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The Relationship Between Risk and Resilience, Racial Microaggression, Ethnic Identity, and Well-Being in Young Adulthood

Shandra S. Forrest-Bank
University of Denver

THE RELATIONSHIP BETWEEN RISK AND RESILIENCE,

RACIAL MICROAGGRESSION, ETHNIC IDENTITY,

AND WELL-BEING IN YOUNG ADULTHOOD

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Shandra S. Forrest-Bank

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Advisor: Jeffrey M. Jenson, Ph.D.

Author: Shandra S. Forrest-Bank
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ABSTRACT

Young adulthood is the developmental period characterized by the transition from adolescence to the roles and responsibilities of adulthood. While most young adults experience positive growth and accomplishments, many others struggle, especially those with disadvantaged childhoods who lack financial, social, and emotional resources. Substance abuse, crime, educational failure, unemployment, and mental health problems are common among young adults. Unfortunately, many of these problems occur at disproportionately high rates for young people of color. Considerable knowledge of the child and adolescent risk and protective factors that contribute to the onset of problem behavior or to well-being during adolescence has been developed. However, evidence from longitudinal studies spanning childhood, adolescence, and adulthood indicates that little is known about the influence of early risk and protective factors on the onset, remittance, or persistence of problem behavior or well-being during adulthood. In addition, few studies have examined the effects of racial discrimination and ethnic identity on problem behavior and well-being. This study examined the relationship between child and adolescent risk and protective factors for problem behavior, perceived racial and ethnic microaggression, ethnic identity, and the young adult outcomes of self-

efficacy, substance abuse, and criminal intention. Data were collected from a randomly selected sample of college students (*N*=486; *Mean Age*=24) attending an urban college in Denver, Colorado. Findings from structural equation modeling revealed that the early onset of problem behavior was significantly related to both substance abuse and criminal intentions during young adulthood. Childhood school engagement was positively related to college self-efficacy, and negatively related to criminal intentions. Perceived racial microaggression and ethic identify were significantly related to academic self-efficacy. One-way analysis of variance tests revealed significant differences in mean scores on the microaggression and ethnic identity scales between racial and ethnic groups. All nonwhite groups reported significantly higher levels of microaggression than their white peers. Mean cognitive ethnic identity scores were significantly higher for black and Latino/Hispanic subjects compared to Asian and white participants. The implications of these findings for practice, policy, and research with young adult populations are identified.

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CHAPTER ONE

INTRODUCTION

Young adulthood has recently been recognized as a distinct stage of human development. The challenges of young adulthood have also emerged as an important focus of research and policy efforts in the past decade. This chapter represents an overview of young adulthood and introduces the theoretical explanations of risk and resilience and life course that provide an integrated conceptual framework for explaining outcomes that occur during young adulthood, and are the foundation for the current study. Two gaps in the literature are revealed: 1) inadequate attention is given to understanding the causes and correlates of well-being among young adults; and 2) existing studies and theories aimed at understanding young adulthood fail to directly examine the influence of racial disparity and perceived discrimination on young adults. The concepts of perceived racial discrimination, and specifically, racial microaggression, are reviewed as potential risk factors impacting young adult outcomes. In addition, ethnic identity is introduced as a potential mediator between risk factors, including microaggression and measures of young adult well-being. The chapter concludes with a statement of purpose and methodology of the study.

Young Adulthood

Young adulthood spans the developmental transition between adolescence and the roles and responsibilities of adulthood. The milestones that mark adulthood generally involve establishing a career, financial independence, living outside the parental home,

developing intimate relationships, and becoming parents. This time period, to a great extent, is when young people establish their roles and eventual contributions they will make in society, making it crucially significant for the health of the entire nation. This stage of development is characterized by change and exploration (Arnett, 2000) as young adults are also in a process of identity formation. There is a broad range of what is considered normal and acceptable during this developmental stage. People reach these milestones in different orders. For example, some people immediately begin to engage in adult responsibilities such as parenting, living on their own, and/or employment tracks. Some go straight into private four-year colleges. Yet others seemingly delay adulthood. They might travel the world, or they might live with their parents and have minimal employment responsibilities. Thus, there is considerable variation in the pathways that are taken by individuals during young adulthood.

A body of research (Settersten, Furstenberg, & Rumbaut, 2005; Osgood, Foster, Flanagan, & Ruth, 2005) has analyzed demographic, social, and economic patterns during the transition to young adulthood using large national cross-sectional population survey and census data. Findings from these studies have yielded important descriptive explanations of common young adult pathways. The life stage of young adulthood has now emerged as a reflection of the current socioeconomic conditions of the United States. In addition, similar to other life stages of human development, it is also defined by cultural context. Reflecting on the advent of adolescence as a unique life stage provides illustration. Adolescence was not recognized as a distinct life stage until the early twentieth century when the economic structure of the country changed from agricultural to industrial. This shift brought a new emphasis on higher education and training because it became a necessary part of preparing

young people for the responsibilities of adulthood (Furstenberg, Rumbaut, & Settersten, 2005). Thus, the concept of adolescence emerged to describe a short life stage when young people in their late teens are in a state of semi-autonomy; a time when many would leave their parents' homes and establish roles in the labor force (Furstenberg et al., 2005).

Significant changes in adolescence have occurred over the past several decades. For example, the period of time that adolescence as a life stage spans has become longer. The physiological, pubescent changes in a person that mark the onset of adolescence come earlier than they did a century ago (Furstenberg et al., 2005). In addition, peer relationships have taken a far more central role in young persons' lives. And numerous social problems have emerged that are specific to adolescent development. Adolescence has therefore become recognized as a stage that presents unique challenges, and one that requires increased social responsibility for the well-being of adolescents (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004). Numerous disciplines have subsequently brought focus to addressing the needs and problems associated with adolescence (Furstenberg et al., 2005).

Meanwhile, the specific end point of the adolescent life stage has become increasingly ambiguous. From the end of the Depression until the 1960s, young people left home at earlier ages, usually to marry and establish their own households. As the demand for higher education increased, so did increases in school enrollment, which caused delays in starting careers, seeking financial independence, and marriage. The concept of the transitional period of young adulthood began to take shape around this time, when theorists such as Erikson (1950, 1968), Levinson (1978), and Keniston (1971) described the period between adolescence and young adulthood as a time of role experimentation (Arnett, 2000).

Over the second half of the century, the age of leaving home increased substantially. In 2000, young men and women between ages 25 and 29 were 32% and 54% more likely than before 1980 to be single, attend school, or live with a parent. Meanwhile, with post-industrial capitalism and huge population increases, the 1990s saw a major decline in the employment rate, a pattern that has persisted (Matsudaira, 2006). In general, young people leave home at an older age and are still dependent on financial assistance from their parents while they navigate these milestones. Many young adults now juggle work and school, postpone marriage, and delay having children (Fussell & Furstenberg, 2005).

These individual and social patterns suggest that a prescribed period of adolescence is no longer sufficient to define and explain developmental processes between childhood to adulthood. There is an additional life stage of young adulthood, characterized by the transition to adulthood. The age range for this developmental period is one of its unique characteristics. For some, young adulthood begins and ends during adolescence. Other people experience an extended transition into their mid-30s.

The significant life events that prescribe the roles and expectations for adulthood in the United States are well-established (Sampson & Laub, 1990). Young people leave their parents' homes, establish careers, become financially stable, and start families of their own, and usually in this order (Fussell & Furstenberg, 2005). In fact, they are similar to those in most other countries, and have remained fairly stable over modern history (Furstenberg, Rumbaut, & Settersten, 2005). Meeting these conventions of adulthood ultimately defines success in adulthood (Furstenberg et al., 2005).

How these roles and expectations are accomplished, and how long it takes to transition to adulthood have changed dramatically in recent history (Arnett, 2000; Furstenberg et al., 2005). As a result of these changes, the socialization of norms associated with young adulthood has become less standardized. Substantial skills, maturation, and resources are required to achieve and maintain adult roles and responsibilities. However, the pathways toward establishing them are varied and ambiguous, with little structure or guidance, especially for those who do not readily access or complete a college education. The general trend for young adults in our current socioeconomic culture is to leave home at an older age, and to maintain full or partial financial dependence on their parents while navigating the transition to adulthood. In addition, marriage and parenthood are not necessarily normative in all cases or may be frequently delayed (Arnett, 2000; Fussell & Furstenberg, 2005). Many young adults are unsure of where they stand with regard to their status as an adolescent or adult (Arnett, 2000). There is considerable variation in the process of accepting responsibilities and independence, developing interdependence in intimate relationships, and establishing a sense of identity. There is also a tendency toward risk-taking and sensation-seeking that is often part of identity exploration (Arnett, 2000; Jessor, Donovan, & Costa, 1991; Shanahan, Porfeli, Mortimer, & Erickson, 2005). Studies investigating how young people define adulthood suggest that many individuals feel that they are adults in some ways, but still adolescents in other ways according to both the establishment of role expectations, as well as more individual emotional markers (Arnett, 2000; Molgat, 2007; Shanahan et al., 2005).

Financial and social resources, as well as exposure to various rules and norms of their families and other social institutions they participate in, have a major impact on the

ability of young adults to successfully navigate the transition to independence and well-being (Fussell & Furstenberg, 2005; Osgood et al., 2005). It is estimated that most parents of young adults spend approximately 12% of their earnings on their children (Furstenberg et al., 2005). However, the level of assistance families can provide to their young adult children depends directly on their available resources. Families with greater wealth are obviously in a better position to provide assistance to their children. Parents of many young adults, however, are unable to provide the financial or emotional resources needed during the transition to adulthood (Furstenberg et al., 2005). In addition, young people who do not grow up with role models and guidance that promote efficacy and success are at a disadvantage to those who do. By the same token, young people who have been exposed to negative role models and norms that promote non-normative and/or antisocial behavior, and/or have endured traumatic experiences, are more likely to experience problems as they strive to establish successful adulthoods. Young adulthood is particularly challenging for those young people who have children outside of marriage and whose opportunities for post-secondary education and career choice are limited (Osgood, Ruth, Eccles, Jacobs, & Barber, 2005; Sandefur, Eggerling-Boeck, & Park, 2005).

At even further disadvantage are those youth who become involved in systems of care such as mental health, substance abuse, or juvenile justice. Older adolescents receiving such services often depend on the resources afforded to them through systems that tend to be wrought with inadequate funding and/or practices that lack an evidentiary base. When they become adults, however, these resources are no longer available, and they often face the challenges of young adulthood without continuity of support. The lack of support makes them especially vulnerable during this life stage (Osgood et al., 2005).

The future of any society is shaped largely by the ability of young people to navigate the transition to adulthood, since it is the time when people's roles and careers are at their most formative (Jessor, Donovan, & Costa, 1991). Most young people require some support and resources beyond their own means, yet for those whose needs tend to be the most numerous and complex, those supports and resources are often not available. Not surprising, increasing evidence suggests that many young adults struggle during this developmental period. For example, prevalence rates of mental illness, substance use disorders, and criminal justice involvement are at their highest during young adulthood (ages 18–30) (Child Trends Data Bank, 2010; Cusick, Courtney, & Havlicek, 2010; National Center for Health Statistics, 2009). A number of statistical trends show disproportionately high rates of these problems for economically disadvantaged and nonwhite populations (Child Trends Data Bank, 2010). These data raise serious concern about the capacity of many individuals to transition successfully to the roles and expectations of adulthood (Wald, 2005).

Conversely, those with the best chance of a successful transition to adulthood are young people who attend and live at four-year college campuses. These colleges provide an ideal support structure for the semi-autonomous status of young adulthood. In most cases, these young people are able to complete college degrees, which move them through a linear process aimed at a successful career path. Access to college is difficult, however, for those with minimal resources, those with limited academic success in high school, and those who already have adult responsibilities such as children and financial burdens. For many of these young people, public post-secondary education is an important option toward obtaining an education that is affordable and can be structured around their other

responsibilities. Many young people pursuing public college also are disadvantaged by exposure to earlier and current life experiences and circumstances that are associated with negative outcomes. For many, their pursuit of higher education is an actual act of resilience. Further, their well-being and efficacy during college is crucial in determining their success in adulthood.

In sum, young adulthood is clearly a unique and challenging developmental period. There is a great need to recognize the importance of well-being in young adulthood and to mobilize and provide adequate supports. In order to do so, we need to understand how both positive and negative outcomes occur during young adulthood. Risk and resilience and life course theories provide theoretical frameworks to help explain factors that impact differential outcomes and pathways in young adulthood. The next section discusses briefly these two theories.

Theoretical Frameworks for Understanding Young Adult Outcomes

Pathways to young adulthood are complex and only partially understood. Efforts by risk and resilience and life course theory scholars have made enormous strides toward identifying factors in childhood and adolescence, as well as describing differential pathways to antisocial or problem behavior in adulthood versus more normative, successful pathways (Farrington & Hawkins, 1991; Jessor, Donovan, & Costa, 1991; Moffitt, 1993; Sampson & Laub, 1997; Werner, 1993). There remain major gaps, however, in what is known about the interaction of individual, social, and environmental factors that impact young adult well-being and success *during* young adulthood. The theoretical frameworks

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of risk and resilience and life course theory provide a basis for research pursuits aimed at explaining these dynamics during this developmental life stage.

Risk and Resilience

The risk and resilience framework seeks to explain the correlates and mechanisms that are associated with a variety of negative or positive outcomes experienced by children and youth over the course of development (Hawkins, Catalano, & Arthur, 2002; Keyes, 2004). Principles of risk and protection are key to the framework. ***Risk factors*** are prior experiences or influences that increase the likelihood of the onset, frequency, or persistence of non-normative negative outcomes such as criminal and/or violent behavior, substance abuse, and dropping out of school (Farrington, 2006; Jenson & Fraser, 2011). ***Protective factors*** can be defined as individual, social, and environmental resources that minimize the impact of risk and reduce the probability of undesirable outcomes (Jenson & Fraser, 2011). Finally, ***resilience*** describes the process that occurs when children adapt and function well despite the presence of risk and significant adversity (Edwards, Mumford, Serra-Roldan, 2007). Sometimes resilience appears to be a matter of the summation of protective factors outweighing risk factors, yet investigators also note interaction effects between risk and protective factors that result in resilience (Kraemer, Stice, Kazdin, Offord, & Kupfer, 2001). For example, a child who is exposed to risk situations in which he/she is offered drugs yet has the skills and self-esteem to refuse them, is likely to emerge with a high level of self-efficacy. From this perspective, one must experience risk to have resilience.

Initially "resiliency" was explained as the strength of character in those who manage to surmount adversity (Edwards et al., 2007). The evolution of the construct,

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however, has arrived at the understanding that resilience is not an observed trait. Rather, it is a process that unfolds, not about what happens at the moment of the experience, but based on what coping skills and mental processes are engaged, as well as how the environment responds to the person after the situation (i.e., supportive or rewarding for coping) (Rutter, 2007). Several dimensions to the construct of resilience have been identified, including the ability to persevere despite adversity, the ability to function within stressful situations, and recovering from trauma (Jenson, Alter, Nicotera, Anthony, & Forrest-Bank, in press).

Framed within the ecological model, risk and resilience allows for the whole person to be understood within a constant exchange between the interrelated systems of which they are a part (Jenson & Fraser, 2011). Integral to the model is a public health conceptualization of prevention and intervention, emphasizing the idea that if early precursors can be identified, they can be addressed and negative outcomes thus averted (Jenson & Fraser, 2011). A range of interventions targeting young children have been developed from the strong empirical basis of risk and resilience; many demonstrating some efficacy.

This focus on early intervention, however, is not sufficient to fully understand subsequent outcome during young adulthood. The prevalence of problems among young adults can only partially be explained by early precursors, and interventions based on this knowledge have had limited impact. In fact, young adult outcomes are frequently not predicted adequately from knowledge on evidence of early factors. There is a need for research that explains the factors, both those that occurred during childhood and those occurring in the current social ecology, pose risk and protective influence on outcomes for

people during young adulthood. The current study uses the risk and resilience model to examine risk and protective factors associated with well-being in a young adult sample of college students. Life course theory, described below, is congruent with risk and resilience. These two frameworks complement each other and together provide further conceptualization of how both childhood experience and ongoing exposure to risk and protective factors are integral to shaping young adult trajectories.

