7, 8, and 9 show the results of testing the reciprocal effects using multi-group SEM across race/ethnicity. For these illustrations, unstandardized coefficients and standard errors appear in regular type for African Americans, in a solid box for Latinos, and in a dotted box for whites as noted. Figures 10, 11, and 12 illustrate multi-group SEM results across gender status. For these illustrations, unstandardized coefficients and standard errors appear in a solid box for males and in a dotted box for females.

Figure 4 demonstrates that risk orientation and depressive symptoms have a reciprocal relationship net of risk-taking behaviors (Hypothesis 8 supported). Risk orientation increases depressive symptoms ($b= .289$, $p<.001$) while depressive symptoms simultaneously increases risk orientation ($b= .158$, $p<.001$). African Americans have higher depressive symptoms ($b= .768$, $p<.01$) but similar levels of risk orientation ($b= -.326$, $p>.05$) compared to whites. Latinos and whites do not differ in either depressive symptoms ($b= -.119$, $p>.05$) or risk orientation ($b= -.250$, $p>.05$). Gender is significantly related to both outcomes. Males score significantly lower on depressive symptoms ($b= -.775$, $p<.001$), but higher on risk orientation ($b= .849$, $p<.001$) than females. Finally, of the risk-taking behaviors included in the model, only prior heavy drinking ($b= .494$, $p<.01$) and having ever smoked cigarettes ($b= .393$, $p<.01$) significantly increase depressive symptoms.
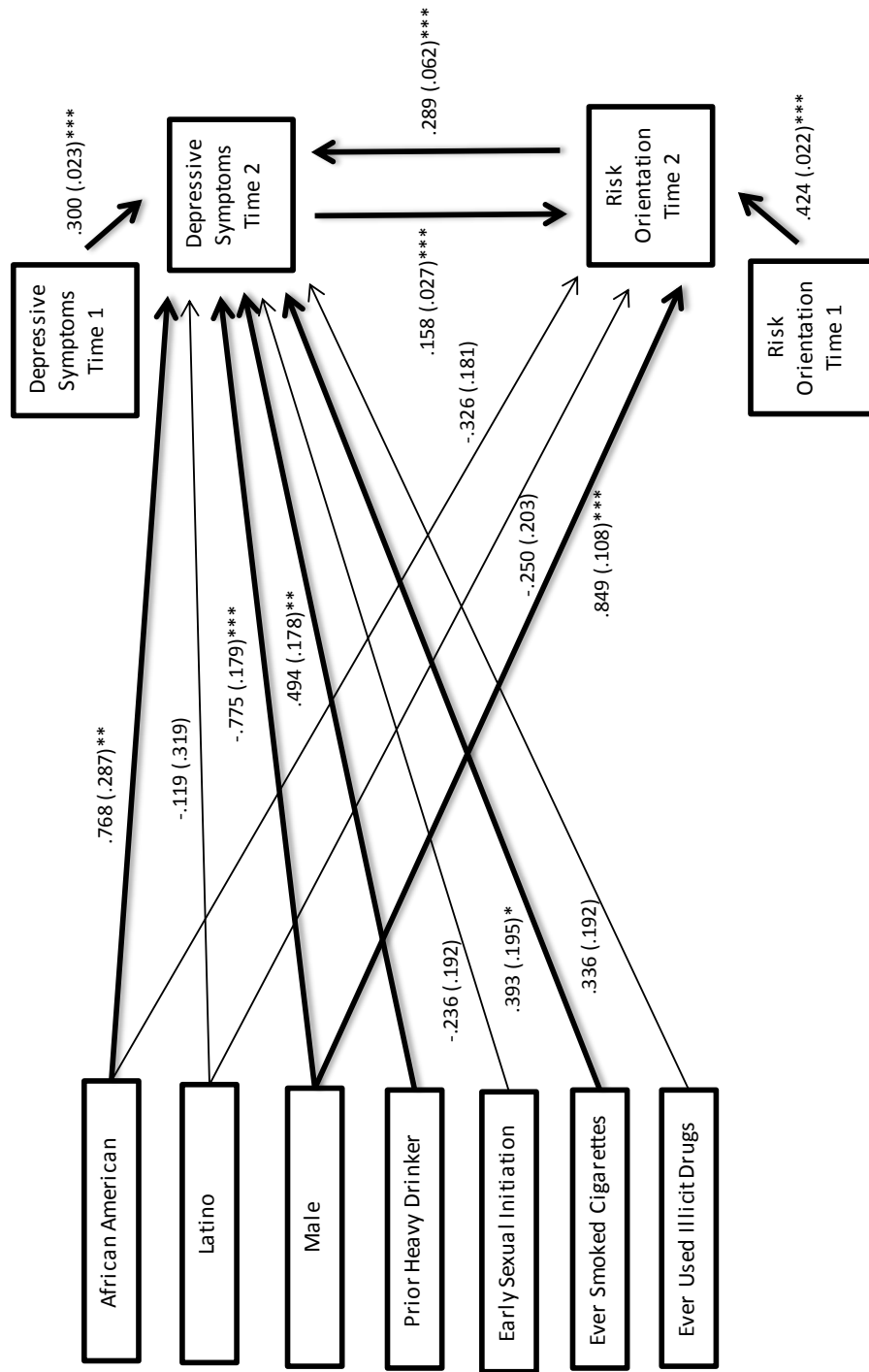
Figure 4. SEM Results Testing the Reciprocal Relationship between Risk Orientation and Depressive Symptoms among the Pooled Sample (N= 1,483).

Notes:

Numbers represent unstandardized coefficients with standard errors in parentheses.

Fit Indices: *Bentler's CFI* = .99; *Bentler's NFI* = .99; χ^2 :*df ratio* = 4.74:1, *p* <.001.

The models predicting depressive symptoms and risk orientation also control for child and adolescent controls, sociodemographics, and psychosocial resources.
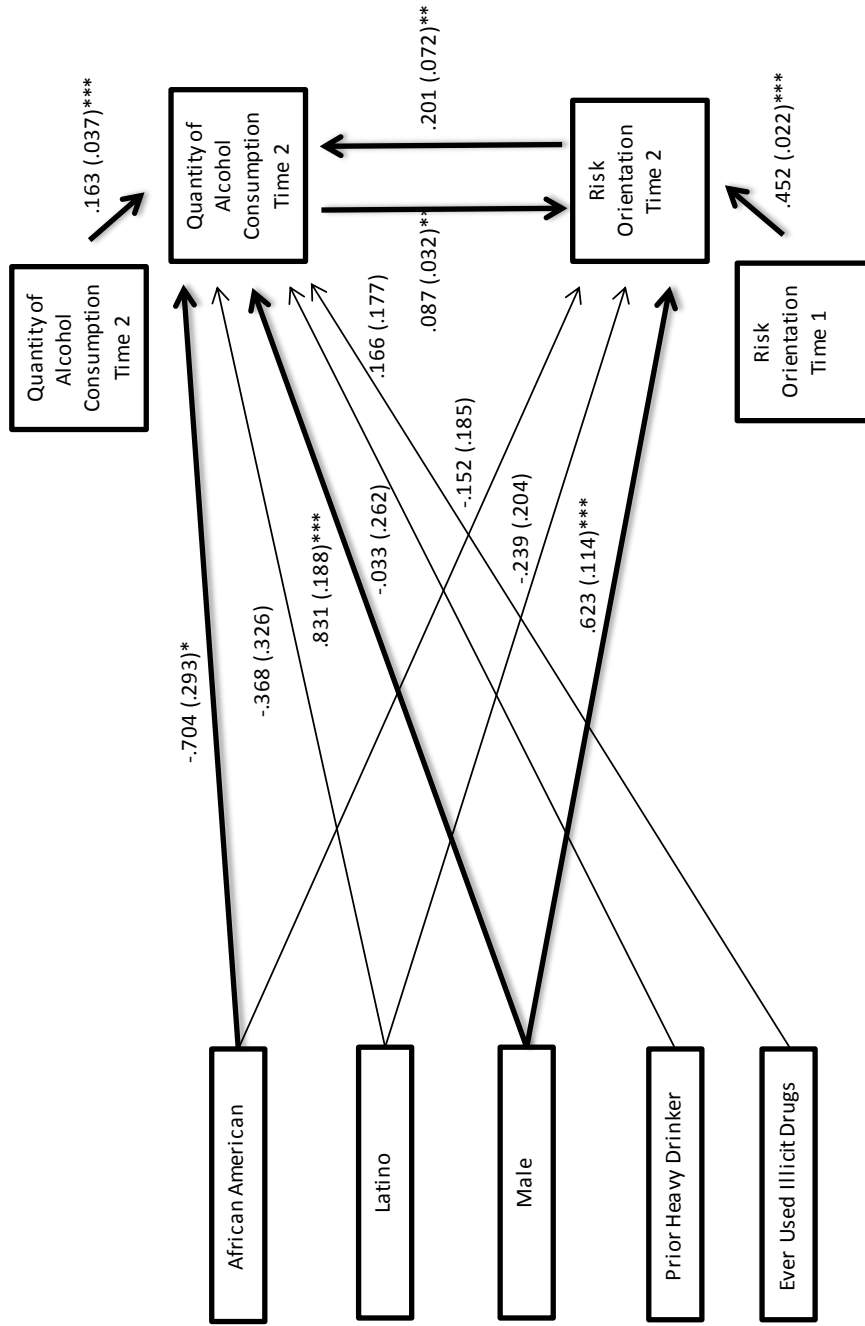
95

.163 (.037)***

.201 (.072)**

.452 (.022)***

.087 (.032)*

.166 (.177)

-.704 (.293)*

-.368 (.326)

.831 (.188)***

-.033 (.262)

-.152 (.185)

-.239 (.204)

.623 (.114)***

Quantity of Alcohol Consumption Time 2

Quantity of Alcohol Consumption Time 2

Risk Orientation Time 2

Risk Orientation Time 1

African American

Latino

Male

Prior Heavy Drinker

Ever Used Illicit Drugs

Figure 5. SEM Results Testing the Reciprocal Relationship between Risk Orientation and Quantity of Alcohol Consumption among the Pooled Sample (N= 1,483).

Notes:

Numbers represent unstandardized coefficients with standard errors in parentheses.

Fit Indices: *Bentler's CFI*= .99; *Bentler's NFI* = .99; χ^2 :*df ratio* = 5:1, *p* <.01.

The models predicting alcohol consumption and risk orientation also control for child and adolescent controls, sociodemographics, and psychosocial resources.

Figure 5 shows that there are also significant reciprocal effects between risk orientation

and the quantity of alcohol consumed per occasion (Hypothesis 9 supported). Risk orientation

increases alcohol consumption net of risk-taking behaviors ($b= .201$, $p<.01$), and alcohol

consumption increases risk orientation ($b= .087$, $p<.01$). African Americans drink fewer drinks

per occasion than whites ($b= -.704$, $p<.05$), but have similar levels of risk orientation ($b= -.152$,

$p>.05$). Again, Latinos and whites do not significantly differ on either outcome ($b= -.368$, $p>.05$

for alcohol consumption and $b= -.239$, $p>.05$ for risk orientation compared to whites). Males

consume significantly more drinks than females ($b= .831$, $p<.001$) and have higher risk

orientation than their female counterparts ($b= .623$, $p<.001$). Neither prior heavy drinking ($b= -.033$, $p>.05$) nor ever using illicit drugs ($b= .166$, $p>.05$) is associated with alcohol consumption

net of risk orientation.

Figure 6 shows the relationship between the frequency of drinking and risk orientation at

Time 2. Here, the association between the outcomes is unidirectional among the pooled sample

(Hypothesis 10 not supported). While the frequency of drinking increases risk orientation among

youth ($b= .331$, $p<.001$), risk orientation does not simultaneously affect the frequency of

drinking ($b= .019$, $p>.05$). The only significant covariate illustrated in the figure is gender.

Males drink more frequently ($b= .491$, $p<.001$) and have higher risk orientation ($b= .533$,

$p<.001$) than their female counterparts. Race/Ethnicity does not significantly affect either

outcome in this model, and risk-taking behaviors do not have independent effects on the

frequency of drinking.

Figures 7 through 12 examine reciprocal effects by social status. Though it was

hypothesized that each of the four risk-taking behaviors would significantly impact all three

outcomes of interest, only prior heavy drinking and having ever used illicit drugs had consistent
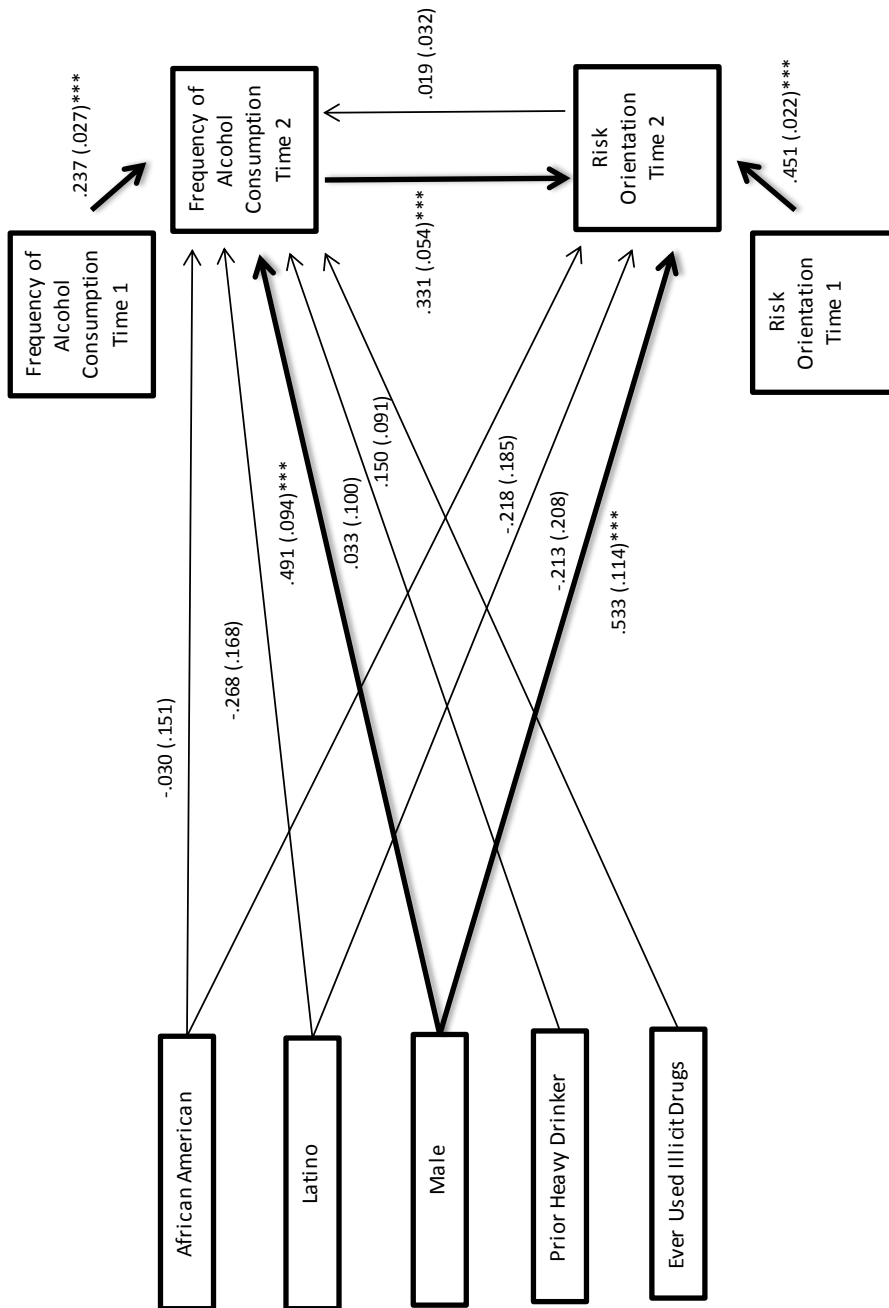
Figure 6. SEM Results Testing the Reciprocal Relationship between Risk Orientation and Frequency of Alcohol Consumption among the Pooled Sample (N=1,483).

Notes:

Numbers represent unstandardized coefficients with standard errors in parentheses.

Fit Indices: *Bentler's CFI = .99; Bentler's NFI = .99; χ^2 :df ratio = 4.03:1, p <.05.*

The models predicting alcohol consumption and risk orientation also control for child and adolescent controls, sociodemographics, and psychosocial resources.

effects. Furthermore, structural equation models for the alcohol use outcomes fit the data better when early sexual initiation and having ever smoked cigarettes were pruned from the models. In Figure 7, the reciprocity between depressive symptoms and risk orientation is assessed by
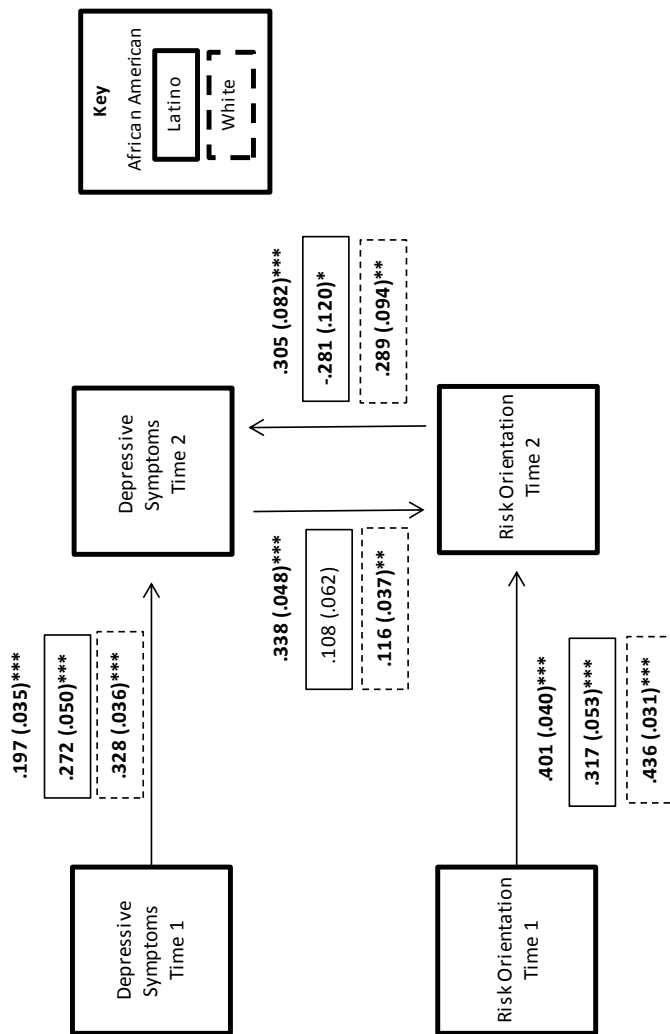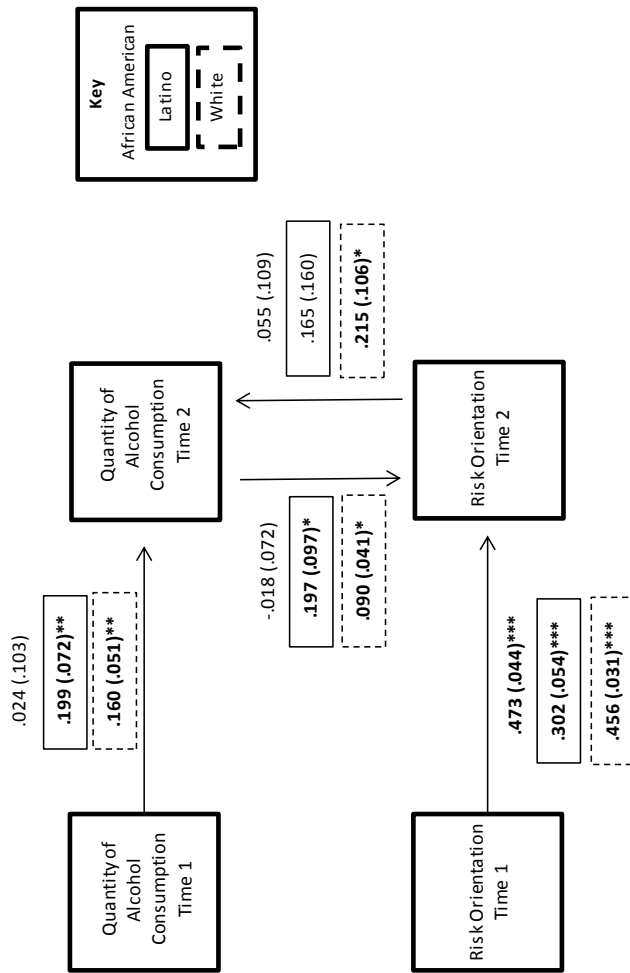
Figure 7. Multiple-Group SEM Results Testing the Reciprocal Relationship between Risk Orientation and Depressive Symptoms.

Notes:
Numbers represent unstandardized coefficients with standard errors in parentheses. Coefficients for African Americans (N=469) are in regular type; coefficients for Latinos (N= 343) are in a solid box; coefficients for whites (N= 671) are in a dotted box. Significant coefficients are in bold.
Fit Indices: *Bentler's CFI* = .99; *Bentler's NFI* = .99; $\chi2$:df ratio = 1.41:1, p >.05.
The models predicting depressive symptoms and risk orientation also control for child and adolescent controls, sociodemographics, and psychosocial resources.

race/ethnicity. The association between the two is mutually positive for African Americans and whites. Among African Americans, risk orientation increases depressive symptoms (b= .305, p<.001) and depressive symptoms increase risk orientation (b= .338, p<.001). Among whites, risk orientation (b= .289, p<.01) and depressive symptoms (b= .116, p<.01) simultaneously

Figure 8. Multiple-Group SEM Results Testing the Reciprocal Relationship between Risk Orientation and Quantity of Alcohol Consumption.

Notes:
Numbers represent unstandardized coefficients with standard errors in parentheses. Coefficients for African Americans (N= 469) are in regular type; coefficients for Latinos (N= 343) are in a solid box; coefficients for whites (N= 671) are in a dotted box. Significant coefficients are in bold.
Fit Indices: *Bentler's CFI = .99; Bentler's NFI = .99; χ^2:df ratio = 1.52:1, p >.05.*
The models predicting alcohol consumption and risk orientation also control for child and adolescent controls, sociodemographics, and psychosocial resources.

affect one another. Conversely, the relationship is unidirectional for Latino youth. Here, only

risk orientation affects depressive symptoms, and not the other way around. Furthermore, unlike

100

the positive effect for African Americans and whites, this relationship is negative for Latinos. Greater risk orientation decreases depressive symptoms ($b= -.281$, $p<.05$).

Figure 8 looks at the reciprocal effects between risk orientation and the number of drinks consumed per occasion across race/ethnic groups. Though this relationship was reciprocal in the pooled sample, it can be seen here that the reciprocity only exists for whites. Risk orientation increases quantity of alcohol consumption ($b= .215$, $p<.05$) while quantity of alcohol consumption increases risk orientation ($b= .090$, $p<.05$). Among Latinos, the relationship from alcohol consumption to risk orientation is significant and positive ($b= .197$, $p<.05$), but the association is not reciprocal. There is no association between quantity of drinks consumed and risk orientation for African Americans. In Figure 9, the association is assessed for the frequency of drinking. Here, the relationship is reciprocal for Latino youth, but unidirectional for African Americans and white youth. Frequency of drinking increases risk orientation among Latinos ($b= .276$, $p<.05$) and whites ($b= .476$, $p<.001$), whereas risk orientation decreases frequency of drinking among Latinos ($b= -.201$, $p<.01$) and African Americans ($b= -.103$, $p<.05$).

The association between risk orientation and depressive symptoms is examined by gender in Figure 10. This relationship is reciprocal for both males and females. Risk orientation increases depressive symptoms for males ($b= .191$, $p<.05$) and females ($b= .303$, $p<.01$), while at the same time depressive symptoms increases risk orientation among males ($b= .213$, $p<.001$) and females ($b= .103$, $p<.01$). Reciprocal effects between risk orientation and the quantity of drinks consumed per occasion across gender status are illustrated in Figure 11. Here, the relationship is only reciprocal for males such that risk orientation increases the number of drinks
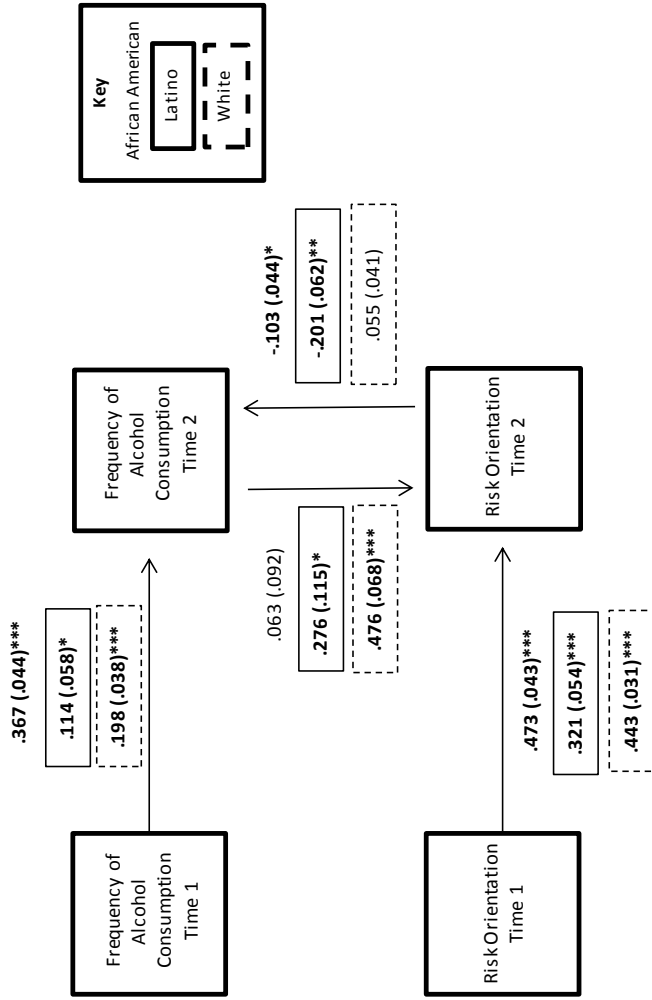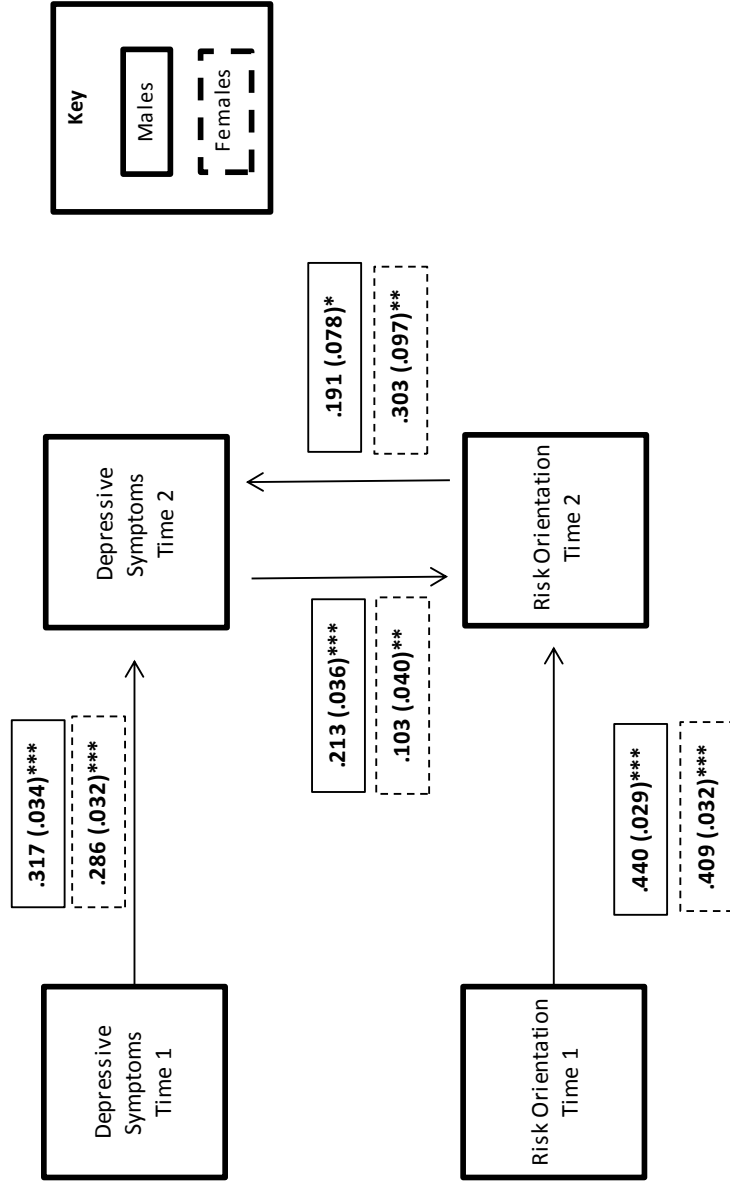
Figure 9. Multiple-Group SEM Results Testing the Reciprocal Relationship between Risk Orientation and Frequency of Alcohol Consumption.