Life Course Theory

Life course theory provides a perspective for understanding peoples' lives in the contexts of families, society, and historical time (Kok, 2007). According to a life course perspective, everyone has their own unique path in life that is shaped by the personal, emotional, and personal choices they make, as well as by coincidental circumstances in which they find themselves. Developmental change is understood as a continuous process throughout life, including adulthood (Benson, 2001), and there are patterns that people tend to follow in the life course, marked by events and stages that occur. Life course perspective examines the patterns and variations in peoples' experiences as they age (Benson, 2001).

Central to life course theory is the construct **life course**. It is defined as the sequence of positions of a particular person in the course of time, and analysis of the life course describes the frequency and timing of changes and positions of groups in the social hierarchy (Kok, 2007). **Trajectories** are pathways of development over the life span (Kok, 2007). Biological, psychological, and social trajectories are primary domains of human functioning and are interconnected and have interactive effects on one another (Benson, 2001). Trajectories are marked by **transitions,** which are life events, characterized by

change, that are embedded over time (Kok, 2007; Sampson & Laub, 1997). People generally follow normative patterns in their lives that are shaped by the social, cultural, and historical contexts in which they exist. These patterns are largely shaped by the expectations of the proper sequence of transitions, which to a large extent have been institutionalized in the form of social policies (Kok, 2007). ***Turning points*** occur when substantial change in the directions of one's life takes place (Kok, 2007). Turning points may be positive or negative because they require decision-making or offer opportunities when life trajectories can be directed to more adaptive or maladaptive paths. A range of variables, particularly interactions with the environment and interpersonal relationships, are evident in any given transition (Sampson & Laub, 1997).

Elder, Johnson, & Crosnoe (2003) presented five essential principles of life course theory. The first principle, ***life-span development,*** suggests that the life course is a cumulative process, and it is almost impossible to understand behavior and choices without studying the life course as a whole. The second principle, ***agency,*** states that an individual determines their own life course within given constraints and opportunities. To understand behavior, we must understand a person's plans, and the decisions that are made out of survival. Third is the principle of ***time and place.*** Life course analysis is devoted to understanding the interaction between one's life course and historical context, demographics, economics, and institutional and cultural changes that occur over time. The fourth principle, ***timing,*** refers to the specific point in the life course in which transitions take place. Finally, the fifth principle is ***linked lives,*** which emphasizes that life courses are connected to other life courses, particularly in the context of families (Kok, 2007).

Cumulative continuity and self-selection are important to distinguish from one another in the life course theory. The propensity for behavior at one point in life to influence later opportunities is generally labeled as cumulative continuity while self-selection refers to the tendency of individuals to choose experiences and behaviors that fit with established internal traits or dispositions (Benson, 2001). Finally, ontogenesis refers to biological underpinnings that influence the life course (Benson, 2001).

From a life course perspective, childhood and adolescent risk and protective factors are best understood as integral to individual trajectories. The theory explicates that as people develop over the life course, they are shaped by a multitude of factors and experiences. Some of these factors have a powerful and direct impact on young adult trajectories. For example, relationships we have with our parents and the structure of our family dramatically affect people's lives (Benson, 2001). The life stage, or age and developmental point an individual is in when an event occurs, influences how he/she is impacted (Benson, 2001). To illustrate, parental divorce is likely to impact an infant much differently than an adolescent. In addition, life course theory helps explain how there is the potential for cumulative advantage or disadvantage since exposure to risk and protective factors at one stage is likely to lead to exposure to other certain factors. Furthermore, although risk and resilience research studies do not often focus on environmental factors, the ecological perspective that the theory is grounded in parallels the proposition of life course theory that broader social conditions and historical events also influence the life course (Benson, 2001).

Both risk and resilience and life course theory offer important contributions to explaining outcomes in young adulthood. Together, these theories provide a comprehensive

framework from which to view young adulthood. However, they also fall short along several important dimensions. The limitations and integration of risk and resilience and life course theories are considered next.

<p style="text-align:center">Limitations of the Risk and Resilience and Life Course Theory Literature</p>

The risk and resilience model focuses on identifying and examining specific factors that impact the directions of an individual's trajectory. At the same time, life course theory focuses on the patterns and variations that the trajectories tend to take. The risk and resilience literature offers strong empirical support to explain how early childhood and adolescent factors impact people's later trajectories. Yet, childhood risk and protective traits alone do not account fully for outcomes in young adulthood. Thus, life course theory is important because it recognizes that exposure to later life experiences also have a powerful impact on outcomes during young adulthood.

Young people transitioning from adolescence to adulthood establish new relationships and interact with different institutions and systems within their social ecologies. As noted earlier, young adulthood begins when high school ends and/or a person turns 18 years of age. Cumulative risk and protective experiences are brought into the transition to young adulthood, and shape the direction of the trajectories. However, it is important to recognize that social and institutional interactions during young adulthood expose individuals to new and additional forms of risk and protection. If we are able to identify empirically the specific risk and protective factors that are germane to young adults, we may be able to better target such factors and increase the efficacy of prevention and intervention efforts. It is encouraging to note that recent research efforts grounded in

life course and risk and resilience frameworks have begun to describe the various pathways of young adults transitioning into adult roles and responsibilities as well as some of the risk and protective factors that shape those pathways (Osgood et al., 2005; Settersten et al., 2005; Guo, Collins, Hill, Hawkins, 2001; Mason, Hitch, Kosterman, McCarty, Herrenkohl, Hawkins, 2010). However, relatively little is still known about how risk and protective factors impact outcomes for young adults.

Knowledge of the risk and protective factors that lead to differential outcomes during young adulthood between white and nonwhite people represents an important and neglected area of research. Investigators acknowledge the presence of risk factors for problem behaviors that are associated with nonwhite race and aim to specify the impoverished conditions that many nonwhite children are exposed to in childhood. For example, there is ample evidence to indicate that race and ethnicity are associated differently with many risk factors (Farrington, 2006; Herrenkohl, Maguin, Hill, Hawkins, Abbott, & Catalano, 2000). Furthermore, life course theorists describe dynamics of oppressive social and historical forces and discuss the cumulative disadvantage that nonwhite individuals encounter as they interact with social institutions and various people (Sampson, 1990). Life course studies also provide evidence that race is related to differential pathways between white and nonwhite groups. There is a dearth of research, however, that examines patterns or associations between race and outcomes during young adulthood. Thus, it appears that neither risk-based or life course models go far enough in their empirical examination of how race, ethnicity, and discrimination may affect young adult well-being.

Thus, in the current investigation, young peoples' perception of racial discrimination is identified as a potential risk factor for several outcomes during young adulthood. In addition, level of ethnic identity is as a potential protective factor in impacting outcomes of well-being in young adulthood. Constructs assessing discrimination and ethnic identity are viewed as critical in understanding young adult outcomes for several compelling reasons. First, numerous studies report that many people of color, across many age groups, experience acts of racial discrimination (Brown, 2000; Rivera, Forquer, & Rangel, 2010; Sue, 2010). Evidence suggests that such discrimination has a negative impact on well-being (Williams, Neighbors, & Jackson, 2003; Krieger & Sidney, 1996; Paradies, 2006; Smith, 1985). Meanwhile, ethnic identity has been associated with positive emotional and behavioral outcomes in a number of studies, suggesting that it may be an important form of protection against the negative impacts of discrimination. Unfortunately, few studies have fully considered the influence of racial discrimination and ethnic identity in the context of risk and resilience and life course models during the developmental period of young adulthood. This study aims to fill this gap by examining the complex patterns found among risk, protection, perceived racial discrimination, and ethnic identity in young adulthood. Concepts of perceived racial discrimination and ethnic identity are reviewed briefly below.

Racial Discrimination

The definition of "race", classified by pseudo-biological categories based on skin color, is socially constructed and changes with historical context (Lopez, 1994; Payne, 1998). For example, as segregation grew in the South at the turn of the twentieth century,

and laws formed to draw lines between what it meant to be white versus black, the U.S Census categories shifted to no longer include "mulatto". Current discourse about the census categories struggles to determine if Latino/Hispanic should be a racial category or ethnic as it is now (Andersen & Collins, 1995). The labels actually group a variety of ethnic groups from all over the world (as do all of the racial categories). The U.S. Census currently allows for selection of Hispanic or Latino as an ethnic group, in addition to asking people of those groups to choose from the racial categories. Many people from these groups do not see themselves as members of any of the racial group choices they are given (Sue, 2010). This controversy is a reflection of how Hispanic and Latino experience their place in society, and how the categories are formally used to reinforce social stratification.

The racial and ethnic categories, as artificial and subjective as they may be, have very real implications in our society, as they are the basis of a system of privilege. Racism and oppression that reinforce power and privilege to whites and marginalization to everyone else remains intrinsic to our culture, evidenced by the discrepancies in almost every measure of success and well-being in our society. Racial discrimination and disadvantage are found in housing lending and residential segregation (Popkin, 2007), employment opportunities, health care (Smedley & Smedley, 2005), and education (Clark, Anderson, Clark, & Williams, 1999; Kreiger, 1990). People of color are frequently perceived negatively, assigned inferior social status, and marginalized socially, culturally, politically, and economically (Sue, 2010). In addition, young adults of color are disproportionately living in poverty; 13% of white persons live below the poverty line, while 27% of blacks, 24% of Latino/Hispanics, and 16% of Asian young adults meet poverty thresholds (U.S. Census Bureau, 2009).

Exposure to discriminatory experiences has been found to have a significant impact on behavioral and emotional outcomes among nonwhite groups (Feagin, 1991; Sue, 2010; Utsey, Ponterotto, Reynolds, & Cancelli, 2000). Negative impacts of racial discrimination on physical health (Harrell, Hall, Taliaferroc, 2003; Williams et al., 2003; Krieger & Sidney, 1996; Smith, 1985) and on mental health, self-esteem, and well-being (Roberts; Roberts & Chen, 1997; Joiner, Perez, Wagner, Berenson, & Marquina, 2001) are well-documented. From a public health perspective, racial discrimination is clearly a risk factor for a number of health and mental health problems. This is explicit in the Surgeon General's 1999 report to the nation on mental health, which states:

> "Racial and ethnic minorities in the US face a social and economic environment of inequality that includes greater exposure to racism and discrimination, violence, and poverty, all of which take a toll on mental health.... Living in poverty has the most measurable effect on the rates of mental illness. People in the lowest strata of income, education, and occupation (known as socioeconomic status) are about two to three times more likely than those in the highest strata to have a mental disorder.... Racism and discrimination are stressful events that adversely affect health and mental health (U.S. Surgeon General [1999], "Chapter 2: Culture Counts", para 3)

Systemic, institutionalized racism is reinforced in numerous practices that are integral to everyday life and accepted as the norm (Andersen & Collins, 1995). As the sociocultural context changes, so do the forms of discrimination. Understanding the specific nature of racial discrimination in recent decades is crucial toward understanding its impact. Most scholars and citizens would agree that discrimination is most often no longer overt and/or violent in nature. Rather, current racial discrimination tends to be more subtle, characterized by displays of unintentional acts that are defined as *racial microaggression* (Sue et al., 2007). Examining the impact of these forms of discrimination on well-being during young adulthood is only minimally addressed in the research literature. Thus,

examining the influence of microaggressions on young adults is an important area of investigation in the ongoing effort to understand behavioral, emotional, and educational outcomes in young adulthood. The concept is further explained below.

Microaggression

The term "microaggression", first developed by Pierce (1970), is used widely to describe how current racial oppression occurs in society (Davis, 1989). Sue and colleagues (2007) identify three categories of microaggression: 1) microassaults; 2) microinsults; and 3) microinvalidations. ***Microassaults*** are acts of racism or discrimination that are enacted knowingly toward others. For example, physical or verbal assaults that consist of racist content and intend to inflict harm. The other two forms of microaggression tend to be unintentional and more subtle. ***Microinsults*** are messages relayed interpersonally or environmentally that relay negative, degrading, or exclusionary messages (Sue et al., 2007). Congratulating someone for being the exception to what is stereotypical or positionally expected due to skin color is an example of a microinsult. The third type of microaggression is ***microinvalidation***. This occurs when people say that they do not "see color", as though racism does not exist. This type of thinking is perpetuated in the American myth that everyone has an equal chance to succeed if they just work hard enough. Such myths can obscure racism and oppression and may seem like inequities in our society are due to the inferiority of people who simply do not apply themselves hard enough to succeed. The danger in such a proposition is that it fails to acknowledge the presence and influence of structural oppressive forces in our society (Sue, 2010) that reinforce the disadvantage and marginalization of people of color.

Incidents involving acts of microaggression are often complex in nature and elicit a range of responses. For example, people may struggle to determine if what they just experienced was actually racist or discriminatory. In some cases, people may have emotions triggered from prior experiences, or they may blame themselves or question why they are sensitive to acts that were perhaps unintentional in nature. They might become angry or mistrustful. They might adapt and "get used to it" and learn to expect that is part of what it means to be of color in America. Alternately, they may become depressed or helpless. Regardless, the impact of microaggressive behavior can be very destructive (Sue, 2010).

While there are some similarities in the discriminatory experiences of people from all nonwhite groups, each group has its own cultural values and practices, as well as distinct stories of historical oppression. Research suggests that the nature of the impact of discrimination differs between racial groups, pointing to the importance of separately examining the relationships between discrimination and outcomes of well-being for each group (Sue, 2010).

Also important, how individuals are impacted by microaggression is likely to be impacted by other life experiences and circumstances. Ethnic identity appears in the discrimination literature as a factor that may moderate the impact of perceived discrimination and serve as a protective characteristic against discrimination. The construct of ethnic identity is next discussed.

Ethnic Identity

Ethnic identity is defined as the part of an individual's self-concept that comes from membership of a social group (or groups) combined with the value and emotional significance attached to that membership (Phinney, 1990; Tajfel, 1981). An individual's ethnic identity develops over the life course. The formation of ethnic identity has been described as a complex process that involves an ongoing exchange between the internal view one has of oneself with the external perceptions others possess based on his/her race/ethnicity (Nagal, 1994).

Nagal (1994) asserts that ethnic identity is a construction of the specific social context, and thus varies depending on the situation. People often choose which part of their identity to present or which label to ascribe themselves based on what seems most favorable to them in the particular moment combined with categories are available in that particular moment (Nagal, 1994). In short, ethnic identity has been consistently found to be important to people across all ethnic groups (Phinney, 1992).

Phinney (1992) describes two dimensions of ethnic identity that are the basis for the measurement tool used in the current study to assess ethnic identity. The first dimension is a **cognitive** aspect of identification as a group member. The other is a more affective s**ense of belonging,** which involves the extent to which a person feels attachment and pride associated with that identification.

Some studies have found that ethnic identity has a mediating role in how perceived discrimination impacts well-being (Umaña-Taylor & Updegraff, 2007; Yip, Gee, & Takeuchi, 2008). In addition, ethnic identity may be an important protective trait in buffering the impact of perceived discrimination and other known risk factors that occur

both earlier in the life course, and during young adulthood. The current study assessed the impact of microaggression and ethnic identity on the well-being of young adults using a model grounded in risk and resilience and life course perspectives. Key concepts of well-being are described below.

Young Adult Well-Being

Important measure of health and success during the transition to adulthood include engagement in antisocial attitudes and behaviors, and educational engagement and attainment. It is likely that young adults with favorable outcomes along these indicators will more likely successfully transition to roles and responsibilities of adulthood. On the other hand, compromised mental health, engaging in crime, and/or not doing well in school are all likely deterrents to positive well-being during young adulthood.

According to the risk and resilience literature, the outcomes of antisocial behaviors and education are all likely to be impacted by risk and protective factors that occurred during childhood and adolescence. Substance abuse and crime are common antisocial behavioral outcomes that distinguish negative from positive trajectories in risk and resilience and life course models. Such outcomes are at their greatest prevalence during young adulthood. From the life course perspective, risk and protective factors occurring in the current life stage are also likely to impact measures of well-being. Explanations of the constructs measured for young adult well-being follow.

Substance abuse disorders by definition involve loss of control, impaired functioning, and often cause people to neglect things that are important to them (National Institute on Alcohol Abuse and Alcoholism, 1995). Often people with substance abuse

problems suffer from health consequences as well as material and social losses. (Clift, Wilkins, & Davidson, 1993).