Notes:
Numbers represent unstandardized coefficients with standard errors in parentheses. Coefficients for African Americans (N= 469) are in regular type; coefficients for Latinos (N= 343) are in a solid box; coefficients for whites (N=671) are in a dotted box. Significant coefficients are in bold.

Fit Indices: *Bentler's CFI = .99; Bentler's NFI = .99; χ2:df ratio = 1.17:1, p <.05.*

The models predicting alcohol consumption and risk orientation also control for child and adolescent controls, sociodemographics, and psychosocial resources.
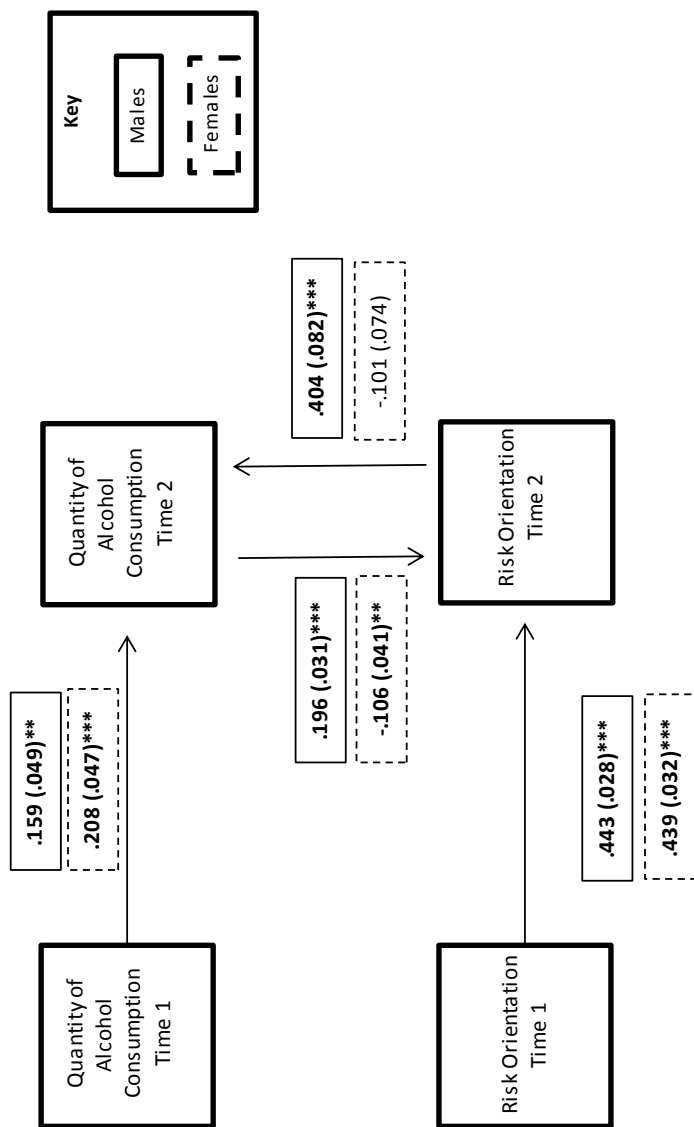
Figure 10. Multiple-Group SEM Results Testing the Reciprocal Relationship between Risk Orientation and Depressive Symptoms for males and females.

Notes:
Numbers represent unstandardized coefficients with standard errors in parentheses. Coefficients for males (N= 741) are in a solid box; coefficients for females (N= 742) are in a dotted box. Significant coefficients are in bold.

Fit Indices: *Bentler's CFI = .99; Bentler's NFI = .99; χ2:df ratio = 3.71:1, p >.05.*

The models predicting depressive symptoms and risk orientation also control for child and adolescent controls, sociodemographics, and psychosocial resources. Additionally, the model for depressive symptoms controls for risk-taking behaviors.

consumed ($b= .404$, $p<.001$) and the number of drinks consumed increases risk orientation ($b= .196$, $p<.001$). Among females, the relationship is only significant from alcohol consumption to risk orientation. And, unique from their male counterparts, the association is negative ($b= -.106$, $p<.01$). Lastly, Figure 12 shows the results when the frequency of drinking and risk orientation are simultaneously regressed on one another across gender status. While frequency of drinking increases risk orientation among males ($b= .380$, $p<.001$) and females ($b= .172$, $p<.05$), the relationship is not reciprocal for either group.

Figure 11. Multiple-Group SEM Results Testing the Reciprocal Relationship between Risk Orientation and Quantity of Alcohol Consumption for males and females.

Notes:
Numbers represent unstandardized coefficients with standard errors in parentheses. Coefficients for males (N=741) are in a solid box; coefficients for females (N=742) are in a dotted box. Significant coefficients are in bold.
Fit Indices: *Bentler's CFI = .99; Bentler's NFI = .99; χ2:df ratio = 5:1, p <.001.*
The models predicting alcohol consumption and risk orientation also control for child and adolescent controls, sociodemographics, and psychosocial resources. Additionally, the model for alcohol consumption controls for risk-taking behaviors.

105

Key

Males

Females

Frequency of Alcohol Consumption Time 1

Frequency of Alcohol Consumption Time 2

Risk Orientation Time 1

Risk Orientation Time 2

.240 (.037)***
.228 (.039)***

.380 (.072)***
.172 (.080)*

.043 (.040)
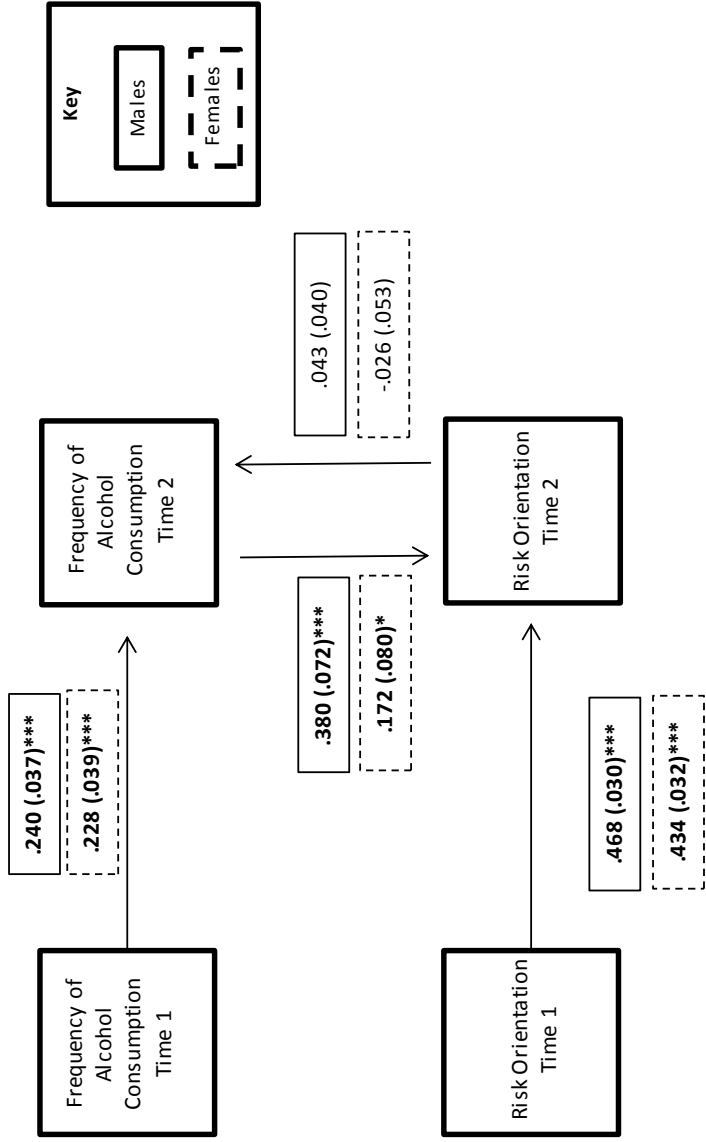-.026 (.053)

.468 (.030)***
.434 (.032)***

Figure 12. Multiple-Group SEM Results Testing the Reciprocal Relationship between Risk Orientation and Frequency of Alcohol Consumption for males and females.

Notes:
Numbers represent unstandardized coefficients with standard errors in parentheses. Coefficients for males (N=741) are in a solid box; coefficients for females (N= 742) are in a dotted box. Significant coefficients are in bold.
Fit Indices: *Bentler's CFI* = .99; *Bentler's NFI* = .99; $\chi2$:*df ratio* = 5:1, *p* <.001.
The models predicting alcohol consumption and risk orientation also control for child and adolescent controls, sociodemographics, and psychosocial resources. Additionally, the model for alcohol consumption controls for risk-taking behaviors.

CHAPTER V

CONCLUSIONS AND DISCUSSION

There were three main goals of this dissertation. First, I examine how risk orientation is shaped by age as well as social status and other background characteristics. Second, I tested the challenge model of resilience for mental health and substance use outcomes. Third, I examined whether risk orientation and mental health and alcohol use outcomes have a reciprocal relationship. I further assessed whether the challenge model of resilience and the reciprocal effects between risk orientation and well-being varied across social status. In this chapter, I first discuss the findings of the analyses from a sociological viewpoint. The summary of findings is organized according to each research question presented in chapter 2. Next, I discuss the implications of these findings for the mental health and well-being of youth. I then describe the limitations of this dissertation and conclude with a summary of this study.

The Shaping of Risk Orientation

You will recall that my first research question was: *Do youth "age out" of risk orientation?* Unlike the age pattern researchers consistently find when examining risk-taking behaviors, risk orientation does not have a curvilinear association with age among the youth in this sample. The only instance where age impacted risk orientation was among African Americans, where I found that risk orientation decreases with age. My second research question was: *Is there variation in the shaping of risk orientation across race/ethnicity and gender*? Both at the bivariate and multivariate level, race and gender are related to risk orientation. African

Americans consistently have lower risk orientation compared to their peers and males consistently have higher risk orientation than their female counterparts. However, Latino youth have similar levels of risk orientation compared to whites. This finding is consistent at the bivariate and multivariate levels, as well as in pooled sample analyses and across subgroups. In chapter 1, I argued that it might be possible that marginalized groups (e.g., African Americans and females) have higher risk orientation than their dominant group peers. Their lower participation in risk-taking behaviors (e.g., heavy drinking) would in that case be a result of the greater social control of minority youth (Bachman et al. 1991; Siebert et al. 2003; Weaver et al. 2011; Wu et al. 2011). However, this research shows that, similar to the literature on social status and risk-taking behaviors, marginalized groups have similar or lower levels of risk orientation than their dominant group peers.

Though I was not able to control for specific aspects of the social experience (e.g., racial socialization in the family), it is possible that there is something happening within African American families that lowers risk orientation among these youth. There may also be aspects of the African American experience not captured here (e.g., police harassment) that influences their lower risk orientation compared to whites. Risk orientation has both positive and negative consequences for well-being as described in more detail below. Therefore, there may be some benefits to well-being that African American youth miss out on due to their lower risk orientation and some consequences white youth are at greater risk for because of their higher risk orientation.

Another important finding is that some childhood/adolescent factors matter in shaping risk orientation in young adulthood net of other controls. Behavior problems in childhood and adolescence are related to higher risk orientation in young adulthood. Conversely, quality of the

home environment during these formative years is related to lower risk orientation in young adulthood. These child and adolescent factors had direct, independent, and robust effects on risk orientation. They were not mediated by other mechanisms (e.g., psychosocial resources). A closer look at these covariates across social status gives a more detailed illustration of their impact. When the sample is split by race/ethnicity, the quality of the home environment has independent effects on risk orientation in young adulthood. However, it is only a significant predictor among whites and Latinos. For Latino youth, quality of the home environment in childhood/adolescence is related to higher levels of risk at the onset of risk orientation in young adulthood. For white youth, the opposite is true. For whites, quality of the home environment is related to lower risk orientation, but only when taking previous levels of risk orientation into consideration. These race/ethnic differences in the way the home environment in childhood/adolescence impacts risk orientation in young adulthood will be discussed further below.

Still another story comes to light when examining gender subgroups of the sample. Behavior problems in childhood and adolescence is associated with higher risk orientation for males, while quality of the home environment is associated with lower risk orientation for females. Here, it can clearly be seen that risk factors are a more significant predictor of increased risk orientation for males while protective factors are a more significant predictor of decreased risk orientation for females. While I cannot capture elements of gender socialization or gender identity salience, these patterns suggest that socialization practices shape risk orientation. As discussed in chapter 2, boys and men are socialized to be risk-takers while girls and women are more socially controlled and protected (Feder, Levant, and Dean 2007; Morrongiello and Hogg 2004).

The Challenge Model of Resilience

My third research question addressed the challenge model hypothesis of Hollister-Wagner et al.'s (2001) risk and resilience framework. I asked: *Is there a curvilinear relationship between risk orientation and mental health and substance use outcomes?* I tested the challenge model hypothesis across different outcomes. Among the pooled sample, the only support for a curvilinear relationship between risk orientation and well-being was in examining depressive symptoms. Controlling for child and adolescent factors, sociodemographics, psychosocial resources, and risk-taking behaviors, the initial increase in risk orientation is associated with a decrease in depressive symptoms while further increases in risk orientation have deleterious consequences for depressive symptoms. On the one hand, some risk orientation might be necessary for youth to make friends, develop a healthy self-concept, and maintain their mental health (Ingram and Price 2009; Noam and Fischer 1996; Pearlin et al. 1981). On the other hand, higher levels of risk orientation might put youth in harm's way, damaging their mental health (Steinberg 2007).

Risk orientation did not have a curvilinear relationship with either alcohol use outcome among the pooled sample. For the quantity of alcohol consumption, the impact of risk orientation was positive and linear. Increased risk orientation is associated with consuming more alcoholic beverages per occasion. Similarly, increased risk orientation is associated with increased frequency of drinking net of child and adolescent factors, sociodemographics, and psychosocial resources. However, once controls for risk-taking behaviors are added, the positive effect of risk orientation on frequency of drinking is reduced to non-significant.

Social status patterns were revealed when I examined the challenge model hypothesis across groups. In the racial/ethnic subgroup analyses, I found that risk orientation is linearly and

110

positively associated with depressive symptoms for African Americans and whites, but not a significant predictor of depressive symptoms among Latinos. For African Americans and whites, this relationship is robust even controlling for a Time 1 measure of depressive symptoms. The gender subgroup analyses also reveal varying patterns. Among males, risk orientation significantly increases depressive symptoms. Among females, the relationship between risk orientation and depressive symptoms is curvilinear such that initial increases in risk have positive consequences for mental health but further increases in risk have negative consequences.

Next, I focused on the alcohol consumption outcomes by social status. Recall that in the pooled sample, the positive effect of risk orientation on quantity of alcohol consumption was robust across all models. However, when the racial/ethnic subgroups are analyzed, this association is only significant for whites. Risk orientation does not impact quantity of alcohol consumption for African Americans or Latinos. Furthermore, while risk orientation significantly increases the number of drinks consumed per occasion for males, it is not related to alcohol consumption among females. I also find that risk orientation does not impact frequency of drinking for any of the three race/ethnic groups. Before risk-taking behaviors are controlled for, there is a positive effect of risk orientation on frequency of drinking for whites, but in the full model the effect is reduced to non-significant. Moreover, risk orientation does not impact frequency of drinking among males or females net of other controls.

Reciprocal Effects

My fourth research question was: *Is there a reciprocal relationship between risk orientation and well-being?* I specifically tested whether this reciprocity varied across outcomes and by social status. I found that the relationship between risk orientation and depressive

symptoms is reciprocal. Risk orientation and depressive symptoms positively impact one another simultaneously. Similarly, the relationship between risk orientation and the number of drinks consumed per occasion was also reciprocal. Risk orientation increases quantity of drinking while quantity of drinking increases risk orientation. Conversely, rather than having a reciprocal relationship, frequency of drinking increases risk orientation but the reverse is not true.

When reciprocal effects are tested across race/ethnicity, differences in mental health and alcohol use processes are illuminated. For African Americans, the only reciprocal relationship is that between risk orientation and depressive symptoms. Neither relationship is significant when examining quantity of alcohol consumption among African Americans. Additionally, while their risk orientation decreases their frequency of drinking, frequency of drinking does not impact risk orientation among this group. For Latinos, there is reciprocity between risk orientation and frequency of drinking, but not for the other two outcomes. For this group, risk orientation decreases depressive symptoms and quantity of alcohol consumption increases risk orientation, but these associations are not reciprocal. For whites, both depressive symptoms and quantity of alcohol consumption have a reciprocal relationship with risk orientation. For this group, frequency of drinking positively impacts risk orientation, but risk orientation does not impact frequency of drinking.

Reciprocal effects between risk orientation and well-being were also tested across gender. Gender patterns are similar when examining depressive symptoms and frequency of drinking. For both groups, there are reciprocal effects between risk orientation and depressive symptoms, and a unidirectional effect of frequency of drinking on risk orientation. However, the two groups differ in the process underlying quantity of alcohol consumption. Females experience lowered

risk orientation from increased quantity of alcohol consumption. For males, the process is reciprocal and positive in both directions.

This gender difference in the association between risk orientation and quantity of alcohol consumption is most interesting. Males follow a pattern similar to what scholars have found regarding the impacts of risk-taking behaviors on well-being. That is, increased risk leads to negative consequences for well-being (Centers for Disease Control and Prevention 2012, 2012b; Hamilton, Martin and Ventura 2011; Ventura and Hamilton 2011). Contrary to their male counterparts, females do not experience the same negative consequences of risk orientation as it relates to their drinking habits, and actually experience lower risk orientation the more drinks they consume per occasion.

One explanation for this gendered difference is that females may express maturity and develop closer relationships with peers through drinking. Demant and Järvinen (2006) found that youth use drinking as a marker of maturity through which they seek to gain popularity among their peers. Boys and girls are socialized to interact with their peers differently. While males tend to develop a sense of independence and self-assertion from gender segregated play, girls become more interested in developing and maintaining close, interpersonal relationships (Leaper 1994; Martin and Fabes 2001; Serbin et al. 1994). Leaper (1994) maintains that these developments in childhood continue to have lasting effects into young adulthood. Therefore, drinking in young adulthood might make females feel more mature and more accepted by their peers, thereby decreasing their need to hold risky attitudes. For males, drinking might be an outlet in which they can express their independence and masculinity thereby increasing their risk orientation the more they drink. Future research on risk orientation and well-being should

analyze the effects of gender socialization (e.g., through gender ideology) on the gendered patterns in these processes.

Other Important Factors

Risk-Taking Behaviors. Although the main purpose of including risk-taking behaviors in my analyses was to examine the independent effects of risk orientation on well-being, I found that some risk-taking behaviors matter above and beyond risk orientation and other factors. Prior heavy drinking was a consistent predictor of well-being across the outcomes studied here. Prior heavy drinking significantly increases depressive symptoms, the number of drinks consumed per occasion, and frequency of drinking among youth. This risk-taking behavior is especially damaging to: mental health among whites and females; quantity of alcohol consumption among Latinos and whites as well as for both males and females; and frequency of drinking for all racial/ethnic and gender subgroups. Nearly one-third of the sample engaged in prior heavy drinking. Because it has consistently negative consequences for mental health and current alcohol consumption, efforts to decrease binge drinking among youth should be taken seriously. Suggestions for attacking this problem will be discussed further below.

Although illicit drug use did not predict depressive symptoms or the number of drinks consumed per occasion in the pooled sample, it does increase the frequency of drinking. This finding is particularly salient for frequency of drinking among Latinos and females, as well as it is related to consuming more alcohol per occasion among females. The other two risk-taking behaviors I examined were not nearly as important in predicting mental health and alcohol consumption among the youth in my sample. In the pooled sample, neither early sexual initiation nor cigarette use influences depressive symptoms, the number of drinks consumed, or

frequency of drinking. In fact, the only instance in which cigarette use influences well-being is in predicting depressive symptoms among African Americans and males. Likewise, early sexual initiation only predicts depressive symptoms significantly among African American youth. So while these risk-taking behaviors do not influence well-being in all contexts, they are important underlying mechanisms of mental health for some youth.

Taken together, the findings pertaining to risk-taking behaviors suggest that risk-taking behaviors do not operate the same across social status to influence mental health and well-being. Some risk-taking behaviors matter for mental health and well-being, but the way they matter varies by social status. This conclusion should be recognized as evidence that future scholars in this area should pay attention to both risk-taking behaviors and risk orientation in studying mental health and well-being among young adults.

Neighborhood Factors. The particularly interesting finding regarding neighborhood factors is that subjective neighborhood condition is more influential in shaping risk orientation and well-being than objective neighborhood location. Central city location did not have an independent impact on risk orientation, depressive symptoms, or either alcohol consumption outcome. This non-significant finding is consistent across race/ethnicity and gender. Conversely, perceived neighborhood disorder mattered in significant ways and for specific subgroups of the sample. In the pooled sample, perceived neighborhood disorder increases risk orientation and depressive symptoms. When the sample is split by race/ethnicity, I find that perceived neighborhood disorder is particularly significant in shaping 1) risk orientation among whites and males and 2) depressive symptoms among African Americans and whites as well as both males and females. The finding that youth's perceptions of their neighborhood influence

their well-being above and beyond objective location is consistent with other research (Christie-Mizell et al. 2003).

It could be that negative perceptions of their neighborhood foster a sense of normalcy for risk-taking among youth, thereby increasing their propensity toward risk. However, even if risk-taking is perceived to be normal in their community, it no doubt has negative consequences for their mental health. Perceived disorder might make youth feel unsafe, unstable, or exposed to harm in their neighborhood, thereby increasing their depressive symptoms. Interestingly enough, this process can be seen among both males and females. Research consistently finds that boys and men are more likely to have externalizing problems and girls and women are more likely to have internalizing problems (Christie-Mizell and Peralta 2009; Burnam et al. 1987; Karno et al. 1987; Myers et al. 1984; Robins et al. 1984; Simon 2002; see also Aneshensel et al. 1991). The same patterns were found in this dissertation, too, but I also find that perceived neighborhood disorder increases depressive symptoms for both males and females and has no effect on drinking outcomes. This finding alludes to the importance of finding community-level solutions to helping youth of all backgrounds develop good mental health. I will expand on this conclusion a bit more below.

Socioeconomic Status. As indicators of socioeconomic status, I controlled for household income and educational attainment in young adulthood. I also accounted for mother's educational attainment and poverty status in childhood/adolescence. Socioeconomic status in young adulthood contributes significantly to risk orientation. For example, household income increases risk orientation while educational attainment decreases risk orientation. Educational attainment also decreases the number of drinks youth consume per occasion. Mother's educational attainment and poverty status do not influence risk orientation, depressive

116

symptoms, or the number of drinks youth consume per occasion. However, mother's educational attainment when the youth was growing up has lasting effects on how frequently youth drink in young adulthood. The more education attained by the mother, the more frequently youth drink in young adulthood. When the sample is split by race/ethnicity, this finding appears to be a phenomenon that occurs among white youth in particular. It is a process that can be seen among both males and females.

Though poverty status in childhood/adolescence was not a significant predictor of risk or well-being in the pooled sample, some interesting findings can be seen when the sample is examined by social status. Poverty status decreases both the number of drinks consumed and the frequency of drinking among Latino youth. Although it does not impact their quantity of alcohol consumption, poverty status in their younger years actually increases the frequency of drinking among African Americans. Having lived in poverty does not impact the well-being of white youth. The results of this study demonstrate that not only are African American and Latino youth more likely to have lived in poverty when they were younger, but also that living in poverty has lasting effects on their well-being. At first glance, it might appear that poverty has positive consequences for Latino youth seeing as how it decreases their alcohol use in young adulthood. However, there are several indicators of well-being not examined here (e.g., violence and victimization, relationship quality, happiness) where consequences for Latino youth might be more detrimental. Using Aneshensel's (2005) argument, it would be erroneous to conclude that Latino youth who grew up in poverty are "well" simply because their poverty status does not increase their drinking behaviors in young adulthood. Instead, scholars should continue with this line of research and examine the effects of poverty on additional indicators of well-being among youth.

Intersectionality. This dissertation incorporated an intersectional approach by examining within-race/ethnic differences by gender and within-gender differences by race/ethnicity. I was also able to determine differential socioeconomic patterns by social status in my analyses. The results suggest that the intersection of race/ethnicity and gender is important in shaping well-being. There are two notable examples of an intersectional pattern to well-being in these data. First, I found that depressive symptoms are lower among males than females in almost every context. One exception of this finding is among Latinos when a Time 1 measure of depressive symptoms is included in the analysis. At the onset of depressive symptoms, Latino males have lower depressive symptoms than Latinas, but when prior depressive symptoms are accounted for, Latinos and Latinas do not differ in their current depressive symptoms. Second, results from the pooled sample suggest that males drink more drinks per occasion than females. A closer look at the intersection of race/ethnicity and gender shows that in the African American community, males and females do not differ in their quantity of alcohol consumption. These are two important patterns which could not have been detected without taking the intersection of race/ethnicity and gender seriously.

Implications of the Findings

An increase in risk-taking in adolescence and young adulthood relative to childhood and older adulthood has been consistent over time and across cohorts (Arnett 1999; Casey et al. 2010; Kessler et al. 2005; see also Silveri et al. 2004). It is a phenomenon which is not likely to change anytime soon. However, the results of this study suggest that 1) risk orientation is partly shaped by factors stemming from childhood/adolescence, 2) there are both benefits and consequences of risk for well-being, and 3) how risk relates to well-being varies by social status.

These conclusions have important implications for solutions which aim to improve mental health and well-being among youth. Namely, my research suggests that there is a need for trusted and respected adults to get involved, sports programs and other extracurricular activities might benefit youth, and well-being solutions should target youth early. These implications are discussed in more detail below.