Criminal intent involves attitudes toward violence, entitlement, antisocial intent, and social connection with people who commit crime, and has been shown to be the greatest predictor of criminal behavior (Backstrom & Bjorklund, 2008). Criminal behavior is also associated with substance abuse, depression, and suicidal behavior (National Center for Health Statistics, 2009). Once someone has spent time in jail, they will likely confront substantial barriers to establishing the roles of adulthood and well-being (Brondolo, Brady, Thompson, & Tobin et al., 2008). Criminal attitudes and behaviors are powerful indicators of not being bonded to social institutions and norms in society (Sampson & Laub, 1997).

Post-secondary educational attainment is one of the most formative variables impacting the quality of young people's lives in the United States, because establishing a career that brings personal satisfaction and sufficient income requires skills and knowledge beyond what is attained through high school completion (Furstenberg et al., 2005; Orfield, Losen, & Wald, 2004; Sandefur et al., 2005). For many young people, the presence of risk (i.e., academic failure, substance abuse, and/or delinquency) has led to problem behavior and resulted in less opportunity to earn a college education. For other young people, factors, such as early parenthood and responsibilities of employment, seriously complicate the ability to earn a college education, regardless of how motivated they are to go (Furstenberg et al., 2005). All of the research participants in the current study are young adult college students, so indicators of college success are particularly relevant.

A young person's sense of *college self-efficacy* is an additional important measure of well-being for young adult college students. Self-efficacy as developed by Bandura

(1989) is defined as the belief in one's own ability to organize thoughts and actions to accomplish specific objectives in a variety of circumstances. Academic self-efficacy is, therefore, the confidence that a student has in her or his ability to successfully perform college tasks and assignments (Solberg, O'Brien, Villareal, Kennel, & Davis, 1993). The current study measures the sense of efficacy to manage tasks related to course engagement and completion (Solberg et al., 1993).

Indicators of antisocial behavior and college success are important measures of young adult well-being and markers of their place on positive or negative trajectories. The current study intends to add to the literature by demonstrating how risk and protective factors, including microaggression and ethnic identity, impact these outcomes during young adulthood.

Study Purpose

The current study examines the relationships among racial discrimination in the form of microaggression, ethnic identity, risk and protective factors, and well-being of young adult students attending an urban public college. Perceived racial microaggression and ethnic identity are studied as potential risk and protective factors for well-being in young adulthood. Three main questions are addressed: 1) Do childhood risk and protective traits variables that are known to predict behavioral and emotional outcomes in children and adolescents demonstrate similar impact on young adults? 2) What is the impact of perceived racial microaggression and ethnic identity on well-being of young adults after controlling for the influence of risk and protective factors? 3) Are there differences in the

relationships between these variables for different racial groups? Figure 1.1 presents a conceptual model, which describes the general relationships under study.

Figure 1.1
Conceptual Model of Current Study
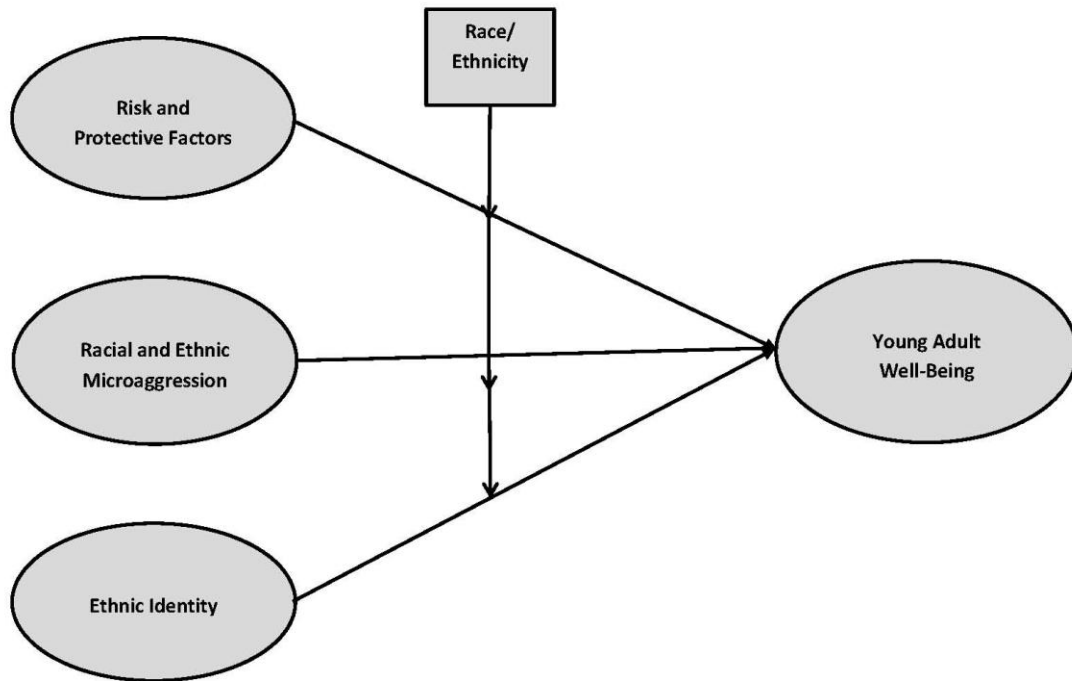
Chapter Summary

This chapter introduced the phenomenon of young adulthood as a distinct developmental life stage during which the transition to the roles and responsibilities of adulthood occur. An argument was presented for the need for additional research aimed at identifying factors that impact young adult well-being and other outcomes. The theoretical perspectives of risk and resilience and life course were presented as an integrated framework for understanding the causes and correlates of outcomes in young adulthood. The lack of research based on these theoretical perspectives to address the discrepancies of

outcomes for people of color and the risk and protective factors occurring not only in childhood, but current social ecologies, are identified as gaps that the current study addresses. Finally, the constructs of perceived discrimination, in particular microaggression and ethnic identity, were presented and explained. The chapter concluded with a brief statement of the purpose and summary of the methodology of the current study. A review of the relevant literature is presented in the following chapter.

CHAPTER 2

REVIEW OF THE LITERATURE

This chapter reviews the literature that is relevant to the research study. First, the need to develop programs of research to better understand young adulthood is set forth with a review of prevalence data and a discussion of the systems and policies that currently exist to support young adults. The next section focuses on the theoretical frameworks of risk and resilience and life course, which guide the study. The empirical basis for these theories is discussed and evidence related to the childhood and adolescent factors that are associated with mental health, substance abuse, crime, and educational attainment outcomes in young adulthood is reviewed.

The scant evidence about risk and protective factors during young adulthood is then presented, exposing the two gaps in the literature pertaining to young adulthood that guide the intention of the current study. The first gap suggests that there is a lack of knowledge about risk and protective factors in young adulthood that impact well-being. The second gap notes that there is a lack of research to assess the impact of racial discrimination and ethnic identity on outcomes during young adulthood. Racial discrimination is discussed in the historical and social context of the United States. Evidence regarding the impact of perceived racial discrimination, including microaggression on the well-being of nonwhite adults, is reviewed. Evidence examining ethnic identity as a mediator in the relationship between perceived discrimination and its impact on young adult well-being follows. The chapter concludes with the research questions guiding the current study.

Well-Being of Young Adults in the United States

According to the U.S. Census Bureau (2009), almost one-third of the U.S. population (81.5 million people) are young adults between the ages of 18 and 34. Of these, 49% are male. Seventeen percent live below the poverty line. The racial and ethnic composition of this age group is diverse; 52% of young adults are white (not Latino/Hispanic), 13% are black, 17% are Latino/Hispanic, and 5% are Asian. In addition, the young adult population is becoming increasingly diverse due to increases in immigration. According to U.S. Census data, in 2000 over 60% of Asian/Pacific Islanders and 45% of Latino/Hispanics between the ages 18 and 24 were born outside the United States (Jekielek & Brown, 2005). Also in 2000, 14% of young adults ages 18 to 24 were not currently enrolled in school, employed, or in the military, and had no more than a high school diploma or GED. These figures reflect one in four black, Latino/Hispanic, and American Indians ages 18 to 24 in contrast to only one in ten white young adults (Jekielek and Brown, 2005). The diversity and complexity of young adults in the United States makes it difficult to describe, theorize, and develop interventions that will serve a common good.

Social policies reflect the expectation that once people have reached this point in the life course, they have adequately developed and matured to bear the financial and emotional independence of adulthood. Age 18 marks the beginning of legal adulthood in the United States, bringing both new freedoms and responsibilities such as being able to vote, drive, marry without parental consent, enter into legal contracts, join the military, and obtain financial credit. Age 19 marks the legal age for purchasing cigarettes, and at age 21,

young adults can legally buy and consume alcohol (National Center for Health Statistics, 2009). Conversely, many young people transitioning to adulthood rely on family support, leave home later, and lack the skills and education needed for secure employment in a very competitive and depressed economy.

The high prevalence of mental health problems during young adulthood suggests that the stresses during this developmental period have serious impact. Data from the Behavioral Risk Factor Surveillance System (BRFSS) show that in 2009, 11% of 18 to 24 year-olds and 12% of 25 to 34 year-olds reported that they experienced frequent mental distress (Centers for Disease Control and Prevention, 2009). Additionally, between 1999 and 2004, almost 9% of young adults between 20 and 29 years of age fit diagnostic criteria for major depression, generalized anxiety disorder, or panic disorder in the past year (National Center for Health Statistics, 2009). Rates of depression increase in adolescence and peak in young adulthood (Child Trends, 2010). Almost 7% of young adults had a diagnosis of major depression in the past year (National Center for Health Statistics, 2009). Unrewarding jobs with minimal skills and low autonomy have been linked to depression among young adults (Child Trends, 2010). Thus, it is not surprising to find that in 2008 twice as many young adults living below the poverty line had depression symptoms in the past 30 days when compared to those living above the poverty line (Child Trends, 2010).

Concern about the state of young adult well-being goes beyond emotional distress. The following describes indicators of substance abuse, crime, and limited educational and occupational attainment as further indication that the well-being of many young adults in the United States is compromised. Patterns in racial differences are also reviewed.

Substance Abuse During Young Adulthood

Substance abuse is a significant problem among young adults. Most young adults who use drugs or alcohol initiated their use during adolescence (Substance Abuse and Mental Health Services Administration [SAMHSA], 2010). The prevalence of use increases, and substance abuse problems are at their height during young adulthood before decreasing again (SAMHSA, 2010). Young adults between 18 and 25 have the highest rates of illicit drug use, alcohol use, and binge drinking than any other age group. Self-report data from the National Survey on Drug Use and Health (2009) found that 18% of young adults used marijuana in the past month, 6% used prescription medication without a prescription, 1% used hallucinogens, and 1% used cocaine (SAMHSA, 2010). Fourteen percent of young adults reported heavy alcohol use, and 42% reported binge drinking. Approximately one-fifth of 18 to 25 year-olds met criteria for drug or alcohol dependence or abuse (SAMHSA, 2010). Men are more likely (26%) than women (17%) to have substance use disorders (SAMHSA, 2008).

American Indians (including Alaskan Natives) have the highest rate of substance use disorders during young adulthood, which was 31% in 2006 (SAMHSA, 2008). The next highest rate occurred in people who belonged to two or more racial groups (28%), followed by whites (25%), Hispanic or Latino (17%), and black or African American (14%). Interestingly, patterns of use differ from adolescence to young adulthood for racial groups. For example, data from the 1991 National Household Survey on Drug Abuse found that during adolescence whites have heavier drinking patterns than other racial/ethnic groups. However, in young adulthood heavy drinking decreases and stabilizes for whites, while increasing for African Americans, and decreasing for Hispanics (Nielson, 1999).

Substance abuse is technically a mental illness according to the Diagnostic and Statistical Manual of Mental Disorders. Recent policy trends are beginning to acknowledge this definition, and progress has been made recently in policy efforts toward ensuring that young adults have adequate access to treatment. Current policies indicate that a primary agenda is to strive for more integrated care for primary health with behavioral health, including mental health and substance abuse treatment. The Mental Health Parity Act of 1996 requires health care insurance to provide mental health care, including substance abuse disorders to the same extent as medical health care. (White House Drug Policy, 2010). In addition, recent policy reform requires insurance companies to cover dependent young adults up to age 26 on their parents' coverage. Therefore, those whose treatment was funded by their parents' health insurance are likely to be covered for additional years (Cantor, Monheit, Belloff, De Lia, & Koller, 2010). While this is a start toward addressing the need of behavioral and mental health services for young adults, 9.1 million 19 to 25 year-olds' parents do not have health insurance (Galewitz, 2011). Only 13% of young adults who needed treatment actually received it in 2006 (SAMHSA, 2008).

Furthermore, the drop in accessing mental health services upon turning 18 might reflect reasons beyond health insurance coverage such as internalized stigma, or the sense that the system of care is not intended for their age or racial group. One study, for example, that examined a nationally representative sample of U.S. household data from the 1996 Medical Expenditure Panel Survey found that individuals reported less barriers to accessing health care when there was a larger population of their race in their counties of residence (Haas, Phillips, Sonneborn et al., 2004).

Frequently substance abuse and mental illness co-occur, presenting complex treatment needs without comprehensive integrated systems of care to manage the scope of their problems (Jenson et al., 2011). Youth with substance use disorders are at increased risk for entering young adulthood impacted by involvement with the legal system, with mental health problems, and with parents who do not provide adequate financial or emotional support. Currently, it is extremely difficult for many young adults to afford substance abuse treatment if they do not have health insurance. Therefore, they are much more likely to access and receive services if they are involved in the social services or criminal justice system. Policies that require people to be employed in order to receive welfare benefits, in effect, create further obstacles for people with substance abuse problems whose functioning is likely to be impaired until they are able to stabilize through treatment (Jayakody, Danziger, Seefeldt, & Pollack, 2004).

The National Drug Control Strategy (2010) has detailed strategies to reduce the criminalization of substance use disorders. However, treatment will likely continue to be intertwined with the criminal justice system to some extent since substance use disorders often co-occur with criminal behavior, and a number of innovative interventions for substance abuse disorders involve mechanisms built into the criminal justice system. However, the system is not always viewed with such favorable light and is challenged to respond to high crime prevalence in young adulthood.

Young Adult Crime

Crime is a significant problem during young adulthood. Rates of arrest are the highest for young adults (ages 18 to 29). Department of Justice (2009) statistics indicate that this age group accounts for 45% of arrests for violent crime and 43% of all property crimes. Prisons are subsequently disproportionately, and increasingly, populated by young adults (National Center for Health Statistics, 2009). Using data from the National Corrections Reporting Program, the Child Trends Data Bank (2010) reported that the number of young adults between 18 and 29 in prison or jail rose from 745,200 to 862,300, an increase of 14%, between 1999 and 2008.

There has been such a rapid increase of incarceration for young men from inner cities that it has come to be viewed as part of the normal life course (Bosick & Gover, 2010). In particular, young black young men in their late teenage years are more likely to be incarcerated than any other minority group. In 2006, approximately 5% of non–Latino/Hispanic black men ages 18 to19 years, 11% age 20 to 24 years, and 12% age 25 to 29 years were in prison or jail, compared with less than 2% of non–Latino/Hispanic white men and about 4% of Latino/Hispanic men in those age groups (National Center for Health Statistics, 2009). This trend has led to more black male high school drop-outs between the ages of 20 and 30 who are in legal custody than in paid employment (Child Trends Data Bank, 2010).

Youth involved in the juvenile justice system are less likely than other youth to transition successfully into adulthood. Only 12% of chronic and serious offenders have their high school degree or GED by young adulthood, and recidivism for youth who have been incarcerated is high at 70% to 90% (MacArthur Research Network on Transitions to

Adulthood, 2005). Criminal justice involvement, particularly incarceration, impairs people from being productive and healthy, members of society. Entry into the system disrupts development because there is no chance to develop competencies or maintain healthy social bonds while they are in jail. As such, they become dramatically marginalized from society. Especially symbolic of this is the loss of the right to vote for felons (Uggen & Wakefield, 2005). Even short periods of incarceration lead to detrimental effects (Bosick & Gover, 2010).