Recall that in the first chapter, I discussed how researchers have ruled out the possibility that youth are irrational beings who fail to reason and use logic before acting. As I said in chapter 1, simply educating youth on the harms associated with risk-taking behaviors may not completely deter them from taking risks. Therefore, changes to the environment to which youth are exposed may have more lasting effects on their well-being. I would argue that schools, community centers, and even political institutions in the community have a responsibility for setting a good example for youth. These institutions offer an opportunity for adults to model healthy behaviors for youth. Teachers, principals, political leaders, and other mentors in the community can set a good example for youth by not engaging in such behaviors as binge drinking or smoking cigarettes. Creating an environment for youth where risk-taking behaviors are not normalized may help them develop good mental health and deter them from problematic substance use. By targeting social institutions rather than individual youth, this solution has the ability to affect youth of all backgrounds. Regardless of whether youth live in advantaged neighborhoods or come from lower socioeconomic strata, they are all exposed to social institutions where adults they respect can set a good example. Having trusted and respected adults to look up to has been an important influence on mental health, especially among African American males (Watkins, Walker, and Griffith 2010).

Not only can social institutions affect well-being among youth by providing an environment in which adults can model healthy behaviors, but also they can be used to help youth manage their risk orientation in ways that promote well-being. For instance, athletics might be one positive way in which youth can express their risk orientation and risk-taking behaviors. Some risk orientation is needed to play such contact sports as football and soccer, because there is the possibility of physical injury in sports. Sports offer youth the space to take some risks without necessarily damaging their mental health. Furthermore, having an activity with regular practices and competitions also gives youth fewer opportunities to engage in risk-taking behaviors, such as crime and delinquency (Cohen and Felson 1979; Felson 1987; Felson and Clarke 1998).

Finally, mental health and well-being are ongoing processes that are initially developed in childhood/adolescence and continue to be shaped by other factors in young adulthood. Risk orientation, an important underlying mechanism found to influence mental health and well-being in this study, is shaped in part by childhood and adolescent factors as life course scholars would argue (George 2007). Therefore, programs which seek to impact the well-being of young adults really need to start prevention efforts when children are as young as 4 years old and follow them as they transition through important life stages (e.g., into adolescence and then into young adulthood). Community centers might therefore develop programs for youth by age group to target young children, adolescents, and those transitioning into young adulthood. This approach would target children when they are young, and offer support and healthy development as they transition through important life stages.

Limitations and Summary

Though this study makes an important contribution to the literature on risk, social status, mental health, and alcohol use, there are some limitations which could improve research in this area. First, the sample analyzed here is representative of youth born to mothers who were between the ages of 21 and 29 when their children were first interviewed. It is possible that an examination of youth with older or younger mothers would result in different conclusions. Mental health and well-being patterns among youth may be different among samples where mothers are younger or older than these mothers due to having access to fewer or different resources available that aid in raising children.

Second, this study was carried out among a sample of African American, Latino, and white youth. Similar to other studies, there are too few youth of other race/ethnic backgrounds (e.g., Asian Americans, Native Americans) in the NLSY to appropriately analyze and find meaningful results. It is possible that youth of other racial/ethnic backgrounds have unique experiences that shape mental health and well-being processes. For example, research shows that Native Americans are at greater risk or smoking cigarettes, using alcohol, and illicit drug use and that Asian Americans exhibit the lowest prevalence of these behaviors (Bachman et al. 1991). These groups may have different attitudes about risk as well, which is likely to affect the relationship between risk orientation and well-being among these groups. Future studies should try to incorporate more racial groups in the examination of risk and well-being.

A third limitation of this study is that the salience of or meaning of racial/ethnic or gender identity is not captured. Identities are shaped through social interactions with others and offer a sense of belonging to a group (Burke et al. 2003; Stets and Serpe 2013; Wakefield and Hudley 2007). People tend to have multiple identities, but one identity may be more salient than another

(James 1890; Stets and Serpe 2013). While I have measured racial/ethnic and gender categorization in this study, I was not able to measure what race/ethnicity or gender actually means for these youth. In their review of studies that examine the influence of ethnic identity on youth well-being, Wakefield and Hudley (2007) concluded that strong, positive ethnic identity improves young people's mental health and lowers their behavioral problems. Exploring racial identity in the relationship between risk orientation and well-being might have significant implications for promoting mental health and reducing alcohol consumption that were not discovered here.

Lastly, and in conjunction with the previous two limitations, a closer look at inter-ethnic differences in mental health and well-being is a vital next step. This study was limited by analyzing youth of various Latino ethnicities as one pan-ethnic category. Though the majority of youth in this sample are of Mexican origin, there are other ethnic groups that are included in the Latino category. Latinos come from various ethnic backgrounds with different cultures and life experiences. More detailed conclusions regarding ethnicity could be discovered if researchers study these mental health and well-being outcomes among a sample where inter-ethnic comparisons are possible.

Summary. In conclusion, risk orientation is shaped by different mechanisms across social status. The same characteristics that increase risk orientation among some groups decrease risk orientation among others. Furthermore, risk orientation relates to well-being in complicated ways. If I had just examined these processes among the pooled sample, I would have missed important race/ethnic and gender differences in the way risk relates to well-being. I also would have underestimated the effect of risk orientation on well-being had I not tested reciprocal effects between them.

This study examined a number of well-being outcomes at the suggestion of Aneshensel (2005) and found that the association between risk and well-being does indeed vary across indicators of well-being. I also took a number of childhood and adolescent factors into consideration based on the work of life course scholars (Elder and Rockwell 1979; George 2007; Shanahan 2000) and found that these factors do matter in shaping risk orientation and well-being in young adulthood. Controlling for these childhood and adolescent factors also demonstrated when and how risk orientation in young adulthood has unique effects on well-being. The findings showed that well-being in young adulthood is partly, but not entirely, shaped by childhood factors.

Finally, risk orientation is in some ways a similar mechanism of mental health and well-being as actual risk-taking behaviors. However, there were some benefits to risk orientation for some groups that has not been realized in research that is restricted to analyzing risk-taking behaviors. Continued research on risk orientation, risk-taking behaviors, and well-being is warranted, especially research that emphasizes the sociological relevance of social status in these processes.

REFERENCES

Achenbach, Thomas M. and Craig S. Edelbrock. 1981. "Behavioral Problems and Competencies

    Reported by Parents of Normal and Disturbed Children Aged Four through Sixteen."

    Monographs of the Society for Research in Child Development, Vol. 46: 1-82.

Acker, Joan. 1990. "Hierarchies, Jobs, Bodies: A Theory of Gendered Organizations." *Gender*

    and Society, Vol. 4: 139-158.

Adrian, M. 2002. "A Critical Perspective on Cross-Cultural Contexts for Addiction and

    Multiculturalism: Their Meanings and Implications in the Substance Use Field."

    Substance Use and Misuse, Vol. 37: 853-900.

Agnew, Robert and Timothy Brezina. 1997. "Relational Problems with Peers, Gender, and

    Delinquency." *Youth & Society*, Vol. 29: 84-111.

Albert, Dustin and Laurence Steinberg. 2011. "Peer Influences on Adolescent Risk Behavior." In

    M. Bardo, D. Fishbein, & R. Milch (Eds.), *Inhibitory Control and Drug Abuse*

    Prevention: From Research to Translation. (Part 3, pp. 211-226). New York: Springer.

Allen, Joseph, Maryfrances Porter, and Christy McFarland. 2006. "Leaders and Followers in

    Adolescent Close Friendships: Susceptibility to Peer Influence as a Predictor of Risky

    Behavior, Friendship Instability, and Depression." *Development and Psychopathology*,

    Vol. 18: 155-172.

Andrews, Judy A., Elizabeth Tildesley, Hyman Hops, and Fuzhong Li. 2002. "The Influence of

    Peers on Young Adult Substance Use." *Health Psychology*, Vol. 21: 349-357.

Aneshensel, Carol S. 2005. "Research in Mental Health: Social Etiology Versus Social

    Consequences." *Journal of Health and Social Behavior*, Vol. 46: 221-228.

Aneshensel, Carol S., Carolyn M. Rutter, and Peter A. Lachenbruch. 1991. "Social Structure,

    Stress, and Mental Health: Competing Conceptual and Analytic Models." *American*

    Sociological Review, Vol. 56: 166-178.

Anthony, E. James and Bertram J. Cohler. 1987. *The Invulnerable Child*. New York: Guilford

    Press.

Arnett, Jeffrey. 1999. "Adolescent Storm and Stress, Reconsidered." *American Psychologist*,

    Vol. 54: 317-327.

Avison, William R. and Donna D. McAlpine. 1992. "Gender Differences in Symptoms and

    Depression among Adolescents." *Journal of Health and Social Behavior*, Vol. 33: 77-96.

Bachman, Jerald, John Wallace, Jr., Patrick O'Malley, Lloyd Johnston, Candace Kurth, and

    HaroldNeighbors. 1991. "Racial/Ethnic Differences in Smoking, Drinking, and Illicit

    Drug Use among American High School Seniors, 1976-1989." *American Journal of*

    Public Health, Vol. 81: 372-377.

Bahr, Stephen J., John P. Hoffmann, and Xiaoyan Yang. 2005. "Parental and Peer Influences on

    the Risk of Adolescent Drug Use." *The Journal of Primary Prevention*, Vol. 26: 529-551.

Bailey Susan L. and Robert L. Hubbard. 1990. "Developmental Variation in the Context of

    Marijuana Initiation among Adolescents." *Journal of Health and Social Behavior*, Vol.

    31: 58-70.

Beaver, Kevin, Chris Gibson, Michael Turner, Matt DeLisi, Michael Vaughn, and Ashleigh

    Holand. 2011. "Stability of Delinquent Peer Associations: A Biosocial Test of Warr's

    Sticky-Friends Hypothesis." *Crime & Delinquency*, Vol. 57: 907-927.

Benson, Peter L., Peter C. Scales, and Marc Mannes. 2003. "Developmental Strengths and their

    Sources: Implications for the Study and Practice of Community Building." In R. M.

Lerner, F. Jacobs, and D. Wertlieb (Eds.), *Handbook of Applied Developmental Science: Promoting Positive Child, Adolescent, and Family Development through Research, Policies and Programs; Vol. 1. Applying Developmental Science for Youth and Families: Historical and Theoretical Foundations* (pp. 369–406). Newbury Park, CA: Sage Publications.

Bollen, Kenneth. 1989. *Structural Equations with Latent Variables*. New York: John Wiley.

Bolognini, Monique, Bernard Plancherel, Walter Bettschart, and Olivier Halfon. 1996. "Self-Esteem and Mental Health in Early Adolescence: Development and Gender Differences." *Journal of Adolescence*, Vol. 19: 233-245.

Bowler, R., S. Rauch, and R. Schwarzer. 1986. "Self-Esteem and Interracial Attitudes in Black High School Students: A Comparison with Five Ethnic Groups." *Urban Education*, Vol. 21: 3-19.

Bratter, Jenifer and Karl Eschbach. 2005. "Race/Ethnic Differences in Nonspecific Psychological Distress: Evidence from the National Health Interview Survey." *Social Science Quarterly*, Vol. 86: 620-644.

Breslau, Joshua, Sergio Aguilar-Gaxiola, Kenneth Kendler, Maxwell Su, David Williams, and Ronald Kessler. 2006. "Specifying Race-Ethnic Differences in Risk for Psychiatric Disorder in a USA National Sample." *Psychological Medicine*, Vol. 36: 57-68.

Brown, Tony N. and Chase L. Lesane-Brown. 2006. "Race Socialization Messages across Historical Time." *Social Psychology Quarterly*, Vol. 69: 201-213.

Brown, Tony N., Emily E. Tanner-Smith, Chase L. Lesane-Brown, and Michael E. Ezell. 2007. "Child, Parent, and Situational Correlates of Familial Ethnic/Race Socialization." *Journal of Marriage and Family*, Vol. 69: 14-25.

Budig, Michelle J. and Paula England. 2001. "The Wage Penalty for Motherhood." *American Sociological Review*, Vol. 66: 204-225.

Burke, Peter J., Timothy J. Owens, Richard T. Serpe, and Peggy A. Thoits (Editors). 2003. *Advances in Identity Theory and Research*. New York: Kluwer.

Burnam, M. Audrey, Richard L. Hough, Javier I. Escobar, Marvin Karno, Dianne M. Timbers, Cynthia A. Telles, and Ben Z. Locke. 1987. "Six-Month Prevalence of Specific Psychiatric Disorders among Mexican Americans and Non-Hispanic Whites in Los Angeles." *Archives of General Psychiatry*, Vol. 44: 687-694.

Bursik, Robert. 1988. "Social Disorganization and Theories of Crime and Delinquency: Problems and Prospects." *Criminology*, Vol. 26: 519-551.

Cahill, Meagan and Gordon Mulligan. 2003. "The Determinants of Crime in Tucson, Arizona." *Urban Geography*, Vol. 24: 582-610.

Caldwell, Bettye M. and Robert H. Bradley. 1984. *Home Observation for Measurement of the Environment*. Little Rock: University of Arkansas at Little Rock.

Casey, B. J., Rebecca M. Jones, and Todd A. Hare. 2008. "The Adolescent Brain." *Annals of the New York Academy of Sciences*, Vol. 1124: 111-126.

Casey, B. J., Rebecca M. Jones, Liat Levita, Victoria Libby, Siobhan Pattwell, Erika Ruberry, Fatima Soliman, and Leah H. Somerville. 2010. "The Storm and Stress of Adolescence: Insights from Human Imaging and Mouse Genetics." *Developmental Psychobiology*, Vol. 52: 225-235.

Cauffman, Elizabeth and Laurence Steinberg. 2000. "Researching Adolescents' Judgment and Culpability." In T. Grisso and R. G. Schwartz (Eds.), *Youth on Trial: A Developmental Perspective on Juvenile Justice* (pp. 325-343). Chicago: The University of Chicago Press.