Punitive trends in criminal justice practices enforcing longer sentencing has resulted in adolescents aging into adulthood in prison, with large numbers of young adults transitioning back to the community profoundly impaired toward establishing roles of adulthood. When rehabilitation is the trend there is more focus on transitioning people back to the community with plans for gaining employment, securing a place to live, and becoming involved in social support networks. Community supervision and community-based programs offer some support, but the services are limited in their ability to impact overwhelming need and scarce resources. Furthermore, there are often many requirements for an individual placed on probation or parole, such as securing housing and employment, and complying with substance abuse treatment and probation meetings, that it is extremely difficult, if not impossible, to meet them all, especially given financial and transportation barriers (Uggen & Wakefield, 2005).

Current national policy trends reflect the fact that young adults need support in many areas as they transition out of prison (Travis & Visher, 2005). The Second Chance Act, signed into law in 2008, is the first of its kind authorizing federal grants to government agencies and nonprofits to provide services that can help reduce recidivism. Part of the

mission of the National Reentry Resource Center established under this law is to identify and disseminate evidence-based practices (Guerino, 2011). Programs providing education career training, and substance abuse and mental health treatment for young adults and juveniles are current foci (Guerino, 2011).

Education and Employment

Higher education is an increasingly critical factor in securing financial stability during adulthood. Those who immediately enter the workforce with only a high school diploma have difficulty securing employment that provides enough resources to meet basic needs (Furstenberg et al., 2005). Census Bureau data from 1967 to 2009 reveals a response to the demand for an undergraduate college degree among students ages 18 to 24 over the past few decades. In 1967, 26% of young adults in this age group enrolled in college; and 41% enrolled in college in 2009 (U.S. Census Bureau, 2011). Especially dramatic increases in undergraduate enrollment have been seen among female students and students of color. In 1967, 33% of men and 19% of women between the ages of ages 18 to 24 were enrolled as undergraduate students. In 2009, enrollment among males had increased to 38% while female enrollment had increased to 44% (U.S. Census Bureau, 2011). According to 2000 census data, young adult women surpass men in educational attainment. In 2000, 16.5% of women and 11% of men ages 21 to 24 earned a bachelor's degree or higher. Males were also less likely than females to complete high school. Twenty-one percent of young men ages 21 to 24 held less than a high school degree while the same was true for only 15% of their female counterparts (Jekielek and Brown, 2005).

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Educational trends show increases in college enrollment for nonwhite racial groups. In 1976, 82% of students in undergraduate programs were white; only 62% of students were white in 2009. Despite increases in nonwhite academic enrollment, an "achievement gap" persists in the United States so that academic performance for children of color and from impoverished families is generally not as high as their white, more wealthy peers. Poor and nonwhite children tend to not score as well on standardized tests, do not take as advanced courses, and are less likely than whites to complete college (Lee, 2006). In 2004, 22% of 18 to 24 year-olds in the United States had not completed high school. While 94% of native born white Americans have completed high school, and 34% completed college, the figures for black people were 87% and 18% respectively, and for Latino/Hispanics, 63% and 10% (Fussell & Furstenberg, 2005). In addition, most nonwhite racial and ethnic groups in the United States (not including Asian) are less likely than whites to participate in college. In 2009, 30% of whites, 19% of blacks, 13% of Latino/Hispanics, and 52% of Asian adults over the age of 25 completed college (U.S. Census Bureau, 2011).

While the trend toward pursuing post-secondary education has increased across income levels, there remain far higher percentages for those from higher income families than those from families with less wealth. Young adults from families with less financial resources are less likely to enroll in college and are far less likely than other young people to achieve a college education or pursue post-graduate training (National Center for Health Statistics, 2009). To illustrate this, college enrollment rates increased from 33% in 1980 to 54% in 2005 among high school graduates in the bottom 20% of family income. Meanwhile, college enrollment rates increased from 65% to 81% over the same time period

for high school graduates in the highest 20% of family income (National Center for Health Statistics, 2009).

There is also an association between being a first generation student in college and academic achievement. First generation college participants tend to come from families that have low financial resources. Therefore, young people attempting to break through generational cycles by advancing their education face disadvantages. In addition to limited financial resources, these students lack familiarity with social and academic expectations of college. First generation college students are more likely than other students to drop out at the end of the first year and are less likely to complete a bachelor's degree. Furthermore, first generation college participants who do complete a bachelor's degree are less likely to complete graduate degrees than other students (Pascarella, Pierson, Wolniak, & Terenzini, 2004).

The impact of financial resources in the discrepancy in educational success is also illustrated by the differences in graduation rates by type of college or university. Students enrolled in private institutions are substantially more likely than public school students to graduate. Results from the American College Testing Institutional Data Questionnaire (2010), found that 55% of students enrolled in private four-year colleges, and 53% of those in private two-year colleges completed their degrees. This compares to only 39% of students enrolled in public four-year programs and 28% enrolled in public two-year programs. Disparities also exist between retention of white students and students of color. According to the Education Trust (2010), 60% of white students earn a bachelor's degrees within six years compared to only 49% of Latino/Hispanics and 40% of black students.

The associations between educational achievement, employment stability, and financial success are well-known. According to the National Center for Education Statistics (NCES) (2010), in 2008, young adults who received higher levels of education were more likely than other adults to be employed full-time. For example, 72% of young adults with a bachelor's degree or higher were employed full-time, while only 62 percent of young adults with a high school diploma or its equivalent had full-time employment. In addition, among young adults employed full-time, higher educational attainment was associated with higher income. Young adults with a bachelor's degree earned 28% more than young adults with an associate's degree, 53% more than young adults whose highest level of education was high school, and 96% more than young adults who did not earn a high school diploma. The statistics from 2008 data also show that the average income for young adults with a master's degree or higher was $55,000, or 20% more than young adults with a bachelor's degree (NCES, 2010).

Education and vocational systemic support is of central value for young adults seeking to establish the milestones of adulthood. Unfortunately, many young adults face a difficult path toward substantial employment (Furstenberg et al., 2005). Four-year colleges are designed to meet the developmental needs of the young adults in the transition to adulthood, and the optimal route toward career and financial stability. The higher the financial resources of families, the more likely they are to access colleges that have more selective enrollment and those who attend schools with high selectivity tend to have the most financial and career success later on (Horn & Nevill, 2006). Young people from privileged backgrounds typically attend four-year colleges and frequently attend graduate

or professional programs after that. They are, however, difficult to access for those who do not come from families with sufficient financial resources (Furstenberg et al., 2005).

Student financial assistance seems an obvious response to ensuring that young people with limited resources can access. An analysis of the impact on college attendance and completion with the elimination of the Social Security Student Benefit Program in 1982 emphasized the difference that financial status makes in college. This policy, when in effect (1965 to 1982), provided financial assistance to young adults whose parents were receiving Social Security benefits; approximately 12% of full-time college students (ages 18 to 21) were receiving the benefits. College participation rates declined rapidly after the policy was eliminated. The analysis suggested that the assistance increased the probability of participating in college by 4% (Dynarski, 2003). Current supports for college in the form of federal grants and loans offer small amounts of money, and are most often awarded to middle-class students (Dye, 2008). A nominal amount of assistance also comes from private foundations.

Not only does the ability to follow the most direct pathway to the successful establishment of adulthood roles in career and financial independence depend on financial resources from the family of origin or limited governmental supports, it also assumes one is not married or having children yet. Public colleges offer an option for people who need to fit college around their life structure that are comparatively inexpensive. Although more accessible, these options yield far lower graduation rates and career success (Dynarski, 2003).

All adolescents have the right to public education through the twelfth grade; however, many young people enter the transition to adulthood inadequately prepared for

success in post-secondary education. Policy statements in the No Child Left Behind Act, enacted under the Bush administration in 2002, aim to ensure academic excellence and equity by holding schools accountable for student achievement through standardized testing (Frey & Walker, 2006).Unfortunately, achievement rates have remained fairly stable (Lee, 2006), and the achievement gap between whites and people of color has held steady or even increased in recent years. This is likely because these policies do not impact many of the risk factors and social disadvantages associated with poverty (Frey & Walker, 2006). In addition, many youth of color do not participate in college preparation and are not able to succeed in the transition from high school to college, contributing to discrepancies in college attendance (Bragg, Kim, & Rubin, 2005).

The Office of Vocational and Adult Education (2010) reported findings from a review of literature regarding available programs that address the transition to post-secondary education. They found three major approaches were used to support young adults who wished to access college: 1) supportive interventions that provide services such as advising and counseling, transportation, and child care; 2) academic preparation interventions that teach content and skills needed to succeed in post-secondary education; and 3) policy interventions that increase access to education for nontraditional students. The report concluded that research is needed to examine the efficacy of these programs before substantial government financial investment would be made in any of the options.

Bragg et al. (2005) examined policies across the United States and the District of Columbia that support students in transitioning to college from high school. They found that there are programs in all states that provide college credit concurrent to high school credit. The majority of states also offer programming that outreaches to high school

students, especially those of color, to help prepare and familiarize them to college. Other options include college entrance testing preparation, distance learning/virtual schools, and expanding high schools to provide college coursework. They note that they interviewed state government officials for this information and found fairly consistently that there was little knowledge or focus on college preparedness per se. In addition, the military provides another option for many, in which food, shelter, and work training are all offered in one place, targeted to support their transition to adult responsibilities. Finally, some employment settings have developed structures that train people on the job (Furstenberg et al., 2005).

Summary

High prevalence rates of mental illness, substance abuse, crime, and low educational attainment, coupled with inadequate systemic responses for these social problems, considerable challenges to researchers and policy-makers who are invested in identifying priorities and developing interventions for young adults. Imagine, then, the complexities and challenges in navigating this developmental period, especially for people without substantial financial resources, emotional support, or practical guidance. Comprehensive public supports to young people during the transition to adulthood are virtually nonexistent. To complicate matters, many of the services that were provided in childhood and adolescence suddenly are no longer available when the age of legal adulthood is met.

The developmental stage of young adulthood can be stressful for even the most capable and privileged young people. The independence granted by becoming legal adults

also comes at a time when young people are often experimenting with various roles and risk-taking behaviors. In this light, it is not surprising to find that many young adults are grappling with emotional and behavioral problems that compromise their well-being.

Data regarding educational attainment are also troubling. Post-secondary degrees are increasingly important for adults to engage successfully in the workforce and are a seemingly important ingredient for the innovation and skills needed in the workforce. Meanwhile, it is clear that our country's mechanisms for supporting young adults are inadequate. The lack of substantial systemic supports for young adults reflects a lack of theoretical and empirical basis for understanding the specific needs of young adults and how interventions ought to be designed. As described in Chapter 1, both risk and resilience and life course theories provide frameworks for understanding how various factors impact the trajectories that unfold as people move through the transitional life stage of young adulthood. The next section describes evidence supporting these two theories.

Research Assessing Risk and Resilience and Life Course Theories

Tenets of risk and resilience and life course theories both were developed through longitudinal research studies starting as far back as the 1950s. Because of the overlap in the two theories, it is common for findings from an individual study to inform evidence pertaining to both theories. A review of the findings relative for both theories follows.

Risk and Resilience

Risk and resilience researchers have produced an extensive body of knowledge about the risk and protective factors associated with childhood and adolescent behaviors

(Hawkins, Catalano, & Arthur, 2002). As asserted earlier, these investigations tend to focus almost exclusively on childhood and adolescent development stages, but they do not adequately study factors occurring beyond adolescence. However, the contributions from risk and resilience researchers are important in explaining what we know about the factors shaping trajectories in the life course and the correlates of problematic outcomes in young adulthood. In fact, research derived from risk and resilience models has been so extensive and consistent that risk and protective traits identified by this research has been largely accepted in public health and prevention circles as a basis for practice and policy efforts. Much has also been discovered about how these factors interrelate with one another and some of the dynamic processes within which they unfold.

Risk factors tend to be interrelated. Children with one risk factor tend to have other risks, and multiple risk factors across multiple environments predict a range of outcomes (Catalano et al., 2004; Edwards et al., 2007; Farrington, 2006). In addition, it is often difficult to assess the temporal order and to determine if such risk factors are causal or symptomatic of the problems or both. For example, having delinquent friends is often a predictive factor for antisocial behavior. However, this does not necessarily mean that having antisocial peers causes delinquency, or that it is a result of the delinquent behavior. Other variables may be equally as important or interact with the influence of friends. Similarly, childhood exposure to poor parenting might be a causal factor of a child's antisocial behavior, but a reverse relationship would describe a much different process (Farrington, 2006).

Nevertheless, on the basis of consistent findings from longitudinal studies, there is considerable consensus about common risk factors. Most of the research that produced

these findings has examined relationships between early childhood aggression, conduct problems, and adolescent problems. These factors have also proven to be predictive of a range of young adult outcomes discussed later in this chapter. Consistent with the literature, it is useful to present common risk and protective factors by level of social ecology.

Individual risk factors are biological and psychological characteristics in young children that may increase their vulnerability to negative social and environmental influences over the course of development (Herrenkohl, Maguin, Hill, Hawkins, Abbott, & Catalano, 2000). Family risk factors are based on how children are socialized and disciplined in their family environment. Schools are a primary system for children. A variety of risk factors occur in this context, including behavioral and interpersonal problems and aspects of school culture. The physical space, negative social influences, and proximity to resources are all nuances of neighborhoods that are potential risk factors for emotional and behavioral problems. Empirically established risk factors for negative emotional and behavioral outcomes in childhood and adolescence are listed in Table 2.1.

Table 2.1

Risk Factors by Domain

Domain	Risk Factors
Individual	Genetic/neuropsychological deficits, perinatal trauma, maternal substance use during pregnancy, low IQ, ADHD, learning disabilities, low school attainment, low empathy, impulsiveness, risk-taking, social cognitive skills such as problem-solving, low self-esteem, difficult temperament, early onset of substance use, early aggression (Barton, 2006; Farrington, 2006; Fraser, 2006; Frey & Walker, 2006; Herrenkohl et al., 2000).
Family	Parent or other family member with antisocial tendencies and/or substance abuse, low SES, large family size, frequent moves, poor parental supervision, harsh or punitive discipline involving physical punishment, rejecting parents, poor maternal attachment, low parental involvement, abuse and neglect, divorce, separation from a biological parent (Barton, 2006; Farrington, 2006; Frey & Walker, 2006; Herrenkohl et al., 2000).
School/Peers	Large-sized school with limited resources, high staff turnover, high percentage of low SES students, poor school and classroom climate, school violence, poor classroom management, weak and inconsistent leadership, early academic failure, low commitment to school, truancy, delinquent peers, gang membership, peer rejection, social isolation (Barton, 2006; Jenson et al., 2011; Fraser, 2006; Herrenkohl et al., 2000).
Neighborhood	Poverty, frequent violence and crime, high stress, permissive cultural and social norms, neighborhood disorganization, physical deterioration, availability of drugs and weapons, high population density, low neighborhood attachment, limited education and employment opportunities (Jenson et al., 2011; Frey & Walker, 2006).

Protective factors have also been found to be associated with positive trajectories, including youth and young adults (Hawkins et al., 2002). Studies have shown that some protective traits mediate and/or moderate relationships between risk factors and negative outcomes (Keyes, 2004). Thus, protection is generally understood in relation to risk, either by buffering against the effects of risk exposure, interrupting a chain of risk factors so that a change in trajectory occurs, or blocking the onset of a risk factor (Jenson & Fraser, 2011).

Protective factors began to be identified when findings from longitudinal studies showed certain positive attributes operating in the children who rose above their adversity (Jenson & Fraser, 2011). Protection offers a common language and conceptualization for positive development that occurs even in the presence of risk factors (Jenson & Fraser, 2011). Researchers have identified a number of key protective factors across the ecological systems that demonstrate relationships to mental health, substance abuse, delinquency, and education outcomes. Commonly known protective factors are listed in Table 2.2.

Table 2.2
Protective Factors by Domain

Domain	Protective Factors
Individual	High IQ and cognitive skills, high affect regulation, good social skills, ability to adapt to change, effective communication skills, positive outlook, self-efficacy, personalities that are autonomous, active, outgoing, and warm (Frey & Walker, 2006; Fraser, 2006; Keyes, 2004).
Family	Parental monitoring, low parental conflict, caring relationships with siblings, attachment to parents, good communication, high family cohesion, social support, small and stable family units, higher SES (Keyes, 2004; Fraser, 2011; Jenson et al., 2011).
School/Peers	Physically safe environments, have consistent rules and set high academic and social expectations, positive relationships with teachers having a close bond to school, academic achievement, acceptance by pro-social peers, involvement in positive peer groups (Frey & Walker, 2006).
Neighborhood	Support programs, social support from nonfamily members, involvement in conventional activities such as church, opportunities for support and achievement (Jenson et al., 2011; Keyes, 2004).

Along with the discovery of protective factors emerged the phenomenon of resilience. Among the first studies to examine resilience was Werner and Smith's (1992) investigation in Kauai, Hawaii, that began in 1955. They found that many of the young participants who had been identified "at risk" at birth due to exposure to numerous risk

factors, had developed into competent and confident young adults with high-functioning continuing well into adulthood (Saleebey, 1996; Werner, 2005). This research was pivotal in demonstrating that certain factors protect children from developing problematic behavior despite adversity. It also showed that a person's life course can change at any time even if early childhood factors might predict otherwise (Saleebey, 1996). Children demonstrating resilience are often found to develop high self-esteem, solve problems, evidence self-efficacy, and believe they have the ability to influence events in their lives for the better (Edwards et al., 2007). They also believe that they are part of society and tend to participate in community service at higher rates than other at-risk youth (Edwards et al., 2007).

Two basic types of models of resilience are validated in the research literature. One model finds that resilience appears to be a matter of the summation of protective factors outweighing risk factors. So the more exposure to risk factors that occur during the life course, the stronger the possibility is for negative outcomes such as lack of academic achievement, emotional problems, and antisocial behavior (Edwards et al., 2007). Meanwhile, the more protective factors occurring during development, the better chances of successful outcomes, particularly if there are more protective factors than risk factors (Edwards et al., 2007). Findings supporting the other type of model demonstrate that there are a range of relationships involving interactions between risk and protective factors, and resilience outcomes depending on factors such as the temporal occurrence, co-occurrence with other factors, and strength of exposure to the factors, as well as how salient the factor is in one's life (Kraemer et al., 2001; Pollard & Hawkins, 1999; Werner, 1990). Mediation of a risk factor's impact on outcomes by protective factors is a common type of relationship found in the literature. For example, Werner and Smith (1989) found that at-risk girls

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whose mothers secured employment after they became toddlers had particularly improved likelihood for resilient outcomes.

In sum, research on risk and protection has been so extensive and consistent that common risk and protective factors are now largely integral to research, practice, and policy-related discussions of the etiology of childhood and adolescent behavioral and mental health outcomes (Jenson & Fraser, 2011).The impact of childhood risk and protective factors beyond adolescence, however, is much less substantiated. A review of findings from key longitudinal studies regarding outcomes of mental health, substance abuse, crime, and education/employment in young adulthood reveals that knowledge regarding how, and to what extent, childhood risk and protective factors shape adult behavior is limited. Table 2.3 lists key longitudinal studies and research investigations that have reported on these outcomes in young adulthood.

Results from the studies support the assertion that problem behaviors in young adulthood often originate in early childhood and/or adolescence. Findings also suggest that early onset of antisocial behavior increases the likelihood of such behavior into adulthood (Stein, Guy, Smith, & Bentler, 1993; Farrington, 1990; Farrington 1992; Farrington, 1995; Flory, Lynam, Milich, Leukefeld, & Clayton, 2003; Jessor, Donovan, & Costa, 1991; Stattin & Magnussen, 1991; Newcomb & Bentler, 1987; Werner, 1993). At the same time, adolescent onset and later desistance is a far more likely pathway. Additionally, the evidence is strong that childhood behavior and emotional problems predict multiple problems (Guy et al., 1993; Farrington, 1990; Farrington 1992; Flory et al., 2003; Stattin & Magnussen, 1991; Newcomb & Bentler, 1987; Werner, 1993), which is highly relevant for the importance of integrated care both in childhood and adulthood.

Table 2.3

Outcomes in Young Adulthood from Key Longitudinal Studies
and Research Investigations

		SA	Crime	Ed/Wk
Boston 13-Year Schools Project	Guy, Smith, & Bentler (1993)	X		X
The Cambridge Study in Delinquent Development	Farrington (2006); Farrington (2001); Farrington & Hawkins (1991); Farrington & West (1993); Farrington & West (1995)	X	X	X
Children in Community Study	Kasen, Cohen, Skodol, First, Johnson, Brook, & Oldham (2007); Brooks, Richter, Whiteman, Cohen (1999)	X		
Drug Abuse Resistance Education Longitudinal Evaluation	Flory, Milich, Lynam, Leukefeld, & Clayton (2003); Flory, Lynam, Milich, Leukefeld, Clayton (2004)	X	X	
Dunedin Multi-Disciplinary Health and Development Study	Roberts, Harms, Caspi, & Moffitt (2007); Kim-Cohen, Caspi, Moffitt, Harrington, Milne, & Poulton (2003); Arsenault, Cannon, Poulton, Murray, Caspi, & Moffitt (2002)	X		X
"From a Boy to Man" Study	Sourander, Eloheimo, Niemela, Nuutila, Helenius, Sillanmaki, Piha, Tamminen, Kumpulainen, Moilanen, & Almqvist (2006)		X	
Individual Development and Adaptation	Magnussen, Bergman (1988); Stattin; Stattin and Magnussin (1991); Mahoney, Stattin, & Magnussen (2001)	X		
Jessor & Jessor's Longitudinal Study	Jessor, Donovan, & Costa (1991)	X		X
Kauai Longitudinal Study	Werner (1993)	X	X	X
The LA Schools Study	Newcomb & Bentler (1988)		X	

Table continued on next page.

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Table 2.3 (continued)

		SA	Crime	Ed/Wk
Pittsburgh Youth Study	Loeber, Stouthamer-Loeber, Van Kammen, & Farrington (1991); Loeber, Farrington, Stouthamer-Loeber, Moffitt, Caspi, & Lynam (2001)	X	X	
Rochester Youth Development Study	Thornberry, Henry, Ireland, & Smith (2010)	X	X	X
Seattle Social Development Project	Guo, Hawkins, Hill, & Abbott (2001); McCarty, Kosterman, Mason, McCauley, Hawkins, Herrenkol, & Lengua (2009); Oesterle, Hill, Hawkins, Guo, Catalano, & Abbot (2004)	X	X	X
Unraveling Juvenile Delinquency (Glueck & Glueck, 1950, 1968) 500 delinquent and 500 nondelinquent males	Sampson & Laub (1990)		X	
Woodlawn Study	Fothergill & Ensminger (2006) Green, Doherty, Stuart, & Ensminger. (2010)			X

Farrington & West (1995) illustrated these patterns by testing a composite outcome measure of social dysfunction at age 32, based on the five previous years of self-reported offending, poor home conditions, poor cohabitation history, child problems, poor employment history, substance abuse, violence, and poor mental health. They found that the lack of success in young adulthood was influenced most strongly by the early onset of delinquency. Success was less strongly related to later onset of antisocial behavior, even less by those who desisted; only 13% of the participants who had never been convicted had social dysfunction outcomes at age 32. A pattern indicating that antisocial behaviors most often increase in adolescence and decrease in young adulthood was also found (Farrington, 1990; Farrington, 1992). Sampson & Laub (1990) found that those who had delinquency but found job stability were less likely to have adult criminal behavior.

Findings from the Cambridge Study concluded that the best predictor of persistence of antisocial behavior for males between the ages of 21 and 32 was lack of leisure time spent with fathers at ages 11 to 12. Yet, among youth who had been convicted of criminal offenses, those whose fathers joined them in leisure activities in late childhood had a better chance of desisting from crime in early adulthood (Farrington & Hawkins, 1991). In addition, boys who had never been separated from their parents were less likely than other boys to be convicted and continue to engage in criminal behavior (Farrington & Hawkins, 1991).

Maltreatment (physical abuse, sexual abuse, and/or neglect) has been linked to negative outcomes in young adulthood. Thornberry, Henry, Ireland, & Smith (2010) investigated differential influence of child-limited maltreatment compared to adolescent maltreatment in predicting negative emotional and behavioral outcomes in young adults. The study found causal impact of both childhood-limited maltreatment and adolescent maltreatment on drug use and problem drug use. The impact was especially strong for adolescents; maltreated adolescents were four times higher than nonmal-treated adolescents to use drugs and/or have drug problems. Additional findings were that childhood-limited maltreatment increased the likelihood to have suicidal thoughts and depressive symptoms in young adults. The study also found effects of adolescent maltreatment on young adult outcomes, including higher levels of general offending, violent crime, arrests, and incarcerations.

Importantly, some research findings in the risk and resilience literature have begun to identify correlations describing patterns in young adulthood. Close interpersonal connection has been found to be inconsistent with alcohol and marijuana use, as well as

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violent and financial crime (Kosterman, Hawkins, Abbott, Hill, Herrenkohl & Catalano, 2005). In addition, substance abuse during young adulthood has been found to have negative association with young adult well-being. For example, substance abuse during young adulthood was found to be related to simultaneous employment problems (Guy, Smith, & Bentler, 1993). On the other hand, people who demonstrate commitment to education and occupational goals are far less likely to engage in criminal behavior or alcohol use (Eitle, Taylor, & Pih, 2010; Sampson & Laub, 1990) Another study found that proximal variables of characteristics of intimate partners and the surrounding neighborhood were associated with intimate partner violence (Herrenkohl, Kosterman, Mason, & Hawkins, 2007). Yet another study showed that volunteerism in young adulthood was significantly related to less substance use in young adulthood (Kosterman et al., 2005).

In sum, the evidence of specific earlier childhood and adolescent risk and protective factors predicting outcomes later in life has been invaluable toward understanding the etiology of outcomes in young adulthood. The knowledge that early childhood and adolescent risk and protective factors, often occurring very early in childhood, continue to impact young adult outcomes is crucially important for understanding the negative outcomes in young adulthood. On the other hand, many young people exposed to high risk who display delinquent behaviors in childhood and adolescence desist later in life. And, of major significance, the extreme and increasing prevalence of negative outcomes in young adulthood is not adequately explained by the early childhood predictors. These inconsistencies suggest that many influences other than the common identified childhood and adolescent risk and protective factors impact adult outcomes.

The prevention focus of risk and resilience has led to the development of early intervention approaches and some have demonstrated lasting impacts into young adulthood. Considering the findings that early childhood factors have important yet limited capacity to predict adult outcomes, early prevention efforts are not enough. The prevalence of negative outcomes during young adulthood suggests that intervention efforts are also needed during young adulthood. Life course research has contributed to several theoretical propositions that help further our understanding of young adult outcomes.

Life Course Theory

In the early 1900s, sociologists at the University of Chicago began conducting studies of problems confronting American society from a life course perspective by tracing patterns of peoples' experiences across generations (i.e., Thomas & Znaniecki's study, *The Polish Peasant in Europe and America*) (Benson, 2001). Two longitudinal studies that focused on children born in the 1920s in California, the Oakland Growth Study and the Berkeley Guidance and Growth Studies (Eichorn, Clausen, Haan, Honzik, and Mussen 1981), began in the 1920s (Benson, 2001). These studies collected data into the 1980s and provided information about patterns of development over significant portions of the life course. By the 1930s, American criminologists had launched two additional longitudinal studies of delinquents, the Crime Causation Study (Glueck and Glueck, 1950) and the Cambridge-Somerville Youth Study (Powers and Witmer, 1951). Data were collected over several decades, and the studies lent both important theoretical and empirical basis for longitudinal research on careers in crime (Benson, 2001).

A central early finding in criminological studies was the presence of antisocial problems over the life span. In the early studies, behavioral problems began early and persisted into adolescence; the more juvenile problem behaviors, the higher the likelihood of persistence into adulthood. The best predictor of antisocial behavior in early adulthood is often negative behavior that is committed as a young child (Jessor et al., 1991; Loeber et al., 1991). This finding has been substantiated repeatedly by researchers over several decades (Sampson & Laub, 1997). Further, associations have been found between childhood aggression and delinquent behavior with substance abuse, traffic violations, and marital conflict and abuse (Sampson & Laub, 1997).

Numerous studies of mostly criminal cohorts and/or with focus on outcome measures of crime and deviance, allowed criminologists to observe variations and patterns in criminal trajectories. Researchers began to observe that there were interactions among various trajectories of the biological, psychological, and social domains of human functioning. The findings suggested that the various trajectories are interconnected, and have interactive effects on one another domains of individuals' lives, impacting each other. It became evident that crime trajectories were just one small part of an individual's life course and better understood if viewed within social, historical, and developmental contexts, thus building a life course theoretical perspective (Benson, 2001).

Research from the life course perspective has led to several theoretical advances toward understanding the dynamics and processes that shape differential pathways, and lead to differential outcomes in young adulthood and beyond. One major proposition is the salience of adult social bonds in explaining changes in criminality over the lifespan (Sampson & Laub, 1990). This model acknowledges the importance of early childhood

traits in shaping criminality, but asserts that social interactions and informal social control in adulthood also have important impacts on adult behavior. Sampson & Laub (1990) analyzed data from the Unraveling Juvenile Delinquency Study (Glueck and Glueck, 1950) and found that the strength of social bonds to work and family inhibited adult criminal and deviant behavior. In addition, job stability, commitment to occupational and educational goals, and attachment to spouse all had associations with changes in crime and delinquency in young adulthood. Furthermore, marriage and/or cohabitation and becoming a parent are associated with less young adult criminal behavior (Sampson & Laub, 1990). The construct of cumulative disadvantage (Sampson & Laub, 1997) is an important subsequent finding in life course research. Cumulative disadvantage suggests that, especially in the transition to adulthood, informal and social controls expose people to different social bonds that mediate early precursors. The research findings informing this construct demonstrated that young people who were identified as criminals tended to experience a "snowball effect"; accumulating disadvantage through various social contacts and circumstances that resulted from their involvement in criminal sanctions (Sampson & Laub, 1997). For example, people who committed crimes were found to have numerous disadvantages that limit opportunity. Once a crime is committed, people are no longer able to secure positions in most jobs. Such deficits impact marriage, home ownership, status of financial credit, and more. In effect, they are unable to conform to social convention, regardless of their personal motivation to do so (Sampson & Laub, 1997).

These findings highlight the importance of early childhood interventions aimed at preventing disruptive, suppressive, and/or negative influences on development. However, while early brain development initiates pathways to phenotypes (both healthy and

pathological ones), a degree of plasticity is retained throughout life. Neuroscience studies also support the existence of ongoing influences of social/environmental influences and the capacity for change during adulthood (Rutter, 2006; Shapiro & Applegate, 2000). In fact, many people do not develop problematic outcomes despite early signs, and most adolescents who develop delinquent behavior, remit. Most children with antisocial behavior do not become antisocial adults (Moffitt, 1997).

Moffitt (1993) applied life course principles to address the question of why some individuals who demonstrate antisocial behaviors as children engage in progressively worse behavior in adulthood while others remit. She concluded that these are two distinctly different types of people: 1) a life-course antisocial persistent; and 2) the adolescence-limited antisocial behavior type. She asserted that the life-long persistent subtype is actually a form of psychopathology that is influenced by neuropsychological vulnerabilities and environmental factors. Individuals with the adolescence-limited type, on the other hand, began with antisocial conduct in adolescence, and are less likely to be associated with individual or family risk factors. She asserted that for these individuals the antisocial behavior is motivated by social and biological processes of adolescence, and is learned by mimicking antisocial peers who possess some desirable social power (Moffitt, 1993).

Well-established evidence from life course perspectives on neuroscience reveals the importance of interactions between people and their environments (Rutter, 2006). Individual traits influence the environments they are exposed to, and the environment is equally influential on human development. Genetic expression is realized differentially depending on complex interactions. These interactions begin prenatally, and early experiences in infancy and early childhood are especially formative because so much

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neurological processes are occurring. Structures taking shape influence the continued unfolding of human development across all domains of cognitive, affect regulation, physical development, language, and even moral development (Rutter, 2006).

Clearly there are factors in all domains of the social ecology, from genetic and biological to familial and community, which impact development across the life course (Farrington & Hawkins, 1991; Sampson & Laub, 1997). These factors are not nearly as well understood in young adulthood as they are in childhood because they have not been studied with the same consistency or rigor.