Center for Human Resource Research. 2002. *NLSY79 User's Guide: A Guide to the 1979-1998 National Longitudinal Survey of Youth Data*. Columbus, OH: The Ohio State University.

Centers for Disease Control and Prevention. 2010. Vital signs: Binge Drinking among High School Students and Adults—United States, 2009 [Online]. Morbidity and Mortality Weekly Report (MMWR); Vol. 59.

Centers for Disease Control and Prevention. 2011. Vital Signs Report on New Hope for Stopping HIV [Online]. http://www.cdc.gov/VitalSigns/pdf/2011-12-vitalsigns.pdf

Centers for Disease Control and Prevention. 2012a. Youth Risk Behavior Surveillance—United States, 2011 [Online]. Morbidity and Mortality Weekly Report (MMWR); Vol. 61.

Centers for Disease Control and Prevention. 2012b. Web-based Injury Statistics Query and Reporting System (WISQARS) [Online]. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention (producer).

Centers for Disease Control and Prevention. 2013. Youth Risk Behavior Surveillance System (YRBSS) [Online]. http://www.cdc.gov/HealthyYouth/yrbs/index.htm.

Chambliss, William J. 1973. "The Saints and the Roughnecks." *Society*, Vol. 11: 24-31.

Chappell, Neena and Betty Havens. 1980. "Old and Female: Testing the Double Jeopardy Hypothesis." *The Sociological Quarterly*, Vol. 21: 157-171.

Charles, Camille Zubrinsky. 2003. "The Dynamics of Racial Residential Segregation." *Annual Review of Sociology*, Vol. 29: 167-207.

Chilcoat Howard D. and James C. Anthony. 1996. "Impact of Parent Monitoring on Initiation of Drug Use through Late Childhood." *Journal of the American Academy of Child and Adolescent Psychiatry*, Vol. 35: 91-100.

Christiansen, Elizabeth J. and William P. Evans. 2005. "Adolescent Victimization: Testing Models of Resiliency by Gender." *Journal of Early Adolescence*, Vol. 25: 298-316.

Christie-Mizell, C. André. 2003. "Bullying: The Consequences of Interparental Discord and Child's Self-Concept." *Family Process*, Vol. 42: 237-251.

Christie-Mizell, C. André, Erin M. Pryor, and Elizabeth R. B. Grossman. 2008. "Child Depressive Symptoms, Spanking and Emotional Support: Differences between African American and European American Youth." *Family Relations*, Vol. 57: 335-350.

Christie-Mizell, C. André, Jacqueline M. Keil, Mary Therese Laske, and Jennifer Stewart. 2011. "Bullying Behavior, Parents' Work Hours and Early Adolescents' Perceptions of Time Spent with Parents." *Youth & Society*, Vol. 43: 1570-1595.

Christie-Mizell, C. André, Lala Carr Steelman, and Jennifer Stewart. 2003. "Seeing their Surroundings: The Effects of Neighborhood Setting and Race on Maternal Stress Levels." *Social Science Research*, Vol. 32: 402-428.

Christie-Mizell, C. André and Rebecca J. Erickson. 2007. "Mothers and Mastery: The Consequences of Perceived Neighborhood Disorder." *Social Psychology Quarterly*, Vol. 70: 340-365.

Christie-Mizell, C. André and Robert Peralta. 2009. "The Gender Gap in Alcohol Consumption during Late Adolescence and Young Adulthood: Gendered Attitudes and Adult Roles." *Journal of Health and Social Behavior*, Vol. 50: 410-426.

Coard, Stephanie I., Scyatta A. Wallace, Howard C. Stevenson, and Laurie M. Brotman. 2004. "Towards Culturally Relevant Preventive Interventions: The Consideration of Racial Socialization in Parent Training with African American Families." *Journal of Child and Family Studies*, Vol. 13: 277-293.

Cockerham, William C. 1990. "A Test of the Relationship between Race, Socioeconomic Status, and Psychological Distress." *Social Science Medicine*, Vol. 31: 1321-1326.

Cohen, Lawrence E. and Marcus Felson. 1979. "Social Change and Crime Rate Trends: A Routine Activity Approach." *American Sociological Review*, Vol. 44: 588-608.

Collins, Patricia Hill. 2005. *Black Sexual Politics: African Americans, Gender, and the New Racism*. New York: Routledge.

Collins, W. Andrew and Laurence Steinberg. 2006. "Adolescent Development in Interpersonal Context." In W. Damon & R. Lerner (Series Eds.) & N. Eisenberg (Vol. Ed.), *Handbook of Child Psychology: Social, Emotional, and Personality Development* (Vol. 3, pp. 1003-1067). New York: Wiley.

Cops, Diederik and Stefaan Pleysier. 2011. "'Doing Gender' in Fear of Crime: The Impact of Gender Identity on Reported Levels of Fear of Crime in Adolescents and Young Adults." *British Journal of Criminology*, Vol. 51: 58-74.

Corcoran, Mary and Jordan Matsudaira. 2005. "Is it Getting Harder to Get Ahead?" In R. A. Sattersten, Jr., F. F. Furstenberg, Jr., & R. G. Rumbaut (Eds.), *On the Frontier of Adulthood: Theory, Research, and Public Policy* (pp. 356-395). Chicago: University of Chicago Press.

Crenshaw, Kimberle. 1989. "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics." *University of Chicago Legal Forum*, pp. 139-167.

Demant, Jakob and Margaretha Järvinen. 2006. "Constructing Maturity through Alcohol Experience—Focus Group Interviews with Teenagers." *Addiction Research and Theory*, Vol. 14: 589-602.

Demo, David H. and Michael Hughes. 1990. "Socialization and Racial Identity among Black

  Americans." *Social Psychology Quarterly*, Vol. 53: 364-374.

Dent, Renuka Jeyarajah and R. J. Sean Cameron. 2003. "Developing Resilience in Children Who

  are in Public Care: The Educational Psychology Perspective." *Educational Psychology in*

  Practice, Vol. 19: 3-19.

Dietz, Tracy L. 1998. "An Examination of Violence and Gender Role Portrayals in Video

  Games: Implications for Gender Socialization and Aggressive Behavior." *Sex Roles*,

  Vol. 38: 425-442.

Dowd, James J. and Vern L. Bengston. 1978. "Aging in Minority Populations an Examination of

  the Double Jeopardy Hypothesis." *The Journal of Gerontology*, Vol. 33: 427-436.

Drevets, Wayne C. and Marcus E. Raichle. 1998. "Reciprocal Suppression of Regional Cerebral

  Blood Flow during Emotional Versus Higher Cognitive Processes: Implications for

  Interactions between Emotion and Cognition." *Cognition and Emotion*, Vol. 12: 353-385.

Eamon, Mary Keegan and Cray Mulder. 2005. "Predicting Antisocial Behavior among Latino

  Young Adolescents: An Ecological Systems Analysis. *American Journal of*

  Orthopsychiatry, Vol. 75: 117-127.

Egeland, Byron, Elizabeth Carlson, and L. Alan Sroufe. 1993. "Resilience as Process.

  Development and Psychopathology, Vol. 5: 517-528.

Ehrlich, Sean and Cherie Maestas. 2010. "Risk Orientation, Risk Exposure, and Policy Opinions:

  The Case of Free Trade." *Political Psychology*, Vol. 31: 657-684.

Elder, Glen H. and Richard C. Rockwell. 1979. "The Life Course and Human Development: An

  Ecological Perspective." *International Journal of Behavioral Development*, Vol. 2: 1-21.

Evans, William Paul, Shawn C. Marsh, and Daniel J. Weigel. 2010. "Promoting Adolescent

    Sense of Coherence: Testing Models of Risk, Protection, and Resiliency." *Journal of*

    Community & Applied Social Psychology, Vol. 20: 30–43.

Fan, Angela P. and William W. Eaton. 2001. "Longitudinal Study Assessing the Joint Effects of

    Socioeconomic Status and Birth Risks on Adult Emotional and Nervous Conditions." *The*

    British Journal of Psychiatry, Vol. 178: 78-83.

Feder, June, Ronald Levant, and James Dean. 2007. "Boys and Violence: A Gender-Informed

    Analysis." *Professional Psychology: Research and Practice*, Vol. 38: 385-391.

Felson, Marcus. 1987. "Routine Activities and Crime Prevention in the Developing Metropolis."

    Criminology, Vol. 25: 911-932.

Felson, Marcus and Ronald V. Clarke. 1998. "Opportunity Makes the Thief: Practical Theory for

    Crime Prevention." *Research Development Statistics*, Police Research Series, Paper 98.

Fitzpatrick, Kevin M. and Janet P. Boldizar. 1993. "The Prevalence and Consequences of

    Exposure to Violence among African American Youth." *Journal of the American*

    Academy of Child & Adolescent Psychiatry, Vol. 32: 424-430.

Franklin, Cortney A. and Travis W. Franklin. 2009. "Predicting Fear of Crime Considering

    Differences across Gender." *Feminist Criminology*, Vol. 4: 83-106.

Gallagher, Charles. 2003. "Color-Blind Privilege: The Social and Political Functions of Erasing

    the Color Line in Post Race America." *Race, Gender, & Class*, Vol. 10: 1-17.

Gardner, Margo and Laurence Steinberg. 2005. "Peer Influence on Risk Taking, Risk Preference,

    and Risky Decision Making in Adolescence and Adulthood: An Experimental Study."

    Developmental Psychology, Vol. 41: 625-635.

George, Linda. 2007. "Life Course Perspectives on Social Factors and Mental Illness." *Mental Health, Social Mirror*, 191-218.

Gilman, S. E., I. Kawachi, G. M. Fitzmaurice, and S.L. Buka. 2002. "Socioeconomic Status in Childhood and the Lifetime Risk of Major Depression." *International Journal of Epidemiology,* Vol. 31: 359-367.

Gilman, S. E., I. Kawachi, G. M. Fitzmaurice, and S.L. Buka. 2003. "Socioeconomic Status, Family Disruption and Residential Stability in Childhood: Relation to Onset, Recurrence and Remission of Major Depression." *Psychological Medicine*, Vol. 33: 1341-1355.

Good, Glenn E. and Phillip K. Wood. 1995. "Male Gender Role Conflict, Depression, and Help Seeking: Do College Men Face Double Jeopardy?" *Journal of Counseling & Development*, Vol. 74: 70-75.

Graham, Philip and Michael Rutter. 1968. "The Reliability and Validity of the Psychiatric Assessment of the Child, II: Interview with the Parent." *British Journal of Psychiatry*, Vol. 114: 581-592.

Hagan, John, A. R. Gillis, and John Simpson. 1985. "The Class Structure of Gender and Delinquency: Toward a Power-Control Theory of Common Delinquent Behavior." *American Journal of Sociology*, Vol. 90: 1151-1178.

Hall, G. Stanley. 1904. *Adolescence: Its Psychology and its Relations to Physiology, Anthropology, Sociology, Sex, Crime, Religion, and Education*. (Vols. I&II). New York: D. Appleton & Co.

Hamilton, Brady E., Joyce A. Martin, and Stephanie J. Ventura. 2011. "Births: Preliminary Data for 2010." *National Vital Statistics Reports*, Vol. 60: 1-29.

Hardesty, Monica. 2001. "Biracial Lived Experience: From Encapsulated to Constructive Self."

    Studies in Symbolic Interaction, Vol. 24: 113-143.

Hirschi, Travis and Michael Gottfredson. 1983. "Age and the Explanation of Crime." *American*

    Journal of Sociology, Vol. 89: 552-584.

Hirschman, Charles. 2004. "The Origins and Demise of the Concept of Race." *Population and*

    Development Review, Vol. 30: 385-415.

Hollister-Wagner, Gambrill, Vangie Foshee, and Christine Jackson. 2001. "Adolescent

    Aggression: Models of Resiliency." *Journal of Applied Social Psychology*, Vol. 31: 445-

    466.

Horvath, Paula and Marvin Zuckerman. 1993. "Sensation Seeking, Risk Appraisal, and Risky

    Behavior." *Personality and Individual Differences*, Vol. 14: 41-52.

Hughes, Michael and David H. Demo. 1989. "Self-Perceptions of Black Americans: Self-Esteem

    and Personal Efficacy." *American Journal of Sociology*, Vol. 95: 132-159.

Ingram, Rick E. and Joseph M. Price. 2009. *Vulnerability to Psychopathology: Risk Across the*

    Lifespan. New York, NY: Guilford Press.

Isaacs, Julia. 2007. *Economic Mobility of Black and White Families*. Economic Mobility Project.

Jackson, James S., Katherine M. Knight, and Jane A. Rafferty. 2010. "Race and Unhealthy

    Behaviors: Chronic Stress, The HPA Axis, and Physical and Mental Health Disparities

    Over the Life Course." *American Journal of Public Health*, Vol. 100: 933-939.

James, W. 1890. *Principles of Psychology*. New York: Holt Rinehart and Winston.

Jensen, G., C. White, and J. Galliher. 1982. "Ethnic Status and Adolescent Self-Evaluations:

    An Extension of Research on Minority Self-Esteem." *Social Problems*, Vol. 30: 226-239.

Jenson, Jeffrey and Mark Fraser. 2006. "A Risk and Resilience Framework for Child, Youth, and Family Policy." Pp. 5-24 in *Social Policy for Children and Families*, Edited by J. Jenson and M. Fraser, Thousand Oaks, CA: Sage Publications.

Johnson, Robert R. and Dean R. Gerstein. 1998. "Initiation of Use of Alcohol, Cigarettes, Marijuana, Cocaine, and Other Substances in US Birth Cohorts since 1919." *American Journal of Public Health*, Vol. 88: 27-33.

Johnson, Timothy P. 1991. "Mental Health, Social Relationships, and Social Selection: A Longitudinal Analysis." *Journal of Health and Social Behavior*, Vol. 32: 408-423.

Kandel, DB, Kessler RC, Margulies RZ. 1979. "Antecedents of Adolescent Initiations into Stages of Drug Use: A Developmental Analysis." *Journal of Youth and Adolescence*, Vol. 7: 13-40.

Kaplan, Howard B. 2005. "Understanding the Concept of Resilience," In S. Goldstein and R. B. Brooks (Eds), *Handbook of Resilience in Children* (pp.39-47). New York: Kluwer Academic/Plenum Publishers.

Karno, Marvin, Richard L. Hough, M. Audrey Burnam, Javier I. Escobar, Dianne M. Timbers, Felipe Santana, and Jeffrey H. Boyd. 1987. "Lifetime Prevalence of Specific Psychiatric Disorders among Mexican Americans and Non-Hispanic Whites in Los Angeles." *Archives of General Psychiatry*, Vol. 44: 695-701.

Kearney, Melissa S. 2006. "Intergenerational Mobility for Women and Minorities in the United States." *The Future of Children*, Vol. 16: 37-53.

Keith, Verna M. and Cedric Herring. 1991. "Skin Tone and Stratification in the Black Community." *American Journal of Sociology*, Vol. 97: 760-778.

Kellam, S., J.D. Branch, K.C. Agrawal, and M.E. Ensminger. 1975. *Mental Health and Going to School*. Chicago: University of Chicago Press.

Kertzner, Robert, Ilan Meyer, David Frost, and Michael Stirratt. 2009. "Social and Psychological Well-Being in Lesbians, Gay Men, and Bisexuals: The Effects of Race, Gender, Age, and Sexual Identity." *American Journal of Orthopsychiatry*, Vol. 79: 500-510.

Kessler, Ron C., Harold W. Neighbors. 1986. "A New Perspective on the Relationships among Race, Social Class, and Psychological Distress." *Journal of Health and Social Behavior*, Vol. 27: 107-115.

Kessler Ron C., Patricia Berglund, Olga Demler, Robert Jin, Kathleen R. Merikangas, and Ellen E. Walters. 2005. "Lifetime Prevalence and Age-of-Onset Distributions of DSM-IV Disorders in the National Comorbidity Survey Replication." *Archives of General Psychiatry*, Vol. 62: 593-602.

Knecht, Andrea, Tom Snijders, Chris Baerveldt, Christian Steglich, and Werner Raub. 2010. "Friendship and Delinquency: Selection and Influence Processes in Early Adolescence." *Social Development*, Vol. 19: 494-514.

Kosterman, Rick, J. David Hawkins, Jie Guo, Richard F. Catalano, and Robert D. Abbott. 2000. "The Dynamics of Alcohol and Marijuana Initiation: Patterns and Predictors of First Use in Adolescence." *American Journal of Public Health*, Vol. 90: 360-366.

Kowaleski-Jones, Lori. 2000. "Staying out of Trouble: Community Resources and Problem Behavior among High-Risk Adolescents." *Journal of Marriage and Family*, Vol. 62: 449-464.

Kreager, Derek, Kelly Rulison, and James Moody. 2011. "Delinquency and the Structure of Adolescent Peer Groups." *Criminology*, Vol. 49: 95-127.

Kupchik, Aaron. 2009. "Things are Tough All Over: Race, Ethnicity, Class and School

      Discipline." *Punishment & Society*, Vol. 11: 291-317.

Laumann, Edward O. and Yoosik Youm. 1999. "Racial/Ethnic Group Differences in the

      Prevalence of Sexually Transmitted Diseases in the United States: A Network

      Explanation." *Sexually Transmitted Diseases*, Vol. 26: 250-261.

Lauritsen, Janet. 1994. "Explaining Race and Gender Differences in Adolescent Sexual

      Behavior." *Social Forces*, Vol. 72: 859-884.

Leaper, Campbell. 1994. "Exploring the Consequences of Gender Segregation on Social

      Relationships." *New Directions for Child and Adolescent Development*, Vol. 65: 67-86.

Lee, Sharon. 1993. "Racial Classifications in the US Census: 1890-1990." *Ethnic and Racial*

      Studies, Vol. 16: 75-94.

Levin, Shana, Christopher Federico, Jim Sidanius, and Joshua Rabinowitz. 2002. "Social

      Dominance Orientation and Intergroup Bias: The Legitimation of Favoritism for High-

      Status Groups." *Social Psychology Bulletin*, Vol. 28: 144-157.

Levin, Shana, Colette Van Laar, and Winona Foote. 2006. "Ethnic Segregation and Perceived

      Discrimination in College: Mutual Influences and Effects on Social and Academic Life."

      Journal of Applied Psychology, Vol. 36: 1471-1501.

Lewis, Susan K., Catherine E. Ross, and John Mirowsky. 1999. "Establishing a Sense of

      Personal Control in the Transition to Adulthood." *Social Forces*, Vol. 77: 1573-1599.

Link, Bruce and Jo C. Phelan. 1995. "Social Conditions as Fundamental Causes of Disease."

      Journal of Health and Social Behavior, Vol. 35: 80-94.

Link, Bruce and Jo C. Phelan. 1996. "Understanding Sociodemographic Differences in Health--
the Role of Fundamental Social Causes." *American Journal of Public Health*, Vol. 86:
471-473.

Link, Bruce and Jo C. Phelan. 2002. "McKeown and the Idea that Social Conditions are
Fundamental Causes of Disease." *American Journal of Public Health*, Vol. 92: 730-732.

Link, Bruce, Jo C. Phelan, Richard Miech, and Emily Leckman Westin. 2008. "The Resources
that Matter: Fundamental Social Causes of Health Disparities and the Challenge of
Intelligence." *Journal of Health and Social Behavior*, Vol. 49: 72-91.

Longest, Kyle and Peggy Thoits. 2012. "Gender, the Stress Process, and Health: A
Configurational Approach." *Society and Mental Health*, Published online before print on
July 6, 2012.

Luthar, Suniya S., Dante Cicchetti, and Bronwyn Becker. 2000. "The Construct of Resilience: A
Critical Evaluation and Guidelines for Future Work." *Child Development*, Vol. 71: 543-
562.

Manning, Wendy, Christine Flanigan, Peggy Giordano, and Monica Longmore. 2009.
"Relationship Dynamics and Consistency of Condom Use among Adolescents."
Perspectives on Sexual and Reproductive Health, Vol. 41: 181-190.

Marmot, M., M. Shipley, E. Brunner, and H. Hemingway. 2001. "Relative Contribution of Early
Life and Adult Socioeconomic Factors to Adult Morbidity in the Whitehall II Study."
Journal of Epidemiology and Community Health, Vol. 55: 301-307.

Martin, Carol Lynn and Richard A. Fabes. 2001. "The Stability and Consequences of Young
Children's Same-Sex Peer Interactions." *Developmental Psychology*, Vol. 37: 431-446.

Martinez, R. and R. Dukes. 1991. "Ethnic and Gender Differences in Self-Esteem." *Journal of Youth and Adolescence*, Vol. 26: 503-516.

Massoglia, Michael and Christopher Uggen. 2010. "Settling Down and Aging Out: Toward and Interactionist Theory of Desistance and the Transition to Adulthood." *American Journal of Sociology*, Vol. 116: 543-582.

May, David C., Nicole E. Rader, and Sarah Goodrum. 2010. "A Gendered Assessment of the 'Threat of Victimization': Examining Gender Differences in Fear of Crime, Perceived Risk, Avoidance, and Defensive Behaviors." *Criminal Justice Review*, Vol. 35: 159-182.

Mazumder, Bhashkar. 2005. "The Apple Falls Even Closer to the Tree than We Thought." In S. Bowles, H. Gintis, & M. Osbourne (Eds.), *Unequal Chances: Family Background and Economic Success* (pp. 80-99). New York: Russell Sage Foundation; Princeton, NJ: Princeton University Press.

McCarthy William J. and M. Douglas Anglin. 1990. "Narcotics Addicts: Effect of Family and Parental Risk Factors on Timing of Emancipation, Drug Use Onset, Pre-addiction Incarcerations and Educational Achievement." *Journal of Drug Issues*, Vol. 20: 99-123.

McGloin, Jean Marie. 2009. "Delinquency Balance: Revisiting Peer Influence." *Criminology*, Vol. 47: 439-477.

McGuire, Thomas G. and Jeanne Miranda. 2008. "New Evidence Regarding Racial and Ethnic Disparities in Mental Health: Policy Implications." *Health Affairs*, Vol. 27: 393-403.

Menaghan, Elizabeth G. and Toby L. Parcel. 1991. "Determining Children's Home Environments: The Impact of Maternal Characteristics and Current Occupational and Family Conditions." *Journal of Marriage and the Family*, Vol. 53: 417-431.

Mirowsky, John, and Catherine E. Ross. 2003. *Education, Social Status and Health: Social Institutions and Social Change*. New York: Aldine de Gruyter.

Morenoff, Jeffrey, Robert J. Sampson, and Stephen W. Raudenbush. 2001. "Neighborhood Inequality, Collective Efficacy, and the Spatial Dynamics of Homicide." *Criminology*, Vol. 39: 517-560.

Morrongiello, Barbara and Kerri Hogg. 2004. "Mothers' Reactions to Children Misbehaving in Ways That Can Lead to Injury: Implications for Gender Differences in Children's Risk Taking and Injuries." *Sex Roles*, Vol. 50: 103-118.

Myers, Jerome K., Myrna M. Weissman, Gary L. Tischler, Charles E. Holzer, Philip J. Leaf, Helen Orvaschel, James C. Anthony, Jeffrey H. Boyd, Jack D. Burke, Jr., Morton Kramer, and Roger Stoltzman. 1984. "Six-Month Prevalence of Psychiatric Disorders in Three Communities." *Archives of General Psychiatry*, Vol. 41: 959-967.

Newsom, Jason T., Tyrae L. Mahan, Karen S. Rook, and Neal Krause. 2008. "Stable Negative Social Exchanges and Health." *Health Psychology*, Vol. 27: 78-86.

Noam, Gil G. and Kurt W. Fischer. 1996. *Development and Vulnerability in Close Relationships*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc. Publishers.

Nolen-Hoeksema, Susan. 1990. *Sex Differences in Depression*. CA: Stanford University Press.

Nolen-Hoeksema, Susan, J. Larson, and C. Grayson. 1999. "Explaining the Gender Difference in Depressive Symptoms." *Journal of Personality and Social Psychology*, Vol. 77: 1061-1072.

Ockerman, J. 1979. *Self-Esteem and Social Anchorage of Adolescent White, Black, and Mexican American Students*. R&E Research Associates, Palo Alto, CA.

Oliver, Melvin and Thomas Shapiro. [1995] 2006. Black Wealth/White Wealth: A New

      Perspective on Racial Inequality. New York: Routledge.

Omi, Michael and Howard Winant. 1994. *Racial Formation in the United States: From the*

      1960s to the 1990s. NY: Routledge.

Parcel, Toby L. and Elizabeth G. Menaghan. 1989. *Child Home Environment as a Mediating*

      Construct between SES and Child Outcomes (Research Report). Columbus: The Ohio

      State University, Center for Human Resource Research.

Parcel, Toby L. and Elizabeth G. Menaghan. 1990. "Maternal Working Conditions and

      Children's Verbal Facility: Studying the Intergenerational Transmission of Inequality

      from Mothers to Young Children." *Social Psychology Quarterly*, Vol. 53: 132-147.

Pasco, Elizabeth A. and Laura Smart Richman. 2009. "Perceived Discrimination and Health: A

      Meta-Analytic Review." *Psychological Bulletin*, Vol. 135: 531-554.

Pearlin, Leonard I. 1999a. "The Stress Process Revisited: Reflections on Concepts and their

      Interrelationships." Pp. 395-415 in *Handbook of the Sociology of Mental Health*, edited

      by C. S. Aneshensel and J. C. Phelan. New York: Kluwer Academic/Plenum.

Pearlin, Leonard I. 1999b. "Stress and Mental health: A Conceptual Overview." Pp. 161-175 in

      A Handbook for the Study of Mental Health, Edited by A. V. Horwitz and T. Scheid.

      Cambridge University Press.

Pearlin, Leonard I., Elizabeth G. Menaghan, Morton A. Lieberman, and Joseph T. Mullan. 1981.

      "The Stress Process." *Journal of Health and Social Behavior*, Vol. 22: 337-356.

Peterson, James L. and Nicholas Zill. 1986. "Marital Disruption, Parent-Child Relationships,

      and Behavior Problems in Children." *Journal of Marriage and Family*, Vol. 48: 295-307.

Phelan, Jo C., Bruce Link, Ana Diez-Roux, Ichiro Kawachi, and Bruce Levin. 2004.

  "'Fundamental Causes' of Social Inequalities in Mortality: A Test of the Theory."

  Journal of Health and Social Behavior, Vol. 45: 265-285.

Phelan, Jo C., Bruce G. Link, and Parisa Tehranifar. 2010. "Social Conditions as Fundamental

  Causes of Health Inequalities: Theory, Evidence, and Policy Implications." *Journal*

  of Health and Social Behavior, Vol. 51: S28-S40.

Phinney, Jean S., Cindy Lou Cantu, and Dawn A. Kurtz. 1997. "Ethnic and American Identity

  as Predictors of Self-Esteem among African American, Latino, and White Adolescents."

  Journal of Youth and Adolescence, Vol. 26: 165-185.

Porter, Judith R. and Robert E. Washington. 1979. "Black Identity and Self-Esteem: A

  Review of Studies of Black Self-Concept, 1968-1978." *Annual Review of Sociology*,

  Vol. 5: 53-74.

Porter, Judith R. and Robert E. Washington. 1979. "Black Identity and Self-Esteem: A Review

  of Studies of Black Self-Concept, 1968-1978." *Annual Review of Sociology*, Vol. 5:

  53-74.