Summary

This section discussed research based on risk and resilience and life course theories that has contributed to understanding young adulthood. This is an extensive body of knowledge about the risk and protective factors associated with childhood and adolescent behaviors (Hawkins, Catalano, & Arthur, 2002). Unfortunately, this knowledge provides only partial explanation of young adult outcomes. Life course theory contributes greatly to understanding the dynamic processes that unfold in differential pathways of young people. Additional research is needed to understand the causes and correlates of the indicators of well-being that occur during young adulthood.

As discussed in Chapter 1, the disparities of indicators of well-being between white and nonwhite group points to the importance of understanding mechanisms of racial discrimination that reinforce institutional racism. The next section discusses perceived racial microaggression as a risk factor.

Racial Discrimination

Little research emerges in the risk and resilience literature regarding differential racial outcomes beyond the acknowledgment of the associations between race and adverse outcomes. Furthermore, specific interpersonal dynamics involving the reinforcement of racism are not examined in the life course literature, although the broader sociocultural context and oppressive forces of racism are understood. Meanwhile, a substantial body of evidence demonstrates associations between perceptions of racial discrimination and negative outcomes for people of color. The social construct of race in the United States is discussed next, followed by a review of the evidence of the negative impact of perceived racial discrimination.

The Social Construction of Race

Every nonwhite group in the United States has faced multiple forms of racism and discrimination (Sue, 2010), both in governmental policy, such as slavery (Lopez, 1994), and other less formal means of social control such as racial profiling (Engel, Calnon, & Bernard, 2002). A major paradox of American culture is the contradiction between the ideals of equality and social justice and the pervasive disadvantage of people of color in the United States. Many Americans believe that racial discrimination is no longer an obstacle to success (Henry & Sears, 2002). Many also believe that those who endure economic hardship are unwilling to take responsibility for their own lives and the opportunity for advantage that is available to everyone (Henry & Sears, 2002) The reality is, however, that although our country has come a long way toward deconstructing racial inequalities in policy, the current disadvantages of people of color in America are pervasive (Smedley &

Smedley, 2005; Sue et al., 2010). In understanding how racial discrimination is perpetuated in the United States, it is first helpful to consider how racial stratification in America was socially constructed.

The categories that form one of our country's most important mechanisms for labeling and categorizing people is based on skin color. People tend to think that the divisions between groups have some biological basis (Smedley & Smedley, 2005), but the American Anthropological Association's Statement on "Race" (1998) asserts that, "any attempt to establish lines of division among biological populations [are] both arbitrary and subjective." Toward determining if there is actual scientific basis for race, a genetic study of a racially/ethnically diverse sample of tens of thousands of individuals, from approximately 500 ethnic groups, was conducted by Cavalli-Sforza, Paolo Menozzi, and Alberto Piazza (1994). The study concluded that there is no scientific basis for race. The phenotypical differences that are core to social categorization in the United States and other race-based societies are superficial physical characteristics that evolved on different continents in adaptation to environmental factors and have very

Dimensions of the Social Construction of Race in Race-Based Societies

- Perceive racial groups as biologically discrete and exclusive groups, and certain physical characteristics become markers of race status.
- Hold that races are naturally unequal and therefore must be ranked hierarchically.
- Assume that each race has distinctive cultural behaviors linked to their biology.
- The idea of inherited forms of behavior is one basis for the belief in the separation of races.
- They assume that the differences among races are therefore profound and unalterable, which justifies segregation.
- Racial classifications are stipulated in the legal and social system (racial identity by law).

(Smedley & Smedley, 2005)

little genetic variation between them. There is far more variation within phenotypes than between them (American Anthropological Associations, 1998; Payne, 1998; Smedley & Smedley, 2005). Furthermore, whenever various groups have come into contact there has resulted further variation (Payne, 1998; Smedley & Smedley, 2005).

Just as the social categories of race based on skin color are arbitrary and fluid in nature, so are the categories based on ethnicity. Human biological variations have little bearing on the social construction of ethnicity. They are defined by cultural commonalities among groups of people such as language, traditions, and beliefs, and usually claimed by within-group members. Like race, the categories of ethnicities change. Ethnic traits are learned and can be adopted (Smedley & Smedley, 2005). Race and ethnicity are defined by their sociocultural context. If one travels to another country, there is likely to be a different conceptualization than what is experienced in the United States. Regardless, the implications of the construction of race/ethnicity are real. There are material artifacts in every aspect of our social fabric, particularly characterized by economic disparities. Every member of our society is acculturated to the rules of racial classification and has an internalized sense of identity that is informed by race (Payne, 1998). To understand the American stratification system of race it is necessary to understand its foundation in the justification of the exploitation of Africans.

The immense wealth and prosperity that resulted from slave labor of people of African descent led many to be highly motivated to maintain institutionalized slavery and find a way to rationalize it morally. This was accomplished by drawing distinct polarization between white and black people and solidifying the stratification through official and legal determination that black was considered an inferior race (Payne, 1998; Smedley &

Smedley, 2005). This matter was addressed through pseudoscientific explanations of innate differences, particularly of the inferiority of black intelligence, and was the basis for policies that served to perpetuate the hierarchical structure with white people in power and distinct other racial categories (Payne, 1998; Smedley & Smedley, 2005). As other groups immigrated into the United States since the nineteenth century, a classification system based on skin color was formed. For example, Native Americans were classified somewhere between white and black (Smedley & Smedley, 2005), and during the Gold Rush of the mid-1800s, when Chinese and Japanese began emigrating to America, they found their class rank in the middle of the social order. Around the same time, Irish immigrants, although homogenized into white over time, found position below whites but above Asians (Smedley & Smedley, 2005).

The scientification of racial/ethnic differences continues to be a powerful mechanism in the conceptualization of racial and ethnic attributes today (Finch, Kolody, & Vega, 2000; Omi, & Winant, 2006). Racial discrimination is frequently obscured by scientific explanations pointing toward genetic racial/ethnic differences that cause health and social problems. For example, black people in the United States have much higher prevalence of serious health problems such as hypertension. There is a tendency to believe that genetic racial differences are underlying causal risk factors. The reality is, however, that in other regions where black is not a minority, like the Caribbean, hypertension is not at all a major health risk (Omi & Winant, 2006; Payne, 1998). A far more likely causal factor of the prevalence of hypertension in black Americans is the immense stresses afforded black people in our country due to exposure to discrimination and economic hardship.

These socially constructed perspectives serve as barriers to deconstructing racism. If we believe that genetic predisposition or cultural factors are the causal factors for disparities in outcomes then we have to accept them as inevitable. Even the acknowledgment that race is closely associated with poverty steers discourse away from racism toward the daunting task of resolving poverty, and arrives again with the sense that nothing can be done about it (Aronson, Fried, & Good, 2001). However, by demystifying the actions and attitudes that are perpetrated, and perceived as harmful, has great potential toward reducing the occurrences and reducing the negative impacts.

Summary

In this study, racial stratification is viewed as a factor that is deeply embedded in American society, despite norms and policies demonstrating that many people do not endorse discriminatory behaviors, and that they do not want to participate in them. Ironically, racial stratification was constructed in our country such that the ideals of freedom and equality are denied for nonwhite people (Hildebrand, 2010). There is a tendency for many to believe that racial discrimination in the United States no longer exists. However, such beliefs are tempered by material evidence of the marginalization of nonwhite groups is pervasive in every measure of success and well-being in our society. In fact, a substantial body of literature, reviewed in the following section, reveals the negative impacts of racial discrimination on people of color (Williams et al., 2003; Krieger & Sidney, 1996; Smith, 1985).

There are numerous behaviors, attitudes, and environmental factors that might constitute racial discrimination. The construct is difficult to define because much of it

depends on someone being a recipient of the discrimination and experiencing it as such. Therefore, the term "perceived discrimination" is often used to account for this dynamic and simply means that it is a measure of self-reported exposure to racism (Brondolo et al., 2008). The term racial microaggression refers to a type of perceived discrimination involving subtle daily racial slights and insults (Sue et al., 2007). The concept of microaggression is gaining increased clinical and research attention because it is believed to have serious deleterious impact on people, and is thought to describe the way many people experience racial discrimination in modern society. The research evidencing the impact of perceived discrimination, including microaggression, on the well-being of people of color is discussed next.

Perceived Racial Discrimination/Microaggression as a Risk Factor

There is unequivocal evidence that racial discrimination plays a significant role as a determinant of well-being on people of color in the United States (Paradies, 2006; Williams et al., 2003). Research has evidenced impact of perceived racial discrimination on a range of outcomes associated with well-being across various nonwhite groups. The following section reviews literature regarding perceived racial discrimination by discussing evidence for the impact on different outcomes of well-being and reviewing differences in various racial groups. The importance of studying perceived racial discrimination in terms of racial microaggression is then discussed.

The most consistent findings of the impact of perceived racial discrimination pertains to the deleterious effects on emotional and mental health. A review of research literature from population studies found that discrimination consistently had positive

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associations with mental health indicators including psychological distress, happiness and life satisfaction, and self-esteem (Williams et al., 2003). Negative impacts on emotional well-being have been established across various racial groups and with children, adolescents, and adults. Physical health indicators of general health status, disabilities and chronic conditions, and high blood pressure and hypertension, also have demonstrated associations, though less consistently (Williams et al., 2003).

Little attention has been given to the relationship between discrimination and behavioral outcomes. There are findings that indicate how perceived discrimination impacts substance use in adults (mediated by distress) in a large sample of African American rural families from the Family and Community Health Study (Gibbons, Gerrard, Cleveland, Wills, & Brody, 2004). Findings from the same study (Brody et al., 2008) found that increases in perceived discrimination from late childhood to early adolescence were linked to conduct problems in adolescence, with higher prevalence for boys. Interestingly, relationships between perceived discrimination and significant impact on conduct and depression were reduced by nurturing parents, prosocial friends, and doing well in school (Brody et al., 2008). In addition, Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, and Zimmerman (2004) examined the influences of perceived racial discrimination and different racial identity attitudes on engaging in violent behavior among 325 African American young adults and found that experience with racial discrimination was a strong predictor of violent behavior.

Wong, Eccles, & Sameroff (2003) analyzed data from a longitudinal study, with 629 African American adolescents. The authors examined associations of adolescents' perceptions of school-based discrimination and academic outcomes such as if school was

useful, academic self-competence, and grades. This is one of the only studies regarding the impact of perceived racial discrimination on academic outcomes. The participant's perceptions of racial discrimination were significantly associated with beliefs that that school and academic performance were less important to them and their futures. Perceived racial discrimination was also associated with less belief in participants' academic competence.

Many researchers have advanced the notion that perceived discrimination is likely to have cumulative and enduring effects (Brondolo et al., 2008; Gibbons et al., 2004), though the research in this area is almost entirely cross-sectional. The Family and Community Health Study is one of very few longitudinal panel studies in the literature that has addressed the impacts of perceived racial discrimination on well-being. Longitudinal data from the study showed that there were cumulative effects of perceived discrimination on distress on both parents and children of the families in the study. There were also effects of both the parental and child perceptions of discrimination on each other's distress (Gibbons et al., 2004). Another article from the same study found that increases in perceived discrimination from late childhood to early adolescence were linked to depression (Brody et al., 2008).

The general pattern establishing the damaging effects of perceived discrimination is supported with substantial evidence across various racial groups. However, little is known about how different racial groups are impacted. African Americans have been the subject of studies on the impact of perceived discrimination more so than any other ethnic group. Researchers consistently find that perceived racial discrimination has an inverse relationship with of a range of emotional health indicators such as depression, anxiety, and

self-esteem, and stress-related health problems in African Americans (Brondolo et al., 2008; Broman, 1997; Finch et al., 2000; Williams et al., 2003; Klonoff, Landrine, & Ullman, 1999; Utsey, Ponterotto, Reynolds, & Cancelli, 2000).

Since this racial group has been studied more rigorously, more specific findings about what seems to be particular to African Americans have been presented in the literature. Researchers have posited that African Americans experience cumulative effects of perceived discrimination so that awareness of the existence of deep-rooted racism, and experiences incurred in the life leads to an increased vigilance to perceived discrimination. Considerable stress can accumulate from this dynamic and a theory of how stress is related to outcomes of mental and physical health has a strong presence in the literature. Hypertension and high blood pressure are physical health problems that have high prevalence in African Americans and the conditions have been posited to be caused by stresses integral to poverty and racism. Indeed, perceived racial discrimination has shown associations with these health problems in African Americans in several studies (Williams et al., 2003).

Important research has also been conducted with black college students regarding the impact of stereotypes of academic performance, called "stereotype threat". A psychological process occurs for some black students in which they enter experiences that test or challenge their intellectual abilities (Aronson et al., 2002). One result that can occur is that the perceived threat of being measured against the stereotype that black people are less intelligent than other students provokes anxiety. Laboratory studies have tested the effects of stereotype threat by introducing stressors such as telling research subjects that a test they are about to take is a serious measure of their intelligence, or asking them to

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indicate their race on a test booklet. Anxiety was found to increase in these situations per self-report and/or blood pressure. They also experienced significantly reduced their performance on tests like the GREs. Meanwhile, other participants in these studies were told that the test was not an important measure of ability and demonstrated improved performance to such an extent that the performance gap between African Americans and whites was eliminated in some cases (Aronson et al., 2002).

Research with Latino youth has found that perceived discrimination is a common experience (Umaña-Taylor, & Updegraff, 2007; Fischer, Wallace, & Fenton, 2000; Supple, Ghazarian, & Frabutt, Plunkett, & Sands, 2006; Szalacha, Erkut, Garcia, Alarcon, Fields, & Ceder, 2003). Associations have been found between perceived discrimination and depressive symptoms and poor mental health in Mexican-American and Puerto Rican children, adolescents, and adults (Romero & Roberts, 2003; Szalacha et al., 2003; Torres, 2009). Several studies have found the depression occurs at a higher rate in Latinos, particularly Mexican-Americans, than in other groups, including white, African-American, and Asian-American adolescents (Roberts, Roberts & Chen, 1997; Joiner, Perez, Wagner, Berenson, & Marquina, 2001). Perceived discrimination has been found to have a negative association with self-esteem (Fischer et al., 2000; Romero & Roberts, 2003; Szalacha et al., 2003). In a study with Latino adolescents, as participants reported more perceived discrimination, they reported lower self-esteem (Umana-Taylor & Updegraff, 2007)

Studies with Latinos suggest that acculturation status and darkness of skin color may have a role in the extent to which people from this nonwhite group experience discrimination. For example, the National Survey of Latinos (2002) found that 55% of Spanish-dominant Latinos reported that they experienced perceived racial discrimination,

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compared to 38% of bilingual Latinos and 29% of those who predominantly speak English. Thirty-five percent of the overall Latino sample attributed experiencing discrimination to their English proficiency (Araújo & Borrell, 2006). Latinos born in the United States with darker skin reported more depression, and a number of studies establish worse educational and occupational outcomes for Latinos with darker skin color (Araújo & Borrell, 2006).

Researchers examining racial discrimination with Asian participants have found that Asians tend to feel like they are treated like perpetual foreigners no matter how long they and their ancestry may have been rooted in America (Sue, 2010). In addition, Asians in the United States have described experiencing what is referred to as "the model minority myth". Nonwhite populations that as a whole fare well educationally and economically in the United States often feel they are resented or that people respond to them with indifference and do not acknowledge that Asians are impacted by racial discrimination (Hwang & Goto, 2008). In fact, numerous associations have been found in studies with Asians between racial discrimination and compromised well-being. One study compared the impact of perceived discrimination on samples of Latino and Asian college students. They found similar results for the two groups. Higher reports of discrimination were associated with higher risk of psychological distress, suicidal ideation, higher state and trait anxiety, and greater risk of clinical depression (Hwang & Goto, 2008).

Additionally, a review of 62 empirical articles that examined the relationship between perceived discrimination and health among Asian Americans, found many significant relationships between discrimination and compromised physical health, and most of the articles presented findings for associations with mental health problems (Gee, Ro, Shariff-Marco, & Chae, 2009). Detrimental impact of discriminatory events have been

evidenced on stress and depressive symptoms among Chinese immigrants (Dion, Dion, & Pak., 1992), Korean immigrants (Noh & Kasper, 2003), Filipino Americans (Mossakowski, 2003), and Southeast Asian refugees (Noh et al., 1999) have also been noted.

The literature on perceived discrimination reviewed so far confirms the assertion that perceived racial discrimination is in fact a risk factor for negative outcomes of well-being for nonwhite people in a racially stratified culture. People of color tend to have experiences of perceived racial discrimination, and there is frequently a pattern that the more racial discrimination people experience, the higher the impact. In addition, ample evidence shows there are relationships between perceived racial discrimination and compromised emotional well-being as well as physical health. Far fewer research studies have been conducted regarding behavioral outcomes of substance abuse and crime/delinquency, or academic outcomes.

Another critically important area of evidence and discussion in the literature that begins to emerge is that people from different racial groups have some differential outcomes, as well as differences in the themes involved in their perceptions of discrimination. This may have to do with their place in the racial stratification, historical oppression of their racial group, specific stereotypes, level of acculturation, different cultural factors, their success in establishing the roles and expectations of adulthood, or any number of other factors. The complexities of the dynamics of racial discrimination begin to surface as the reality of its presence and impact becomes undeniably revealed. Clearly there is a disconnection between the pervasiveness of perceived racial discrimination and social norms and policies that are incongruent with evidence of racial discrimination.

Unfortunately, tools for assessing perceived discrimination tend to be very general

about the experiences of discrimination and do not really address the dynamics underlying

the construct, or the differences that different groups might experience (Hwang & Goto,

2008; Landrine, Klonoff, Corral, Fernandez, & Roesch, 2006). Several authors have called

for measures that have stronger psychometric qualities and do a better job at

conceptualizing and defining the construct of perceived racial discrimination (Paradies,

2006; Williams et al., 2003). The emergent focus on microaggression in the research on

discrimination begins to address these problems.

Microaggression

The term *racial microaggression* was first presented by Chester Pierce who

described it as a social problem in itself for black Americans. Pierce and his colleagues

(1978, 1989) defined racial microaggression as subtle, stunning, often automatic, often

nonverbal exchanges that reinforced power differential between groups. They explained

that often the offenses were superficially not harmful but that for blacks there is a

cumulative, constant burden that is perpetually present in black-white interactions

(Solorzano, Ceja, & Yosso, 2000). Many experts studying racial discrimination explain that

when perceptions of discrimination are more subtle it is harder to interpret, which can

cause even more psychological distress than blatant forms of discrimination (Noh, Kaspar,

& Wickrama, 2007; Sue, 2010).

Research on microaggression is just emerging. Recently, the construct of

microaggression has been expanded to describe experiences of other nonwhite racial

groups (Sue, 2010), as well as to describe and explain other forms of discrimination such as

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the experiences of women and GLBTQ people (Balsam, Molina, Beadnell, Simoni, & Walters, 2011). The focus to date has been on how microaggression impact nonwhite persons' experiences in the social systems in which they interact. Authors have also focused on how educators and clinicians often can perpetrate microaggression that harm students and clients and undermine learning and healing processes (Sue, 2010), as well as create barriers to nonwhite people accessing educational, health, and mental health services have also been noted in the microaggression literature (Balsam et al., 2011). Other studies have found that microaggression can lead to unsatisfactory work relationships (Constantine & Sue, 2007) and perceptions of hostility in school (Smith et al., 2007).

Most studies of microaggression thus far have been qualitative, focusing on gathering descriptions of experiences and responses that have only begun to be operationalized into quantitative scales. The scant literature regarding research studies on racial microaggression is also almost exclusively with college students. In one qualitative study, Smith, Allen, & Danley (2007) found that black males who experienced microaggression endorsed themes of (a) anti-black male stereotyping and marginality, which caused (b) extreme hypersurveillance and control. They related these microaggression to psychological stress responses symptomatic of what the authors called "racial battle fatigue", including frustration, shock, anger, disappointment, resentment, anxiety, helplessness, hopelessness, and fear. Another qualitative study with African American students in a predominantly white campus described racial tension as a constant experience (Solorzano et al., 2000). Subjects noted the subtle racial discrimination in the curriculum, lowered academic expectations of them, and feeling like their opinions did not matter. Interestingly, they described finding "counter-spaces" or contexts where they would

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gather with other African Americans as a means of finding respite from these dynamics and to cope with it ongoing (Solorzano et al., 2000).

Sue, Bucceri, Lin, Nadal, & Torino (2009) used a small qualitative focus group approach with Asian Americans and arrived at eight major themes of perceived microaggression directed toward this group: (1) alien in own land, (2) ascription of intelligence, (3) exoticization of Asian women, (4) invalidation of interethnic differences, (5) denial of racial reality, 6) pathologizing cultural values/communication styles, (7) second-class citizenship, and (8) invisibility. These findings emphasize that the types of subtle racism directed toward Asian Americans may differ substantially from other nonwhite groups.

Torres, Driscoll, & Burrow (2010) conducted a mixed-methods study that employed a longitudinal design with two data collection time points one year apart in order to establish that racial microaggression were related to mental health outcomes. Qualitative analyses found that that African American doctoral students or graduates described a number of barriers related to race, including being treated like a criminal or a second-class citizen, having one's personal ability underestimated or ignored, and feelings of isolation. The specific racial microaggression themes that emerged in the qualitative analyses were 1) Assumptions of Criminality/Second-Class Citizen, 2) Underestimation of Personal Ability, and 3) Cultural/Racial Isolation. These findings were used to construct an instrument that was used in the quantitative part of the study. Findings supported the qualitative findings that the negative influence of racial microaggression on participants' mental health persisted over a year. Sellers and colleagues have tested a measure of racial microaggression that validated one larger construct of microaggression and found negative

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associations between racial microaggression and mental health among African American adolescents (Sellers, Copeland-Linder, Martin, & L'Heureux Lewis, 2006) and first-year college students (Sellers & Shelton, 2003).

Summary

Research regarding microaggression demonstrates the importance of conducting investigations to assess the impacts of perceived racial discrimination on nonwhite groups. An ultimate goal would be to train educators and clinicians, employers, and doctors to be aware of, and to stop perpetrating, microaggression and to ensure that when nonwhite individuals interact with services and institutions that they are helped and not harmed. This could be extremely valuable for young adults in need of assistance and/or developing roles as students and employees.

According to risk and resilience theory, if we can identify the specific protective factors that buffer their impact of racial discrimination, then interventions can be developed to promote resilience and prevent the negative outcomes. Some studies in the literature, have tested this or similar models. These are discussed next. Ethnic identity in particular emerges as a possible mediator between racial discrimination and outcomes of well-being. The evidence for ethnic identity as a protective factor is reviewed below.

Ethnic Identity as a Protective Factor

From a risk and resilience perspective there are likely to be protective factors that buffer the effects of racial discrimination and result in differential outcomes for individuals and/or groups as a whole. For some, the interaction of the risk of perceived discrimination

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and protective factors may possibly even build competencies and strengths that impact positive trajectories of success and well-being in young adulthood. While in the process of identity formation, youth of color negotiate how the cultural aspects of their identity play a role in who they are and decisions they make (Markstrom-Adams, 1992). It is posited that as people experience different social contexts and manage various dynamics related to their race/ethnicity, they might develop a strong sense of self and enhanced self-esteem and efficacy that can provide protective qualities and emergent resilience. Those who have not explored their ethnic identity, because they have not been exposed to experiences in which they had to, might have an unresolved sense of ethnic identity (Phinney et al., 1997).

Research findings emerge in the racial discrimination literature that suggest that ethnic identity can mediate the impact of racial discrimination on the well-being of people of color from various ethnic and age groups (Umaña-Taylor & Updegraff, 2007; Yip et al., 2008). Ethnic identity has been related positively to measures of psychological well-being such as coping ability, mastery, efficacy, self-esteem, and optimism, and negatively to measures of loneliness and depression, and quality of life indices (Phinney, 1992; Phinney et al., 1997; Roberts et al., 1999; Umaña-Taylor & Updegraff, 2007; Utsey, Chae, Brown, & Kelly, 2002).

High levels of ethnic identity have been found to serve as a buffer, or protective factor, to impacts of discrimination (Yip, 2008) to such an extent that samples of Latino adolescents and adults have shown reductions in depressive symptoms with higher levels of perceived discrimination (Finch et al., 2000; Romero & Roberts, 2003; Szalacha et al., 2003), and aspects of ethnic identity have buffered the effects of perceived discrimination on the psychological distress of African Americans (Sellers et al., 2006; Sellers & Shelton,

2003). Such findings suggest underlying interaction effects between the risk of discrimination with some protective factors resulting in resilience (Umaña-Taylor & Updegraff, 2007).

Umaña-Taylor & Updegraff (2007) found that higher levels of ethnic identity were associated with higher self-esteem. Another study found that as connection to ethnic group increased, greater perceived discrimination was associated with smaller decreases in self-concept of efficacy (Wong et al., 2003) Findings by Bowman and Howard (1985) observed a relationship between racial socialization (the subtle and unintended transmission of parents' world views about race and ethnicity) and academic outcomes. Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, Zimmerman (2004) tested the buffering effects of racial identity attitudes on the relationship between racial discrimination and violent behavior. Results indicated that the centrality of race for males and the meaning others attribute to being black for both males and females were moderators of the influence of racial discrimination on violent behavior.

In a study of college students, Jackson and Heckman (2002) found that white people tend not to endorse the belief that they have racial identity. In addition, Grossman and Charmaraman (2009) studied racial identity in a white sample using mixed methods and found that white racial identity is often expressed with discomfort and distress due to negative external perceptions of white racial identification. Such research findings may provide important knowledge toward developing racial discrimination prevention interventions with white individuals.

French and Chavez (2010) found that the centrality of ethnic identity to students' self-image and the sense that others believed Latinos were good, were associated with

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lower levels of depression. In addition, comfort with other ethnic groups was related to lower depression and lower loss of control. The students in this study attended an ethnically diverse campus. The findings suggested that it was protective to be comfortable with members of other ethnic groups, and to believe that others think Latinos are good, while maintaining their Latino identity as central to their self-image. Important patterns emerged in the interactions between ethnicity related stressors and ethnic identity in their prediction of well-being. Ethnic identity, or having a strong Latino self-image, was found to be protective of well-being, but only when participants felt that stereotypes were not being perpetrated. So, although ethnic identity was protective, the negative impact of the fear of confirming stereotypes overrode the protective nature of ethnic identity.

One area of continued investigation is the possibility that racial and ethnic identity have differential salience depending on the age of an individual. Studies examining the development of identity during adolescence have suggested that transitions from middle school to high school are a time of increased commitment to ethnic identity (Altschul, Oyserman, & Bybee, 2006; French & Chavez, 2006) and that the transition from adolescence to adulthood may be an especially important time for ethnic identity formation. Although there is a dearth of research on this topic, adults up to 30 years old have been found to report more distress from discrimination than older age groups (Yip et al., 2009). In addition, there have been findings indicating that college students often experience ongoing development of identity, including ethnic identity (Phinney, 1992).

Summary

Research on the topic of ethnic identity supports the notion that ethnic identity may be understood as a protective factor against the negative effects of microaggression. In addition, some evidence suggests that the relationship between these two constructs, and their impact on measures of well-being, may differ by racial group. Although the theoretical basis is strong, the body of literature is small and further studies are needed. The next section summarizes the chapter and presents the purpose of the current research study.

The Current Study

Young adulthood is a distinct developmental life stage characterized by a transition to the roles and responsibilities of adulthood. Navigating this transition can be very stressful and challenging, especially for people with vulnerabilities from childhood risk exposure, current antisocial behaviors, and lack of academic success. Unfortunately, these individuals often have limited financial resources or practical guidance. Comprehensive public supports to young people in the transition to adulthood are often inadequate and many of the services that are provided in childhood and adolescence become no longer available when the legal adulthood is met.

Meanwhile, many young adults grapple with behavioral problems and experience low academic achievement, compromising their well-being. Negative outcomes in young adulthood are only partially explained by risk and resilience and life course theories. The lack of attention to outcomes for people of color from these theoretical perspectives needs to be addressed. Research is needed to identify risk and protective factors occurring in the current social ecologies of young adults. Further, racial disparities must be addressed

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directly in these investigations. Racism in our society has clear historical roots and continued influence in our social structure. Yet, how racism operates as a risk factor over the life course is seldom discussed. There is a tendency for many people to believe that racial discrimination in the United States no longer exists. However, the material evidence of the marginalization of nonwhite groups is pervasive in every measure of success and well-being in our society (Sue et al., 2010).

Evidence presented in this chapter details the negative impacts of perceived racial discrimination on outcomes of emotional and physical well-being, antisocial behaviors, and academic outcomes for people of color. Differential impacts on various nonwhite groups were discussed, pointing to the need to better understand the nuances of the construct of perceived racial discrimination. This has led to an emergent body of research regarding a type of perceived racial discrimination known as racial microaggression. Research to date regarding microaggression demonstrates the importance of continued investigation of the impact of perceived racial discrimination on nonwhite groups. There are likely to be important implications for ensuring that when nonwhite individuals interact with services and institutions that they are helped and not harmed, which could be extremely valuable for young adults interacting with those systems.

The current study examines racial microaggression as a risk factor and ethnic identity as a protective factor within a risk and resilience framework. Specifically, the study examines the relationships among risk and protective factors that occur during childhood and adolescence, the extent to which young adults of color experience perceived racial microaggression, the strength of ethnic identity, and outcome measures of behavioral and academic well-being in young adults. Participants were young adult undergraduate college

students at Metropolitan State College of Denver. Participants were randomly selected after stratifying by racial group.

The specific research questions that guided the study and the hypothesized results were:

1. What is the relationship between childhood risk and protective factors for problem behavior and course self-efficacy in young adult college students?

It was hypothesized that commonly identified childhood risk and protective factors would impact outcomes of behavioral and academic well-being during young adulthood. Risk factors were expected to have positive associations with young adult substance abuse and criminal intent, and a negative association with college self-efficacy. Childhood protective factors were conversely expected to have negative associations with young adult substance abuse and criminal intent and positive relationships with college self-efficacy.

2. What is the impact of perceived racial microaggression and ethnic identity on well-being of young adults after controlling for the influence of risk and protective factors?

The relationships between perceived microaggression and the outcomes of well-being were expected to be similar to the associations between childhood risk factors and well-being. Meanwhile, the relationships between ethnic identity and the measures of well-being were expected to reflect similar patterns to those found for childhood protective factors. These relationships were expected to be observed independent of the impacts of the commonly identified childhood risk and protective factors.

3. Do relationships among childhood risk and protective factors, perceived racial microaggression, ethnic identity, and young adult problem behavior and course self-efficacy differ between racial/ethnic groups?

The literature reviewed regarding racial microaggression and ethnic identity, and the relationship between these two constructs, points to differential experiences of people from different racial groups. It was therefore expected that findings regarding Question 3 would show that the patterns of associations involving perceived microaggression and ethnic identity would differ by racial group.

Chapter Summary

The study questions and hypothesized relationships specified above emerged from a review of current empirical evidence regarding the relationship between risk and protection, racial discrimination, and well-being in young adulthood. The three key research questions are grounded in the theoretical and empirical knowledge reviewed in this chapter and are intended to address existing gaps in our understanding of young adulthood. Methods used to answer these questions are described in the following chapter.

CHAPTER 3

RESEARCH METHODOLOGY

Chapter 2 presented an overview of the research literature surrounding the developmental period of young adulthood. Social, emotional, and behavioral problems found commonly during young adulthood, and the importance of developing interventions to address these problems, was discussed. Concern that nonwhite racial and ethnic groups are overrepresented across many of the problems experienced by young adults was highlighted. The theoretical frameworks of risk and resilience and life course theory were discussed for their potential to explain the causes of these negative young adult outcomes. This study aims to extend current knowledge about young adulthood by examining racial and ethnic microaggression as a risk factor and ethnic identity as a protective factor for outcomes of well-being among undergraduate college students enrolled in an urban public college. This chapter presents the methodology of the study. Design elements, data collection procedures, sample, measures, and analytic approach used in the study are described.

Data Collection Procedures

Participants were undergraduate students enrolled at Metropolitan State College of Denver (MSCD). The student population at MSCD, in general, are young adults who are of limited wealth and, through pursuit of a college education, are actively in the process of establishing roles and responsibilities as young adults. According to data made available by

the Office of Institutional Research (OIR) at MSCD, in the fall of 2011, there were 23,578 students enrolled in undergraduate programs at MSCD with mailing addresses in 7 counties in the Denver Metro area. MSCD is publically funded and the approximate cost of tuition is $3,000 per year. Reportedly, 39% (n=9,281) of all enrolled students receive PELL grants or Veteran's benefits (OIR, 2012).