Power, C. and O. Manor. 1992. "Explaining Social Class Differences in Psychological Health

  among Young Adults: A Longitudinal Perspective." *Social Psychiatry and Psychiatric*

  Epidemiology, Vol. 27: 284-291.

Radloff, Lenore Sawyer. 1977. "The CES-D Scale: A Self-Report Depression Scale for Research

  in the General Population." *Applied Psychological Measurement*, Vol. 1: 385-401.

Reyna, Valerie and Frank Farley. 2006. "Risk and Rationality in Adolescent Decision-Making:

  Implications for Theory, Practice, and Public Policy." *Psychological Science in the*

  Public Interest, Vol. 7: 1-44.

Roberts, Robert E. and Mahoob Sobhan. 1992. "Symptoms of Depression in Adolescence: A

    Comparison of Anglo, African, and Hispanic Americans." *Journal of Youth and*

    Adolescence, Vol. 21: 639-651.

Robins, Lee N., John E. Helzer, Myrna M. Weissman, Helen Orvaschel, Ernest Gruenberg, Jack

    D. Burke, and Darrel A. Regier. 1984. "Lifetime Prevalence of Specific Psychiatric

    Disorders in Three Sites." *Archives of General Psychiatry*, Vol. 41: 949-958.

Rosenfield, Sarah. 2012. "Triple Jeopardy? Mental Health at the Intersection of Gender, Race,

    and Class." *Social Science & Medicine*, Vol. 74: 1791-1801.

Rosenfield, Sarah and Dawne Mouzon. 2013. "Gender and Mental Health." Pp. 277-296 in

    Handbooks of Sociology and Social Research, Edited by C. S. Aneshensel, J. C. Phelan,

    and A. Bierman. Springer Netherlands.

Ross, Catherine E. and John Mirowsky. 1995. "Does Employment Affect Health?" *Journal of*

    Health and Social Behavior, Vol. 36: 230-243.

Rutter, Michael. 1985. "Resilience in the Face of Adversity: Protective Factors and Resistance to

    Psychiatric Disorder." *British Journal of Psychiatry*, Vol. 147: 598-611.

Rutter, Michael. 2001. "Psychosocial Adversity: Risk, Resilience and Recovery." In J. M.

    Richman and M. W. Fraser (Eds), The Context of Youth Violence: Resilience, Risk, and

    Protection (pp. 13-41). Westport, CT: Praeger.

Rutter, Michael, Jack Tizard, and Kingsley Whitmore. 1970. *Education, Health and Behaviour*.

    Longman Publishing Group.

Sampson, Robert J. 1987. "Urban Black Violence: The Effect of Male Joblessness and Family

    Disruption." *American Journal of Sociology*, Vol. 93: 348-382.

Sampson, Robert J. 2011. "The Community." Pp. 210-236 in *Crime and Public Policy*, edited by

    J. Q. Wilson and J. Petersilia. Oxford: Oxford University Press.

Sampson, Robert J. and Byron Groves. 1989. "Community Structure and Crime: Testing Social

    Disorganization Theory." *The American Journal of Sociology*, Vol. 94: 774-802.

Sampson, Robert J., Stephen W. Raudenbush, and Felton Earls. 1997. "Neighborhoods and

    Violent Crime: A Multilevel Study of Collective Efficacy." *Science*, Vol. 277: 918-924.

Schofield, Gillian. 2001. "Resilience and Family Placement: A Lifespan Perspective." *Adoption*

    and Fostering Journal, Vol. 25: 6-19.

Schreck, Christopher J., Jean Marie McGloin, and David S. Kirk. 2009. "On the Origins of the

    Violent Neighborhood: A Stud of the Nature and Predictors of Crime-Type

    Differentiation across Chicago Neighborhoods." *Justice Quarterly*, Vol. 26: 771-794.

Schwartz, Jennifer. 2008. "Gender Differences in Drunk Driving Prevalence Rates and Trends:

    A 20-Year Assessment Using Multiple Sources of Evidence." *Addictive Behaviors*, Vol.

    33: 1217-1222.

Schwartz, Sharon and Ilan H. Meyer. 2010. "Mental Health Disparities Research: The Impact of

    Within and Between Group Analyses on Tests of Social Stress Hypotheses." *Social*

    Science and Medicine, Vol. 70: 1111-1118.

Serbin, L. A., Moller, L. C., Gulko, J., Powlishta, K. K., Colburne, K. A. 1994. "The Emergence

    of Sex Segregation in Toddler Playgroups." In C. Leaper (Ed.), *The Development of*

    Gender and Relationships (pp. 7-18). San Francisco: Jossey-Bass.

Shanahan, Michael J. 2000. "Pathways to Adulthood in Changing Societies: Variability and

    Mechanisms in Life Course Perspective." *Annual Review of Sociology*, Vol. 26: 667-692.

Shaw, Clifford and Henry McKay. [1942] 1969. *Juvenile Delinquency and Urban Areas*.

>Chicago: The University of Chicago Press.

Sherman, Aurora M., Jennifer E. Lansford, and Brenda L. Volling. 2006. "Sibling Relationships

>and Best Friendships in Young Adulthood: Warmth, Conflict, and Well-Being." *Personal
Relationships*, Vol. 13: 151-165.

Siebert, Darcy Clay, Dina J. Wilke, Jorge Delva, Michael P. Smith, and Richard L. Howell.

>2003. "Differences in African American and White College Students' Drinking
Behaviors: Consequences, Harm Reduction Strategies, and Health Information Sources."
Journal of American College Health, Vol. 52: 123-129.

Silveri Marisa M., Golfo K. Tzilos, Patricia J. Pimentel, and Deborah A. Yurgelun-Todd. 2004.

>"Trajectories of Adolescent Emotional and Cognitive Development: Effects of Sex and
Risk for Drug Use." *Annals of the New York Academy of Sciences*, Vol. 1021: 363-370.

Simon, Robin. 1995. "Gender, Multiple Roles, Role Meaning, and Mental Health." *Journal of
Health and Social Behavior*, Vol. 36: 182-194.

Simon, Robin. 2002. "Revisiting the Relationships among Gender, Marital Status, and Mental

>Health." *American Journal of Sociology*, Vol. 107: 1065-1096.

Singh, Susheela, Jacqueline Darroch, and Jennifer Frost. 2001. "Socioeconomic Disadvantage

>and Adolescent Women's Sexual and Reproductive Behavior: The Case of Five
Developed Countries." *Family Planning Perspectives*, Vol. 33: 251-258, 289.

Spoth, Richard, Tricia Neppl, Catherine Goldberg-Lillehoj, Tony Jung, and Suhasini Ramisetty

>Mikler. 2006. "Gender-Related Quality of Parent-Child Interactions and Early
Adolescent Problem Behaviors: Exploratory Study with Midwestern Samples." *Journal
of Family Issues*, Vol. 27: 826-849.

Stark, Rodney. 1987. "Deviant Places: A Theory of the Ecology of Crime." *Criminology*, Vol. 25: 893-909.

Steinberg, Laurence. 2007. "Risk Taking in Adolescence: New Perspectives from Brain and Behavioral Science." Pp. 55-59 in *Current Directions in Psychological Science*, L. Steinberg (Ed.). Blackwell Publishing.

Steinberg, Laurence, and Elizabeth Cauffman. 1996. "Maturity of Judgment in Adolescence: Psychosocial Factors in Adolescent Decision Making." *Law and Human Behavior*, Vol. 20: 249-272.

Stets, Jan E. And Richard T. Serpe. 2013. "Identity Theory." Pp. 31-60 in John DeLamater and Amanda Ward (eds) *Handbook of Social Psychology, 2nd Edition.* New York: Springer.

Svensson, Robert. 2003. "Gender Differences in Adolescent Drug Use: The Impact of Parental Monitoring and Peer Deviance." *Youth & Society*, Vol. 34: 300-329.

Tau, Gregory Z. and Bradley S. Peterson. 2009. "Normal Development of Brain Circuits." *Neuropsychopharmacology Reviews*, Vol. 35: 147-168.

Thrasher, F.M. [1927] 1963.*The Gang: A Study of 1,313 Gangs in Chicago*. Chicago: University of Chicago Press.

Tita, George E., Jacqueline Cohen, and John Engberg. 2005. "An Ecological Study of the Location of Gang 'Set Space.'" *Social Problems*, Vol. 52: 272-299.

Trucco, Elisa M., Craig R. Colder, Julie C. Bowker, and William F. Wieczorek. 2011. "Interpersonal Goals and Susceptibility to Peer Influence: Risk Factors for Intentions to Initiate Substance Use During Early Adolescence. *Journal of Early Adolescence*, Vol. 31: 526-547.

Turner, Heather and Paul A. Muller. 2004. "Long-Term Effects of Child Corporal Punishment on Depressive Symptoms in Young Adults: Potential Moderators and Mediators." *Journal of Family Issues*, Vol. 25: 761-782.

Turner, R. Jay, Blair Wheaton, and Donald A. Lloyd. 1995. "The Epidemiology of Social Stress." *American Sociological Review*, Vol. 60: 104-125.

Turner, R. Jay and Donald A. Lloyd. 1999. "The Stress Process and the Social Distribution of Depression." *Journal of Health and Social Behavior*, Vol. 40: 374-404.

Turner, R. Jay and William R. Avison 2003. "Status Variations in Stress Exposure among Young Adults: Implications for the Interpretation of Research on Race, Socioeconomic Status, and Gender." *Journal of Health and Social Behavior* 44: 488-505.

Ulbrich, Patricia, George J. Warheit, and Rick S. Zimmerman. 1989. "Race, Socioeconomic Status, and Psychological Distress: An Examination of Differential Vulnerability." *Journal of Health and Social Behavior*, Vol. 30: 131-146.

Upchurch, Dawn, Lené Levy-Storms, Clea Sucoff, and Carol Aneshensel. 1998. "Gender and Ethnic Differences in the Timing of First Sexual Intercourse." *Family Planning Perspectives*, Vol. 30: 121-127.

Vega, William A., Andres G. Gil, George J. Warheit, and Rick S. Zimmerman. 1993. "Acculturation and Delinquent Behavior among Cuban American Adolescents: Toward an Empirical Model." *American Journal of Community Psychology*, Vol. 21: 113-125.

Ventura, Stephanie J. and Brady E. Hamilton. 2011. "U.S. Teenage Birth Rate Resumes Decline." NCHS Data Brief, No. 58. Hyattsville, MD: National Center for Health Statistics.

Wakefield, W. David and Cynthia Hudley. 2007. "Ethnic and Racial Identity and Adolescent Well-Being." *Theory Into Practice,* Vol. 46: 147-154.

Warheit, George J., Rick S. Zimmerman, Elizabeth L. Khoury, William A. Vega, and Andres G. Gil. 1996. "Disaster Related Stresses, Depressive Signs and Symptoms, and Suicidal Ideation among a Multi-Racial/Ethnic Sample of Adolescents: A Longitudinal Analysis." *Journal of Child Psychology and Psychiatry*, Vol. 37: 435-444.

Warner, David F. and Tyson H. Brown. 2011. "Understanding How Race/Ethnicity and Gender Impact Age-Trajectories of Disability: An Intersectionality Approach." *Social Science and Medicine*, Vol. 72: 1236-1248.

Warner, L. A., R. C. Kessler, M. Hughes, J. C. Anthony, and C. B. Nelson. 1995. "Prevalence and Correlates of Drug Use and Dependence in the United States." *Archives of General Psychiatry*, Vol. 52: 219-229.

Warr, Mark. 2009. "Peers and Delinquency." In M. D. Krohn, A. J. Lizotte, and G. P. Hall (Eds.) *Handbook on Crime and Deviance* (pp. 383-404). New York: Springer.

Watkins, Daphne C., Rheeda L. Walker, and Derek M. Griffith. 2010. "A Meta-Study of Black Male Mental Health and Well-Being." *Journal of Black Psychology*, Vol. 36: 303-330.

Weaver, Scott R., JeeWon Cheong, David P. MacKinnon, and Mary Ann Pentz. 2011. "Investigating Ethnic Differences in Adolescent Alcohol Use and Peer Norms Using Semi-Continuous Latent Growth Models." *Alcohol and Alcoholism*, Vol. 46: 620-626.

Wells, EA, Morrison DM, Gillmore MR, Catalano RF, Iritani B, Hawkins JD. 1992. "Race Differences in Antisocial Behaviors and Attitudes and Early Initiation of Substance Use." *Journal of Drug Education*, Vol. 22: 115-130.

Wen, Ming, Louise C. Hawkley, and John T. Cacioppo. 2006. "Objective and Perceived Neighborhood Environment, Individual SES and Psychosocial Factors, and Self-Rated Health: An Analysis of Older Adults in Cook County, Illinois." *Social Science & Medicine*, Vol. 63: 2575-2590.

Williams, David R. and C. Collins. 2001. "Racial Residential Segregation: A Fundamental Cause of Racial Disparities in Health." *Public Health Rep.*, Vol. 116: 404-416.

Wilson, William Julius. 1996. *When Work Disappears: The World of the New Urban Poor.* New York: Alfred A. Knopf.

Wilson, William Julius. 2010. *More than Just Race: Being Black and Poor in the Inner City.* New York: W. W. Norton & Company.

Winant, Howard. 2000. "Race and Race Theory." *Annual Review of Sociology*, Vol. 26: 169-185.

Wray, Linda A., Duane F. Alwin, and Ryan J. McCammon. 2005. "Social Status and Risky Health Behaviors: Results from the Health and Retirement Study." *The Journals of Gerontology: Series B*, Vol. 60: S85-S92.

Wu, Li-Tzy, George E. Woody, Chongming Yang, Jeng-Jong Pan, and Dan G. Blazer. 2011. "Racial/Ethnic Variations in Substance-Related Disorders among Adolescents in the United States." *Archives of General Psychiatry*, Vol. 68: 1176-1185.

Zimring, Franklin E. 1998. *American Youth Violence*. Oxford, England: Oxford University Press.