The MSCD student body is diverse. Fifty-four percent (n=12,724) of undergraduate students are female and 46% (n=10,854) are male. White students comprise 63% (n=14,855) and students of color account for 32% (n=7,443) of the student body. The largest groups of nonwhite undergraduate students are Latino/Hispanic (18%, n=4,281), followed by black or African American (6%, n=1,470), and Asian (4%, n=827). The remainder of the student body is comprised of American Indian or Alaskan Native students (1%, n=183), people who noted they belonged to two or more races (3%, n=614), and other/unknown (5%, n=1,170).

The sampling frame included all undergraduate students at MSCD between the ages of 18 and 35 from the four largest racial and ethnic groups (white, black, Latino/Hispanic, and Asian). It was determined that there were not adequate numbers of any other racial or ethnic group to be part of this study. Since the proportion of nonwhites was relatively small, the sampling frame was first stratified by racial and ethnic group membership. An oversampling probability procedure was then used to ensure adequate representation of each racial and ethnic group in the study sample. A total of 3,000 students, 750 from each of the racial and ethnic groups, were invited to participate in the study.

An email address dedicated to the study and a listserv of all student email addresses were set up by Information Technology (IT) personnel. These procedures enabled the

survey to be sent to all prospective participants at once. The emails contained a brief description of the study and provided a link to the survey. The survey was constructed using a web-based software program called Qualtrics (www.qualtrics.com, Inc.). This procedure allowed participants to remain anonymous. Several strategies were employed to enhance the response rate. First, an incentive was offered. Participants who completed the survey had the option to enter their email address in a random drawing for gift cards to Amazon.com. In addition, four follow-up reminders were sent during the following two weeks, scheduled on different days of the week, and times of day, in order to maximize the possibility that students would be reminded about the survey at a time when it would be possible for them to sit down and complete it. Lastly, the Chair of the Latino/Hispanic Studies Department at MSCD sent an email from his office expressing his support for the study to the listserv. The survey generally took participants between 20 and 40 minutes to complete.

Sample

Survey respondents were included in the study sample if they completed at least one of the measurement scales found in the body of the survey. Despite the efforts described above to enhance response rate, this rate was fairly low. The final N was 486, representing a response rate of 16%. (Chapter 5 includes a discussion of the possible causes and implications of this response rate.)

Table 3.1 presents the demographic data for the sample. The average age of the participants was 24 ($SD=4.3$). Although 50% ($n=1,500$) of those who were invited to complete the survey were female, 64% ($n=312$) of the respondents were female. The

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distribution of racial groups in the sample provided for a diverse study sample; 31% (n=145) of subjects were white, 25% (n=117) were Asian, 24% (n=115) were Latino/Hispanic, and 21% (n=98) were black. In addition, 8% (n=40) of the participants identified themselves as being GLBTQ (gay, lesbian, bisexual, transgendered, or queer). Eighty-three percent (n=401) of all subjects were born in the United States. The average year in school for the participants was third year, with approximately 10% (n=48) indicating they were in their sixth or seventh year. A little more than half of the participants were in intimate relationships, and 31% (n=151) were living with their partners. Almost 50% (n=241) of the participants were living with one or both of their parents, and approximately 17% (n=81) of the participants indicated that they were parents themselves. Lastly, almost 50% (n=236) of the respondents worked 30 or more hours per week during the past month.

Table 3.1
Sample Demographics (*N*=486)

		N	(%)
Age	18–23	247	(51.6)
M=24	24–29	168	(34.6)
SD=4.3	30–35	61	(12.6)
Sex	Male		(35.8)
	Female		(64.2)
Race/ethnicity	White	145	(30.5)
	Asian	117	(24.6)
	Latino/Hispanic	115	(24.2)
	Black	98	(20.6)
Sexual orientation	Straight	443	(91.7)
	GLBTQ	40	(8.3)
Born in the U.S.?	Student	401	(82.5)
	Mother	295	(61.6)
	Father	294	(61.4)
Year in college	1	81	(16.7)
	2	90	(18.6)
	3	110	(22.7)
	4	87	(17.9)
	5	69	(14.2)
	6	22	(4.5)
	7 or more	26	(5.4)
In an intimate relationship?		259	(53.6)
Who do you live with?	Partner	151	(31.1)
	Mother	199	(40.9)
	Father	151	(31.1)
Number of children	0	403	(82.9)
	1	40	(8.2)
	2	23	(4.7)
	3	14	(2.9)
	4+	6	(1.2)
Hours of work per week in the past month	0	138	(28.5)
	1–29	111	(22.9)
	30–40	90	(18.6)
	More than 40	146	(30.1)

Measures

The survey was constructed using the Qualtrics (www.qualtrics.com, Inc.) web-based software, a program designed to construct and manage survey questionnaires. The program provides considerable flexibility in the organization and presentation of questions, and is able to compile the data into a number statistical software formats. SPSS was used to manage the survey data.

A pilot test was first conducted with 15 graduate students at the University of Denver. Feedback was gathered in person through classroom visits, as well as via email. Several minor changes were subsequently made to correct typographical errors and clarify item wording. Two items were also added to the ask subjects to identify their sexual orientation. Several pilot participants expressed that sexual orientation is part of their basic identity and felt that data should be gathered, particularly when the issue under study is discrimination (albeit racial and ethnic discrimination). A copy of the final survey is found in Appendix A.

The independent (exogenous) variables included in the study were four childhood risk and protective factors, racial and ethnic microaggression, and ethnic identity. Three dependent (endogenous) constructs, self-efficacy, substance abuse, and criminal intent, were measured. Table 3.2 presents the scales used in the study to measure the constructs, the number of participant responses to the scales, the number of items in each scale, and their demonstrated internal consistency (reliability) in the current study with the Cronbach's alpha coefficient. (A table listing each of the scales and all of the items for each scale can be found in Appendix B.) Each of the measures is discussed below.

Table 3.2

Measures and Instruments

Instrument	N^1	# of Items	Alpha
Independent variables			
SDRG Childhood Risk and Protection Scales (Arthur et al., 2002)			
Individual: Early Onset of Negative Behavior	484	8	0.764
Family: Family Conflict	464	3	0.874
School: Commitment to School	443	5	0.906
Neighborhood: Neighborhood Attachment	441	3	0.885
Racial and Ethnic Microaggressions Scale (REMS) (Nadal, 2010)	390	45	0.920
Assumptions of Inferiority	406	8	0.911
Second-Class Citizen and Assumptions of Criminality	403	7	0.885
Microinvalidations	403	9	0.845
Exoticization and Assumptions of Similarity	400	9	0.831
Environmental Microaggressions	402	7	0.716
Workplace and School	403	5	0.806
Multigroup Ethnic Identity Measure (MEIM) (Cognitive) (Phinney, 1992)	397	5	0.760
Dependent variables			
College Self-Efficacy Instrument (Course) (Solberg, 1993)	378	7	0.871
CRAFFT (Knight et al., 1999)	388	6	0.730
Criminal Intent (Backstrom & Bjorklund, 2008)	388	7	0.747

[1]Total sample size was 486. The values in this column represent the number of subjects who completed each respective measure or scale.

Independent Variables

Childhood risk and protective factors were measured using four scales that were developed by investigators from the Social Development Research Group (SDRG) at the University of Washington. The scales were selected to measure factors across the domains of individual, family, school, and neighborhood. Two of the scales—early onset of antisocial behavior and family conflict, measured risk factors—and the other two scales—school engagement and neighborhood attachment—measured protective factors. These scales appear frequently in the risk and resilience literature and are part of the Community that Cares (CTC) survey that is endorsed by the Center for Substance Abuse Prevention (CSAP) as model items for measuring etiological factors of substance use, delinquency, and academic success (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002). The items were modified slightly to ask for retrospective responses from young adults. Specifically, participants will be prompted with a question that asks them to think back on their childhood before the age of 18. The 8-item, **early onset of negative behavior** scale asks respondents to mark the age they first participated in negative behaviors such as drug and alcohol use and fighting. Research has demonstrated that the earlier a person begins to use any drug, the greater the likelihood of developing problematic use (Arthur et al., 2002). Likewise, early involvement with criminal behavior (offenders younger than 13) are at greater risk of developing serious criminal behavior (Wasserman, Keenan, Tremblay, Coie, Herrenkohl, Loeber et al., 2003). The alpha reliability for this scale was .76.

The **family conflict** scale included three questions that asked respondents to indicate how much they agree (on a 4-point scale "YES yes no NO") with the statements about the occurrence of arguing and yelling in their families. Research findings

demonstrate that children who grow up in families with high conflict are at higher risk of delinquency and drug use (Arthur et al., 2002). The alpha reliability for this scale was .87.

The **commitment to school** scale asks five questions about school enjoyment and importance. Participants responded on a 4-point scale ("YES yes no NO") choosing which response fit best with their childhood experience. High commitment to school is negatively related to drug use. In addition, drug use is less prevalent among children who expect to attend college (Arthur et al., 2002). The alpha reliability for this scale was .89.

Neighborhood attachment is a 3-item scale. Participants are presented with four possible responses ("YES yes no NO") and asked to indicate which response best fits their own childhood experiences. The content of the items asked about if they liked their neighborhood growing up or if they were sad to leave. Low levels of bonding to the neighborhood have been shown to be related to high rates of crime and drug use (Arthur et al., 2002). The alpha reliability for this scale was .89.

Microaggression. The **Racial and Ethnic Microaggressions Scale (REMS)** (Nadal, 2010) was used to measure respondents' experiences of perceived discrimination. The author developed the scale with other researchers based on theoretical constructs that came out of a number of qualitative studies (Nadal, 2011). The instrument contains 45 items, consisting of six subscales: Participants were asked to think about their experience with race and then respond to each item indicating how many times they had experienced the event in the past 6 months. The alpha for the total REMS was .92. Reliability coefficients for the sub-scales described below ranged from .72 to .91.

Assumptions of Inferiority included eight statements in which someone made assumptions, such as low intelligence and social status, because of their race. For example, "Someone assumed that I would not be educated because of my race." The items in the subscale, **Second-Class Citizen and Assumptions of Criminality,** involves seven statements about experiences in which someone acted in ways that demonstrated fear or avoidance because of their race. One item, for example, reads, "Someone avoided walking near me because of my race." The **Microinvalidations** nine subscale items have to do with experiences in which race and racial difference is minimized or invalidated. For example, "Someone told me that people should not think about race anymore", is the last item in the subscale. **Exociticism and Assumptions of Similarity** includes nine statements that involve experiences in which participation in certain aspects of culture were expected based on the assumption that all people of that race would be the same. For example, one item reads, "Someone asked me to teach them things in my 'native language'." Other items in this subscale are more about experiences of objectification because of race. An example of this is an item which states, "Someone wanted to date me only because of my race." The subscale, **Environmental Microaggressions,** presents seven statements about observations of people "of my race" being presented positively in the media or in highly influential social contexts or government positions. For example, "I observed people of my race portrayed positively in movies", and "I observed that someone of my race is a governmental official on my state." The last subscale, **Workplace and School Microaggressions** consists of five items that describe experiences occurring in the context of school or work in which there were negative expectations or treatment due to race. One

item, for example, reads, "An employer or co-worker was unfriendly or unwelcoming toward me because of my race."

Ethnic Identity. The **Multigroup Ethnic Identity Measure (MEIM)** (Phinney, 1992) was used to assess levels of ethnic identity. This instrument was developed for research with adolescents and young adults, and is unique in its ability to be used across racial/ethnic groups (Ponterotto, Gretchen, Utsey, Stracuzzi, & Saya, 2003). Reliability of the scale has been demonstrated previously with a wide range of age groups and ethnicities (Roberts, Phinney, Masse, Chen, Roberts, & Romero, 1999). Respondents were asked to choose the response that best fits how they felt about each statement and offered a 4-point scale, ranging from "Strongly agree" to "Strongly disagree". The 5-item **cognitive** subscale used in the current study assesses developmental and cognitive components of ethnic identity search. (The remaining seven items measure the affirmation, belonging, and commitment components of ethnic identity. The exclusion of this subscale from the analysis is explained in the following chapter.) The alpha reliability for the cognitive scale of the MEIM was .76.

Dependent Variables

Self-efficacy was measured using the **course efficacy** subscale of the **College Self-Efficacy Instrument** (Solberg et al., 1993). This instrument assesses college students' sense of confidence in the ability to manage tasks related to course completion that are integral to college participation such as "Do well on your exams" and "Manage time effectively". The subscale consists of seven items rated on a 0-10 point scale to the

question, "How confident are you that you could successfully complete the following tasks?" The response choices range from not at all confident to extremely confident. The alpha for this scale was .87.

Substance Abuse was measured with an instrument called the **CRAFFT** (Knight et al., 1999). This 6-item tool assesses problematic alcohol and/or drug use in adolescents and young adults. CRAFFT is an acronym using the first letters of the key words in from the six questions: "Have you ever ridden in a CAR driven by someone (including yourself) who was 'high' or had been using alcohol or drugs?"; "Do you ever use alcohol or drugs to RELAX, feel better about yourself, or fit in?"; "Do you ever use alcohol or drugs while you are by yourself, ALONE?"; "Do you ever FORGET things you did while using alcohol or drugs?"; "Do your family or FRIENDS ever tell you that you should cut down on your drinking or drug use?"; and "Have you ever gotten into TROUBLE while you were using alcohol or drugs?"

In-depth diagnostic assessment of substance use disorders was not possible for this study and the CRAFFT is a brief tool that allows for the assessment of problematic alcohol and/or drug use. It has been tested to ensure it has adequate sensitivity for identifying individuals who have any substance abuse problem, and disorder, and substance dependence. Respondents indicated "Yes" or "No" if these questions were true for them. The alpha reliability for the CRAFT was .73.

Criminal Intentions was measured with the 7-item C**riminal Intent** scale, developed from items drawn from the Measures of Criminal Attitudes and Associates

(MCAA) survey (Backstrom & Bjorklund, 2008). This scale measures antisocial attitudes and criminal thinking that have been demonstrated to predict criminal behavior and recidivism (Mills, Anderson, Kroner, 2006). Participants were asked to choose from five response choices, ranging from "Strongly disagree" to "Strongly agree" in response to statements asking about the likelihood or willingness of engaging in, or getting away with, certain behaviors. One item, for example, states, "I could see myself lying to the police". Another reads, "I could easily tell a convincing lie." The alpha reliability for this scale was .75.

Analytic Approach

Preparing the dataset for analyses began by downloading survey responses directly from Qualtrics to SPSS files. Participants were assigned unique identification numbers. Respondent data were included if subjects had completed at least one of the study scales. Missing data were left blank and all analyses used list-wise deletion.

Table 3.2 shows the numbers of participant responses available for each scale used in the analysis. As shown in this table, the percentage of missing data found in the study did not pose a significant analytic problem. Response rates to the scales decreased slightly as the survey progressed. That is, participants were more likely to complete items asked toward the beginning of the survey rather than at the end. Risk and protective factor scales displayed the least missing values; there was a response rate of nearly 100% for the early onset of negative behavior scale followed by 95% for family conflict, 91% for commitment to school, and 90% for neighborhood attachment scales. Questions from the REMS and MEIM instruments were asked toward the middle of the survey and had response rates of

81% and 82% respectively. The scale items for the outcome measures appeared at the end of the survey and had the lowest response rates. Item completion rates for the college self-efficacy, CRAFFT, and criminal intent measures were 78%, 80%, and 80% respectively. The noted levels of subject responses and missing data were considered acceptable in the context of the exploratory study. Therefore, no imputation steps were taken to handle missing data.

Scales were constructed and means calculated to examine reliability; alphas were presented above and reported in Table 3.2. The dataset was then prepared to be readable in Mplus, which involved ensuring variable names had no more than eight characters, making the variable column widths consistent, and saving the file in the American Standard Code for Information Interchange (ASCII) format.

Structural equation modeling (SEM) in Mplus (Version 6; Muthén and Muthén 2007) was used as the primary analytic method. The primary goals of SEM are to 1) examine and validate the patterns of relationships among variables in an a-priori model, and 2) explain as much of the variance as possible with the model (Kline, 2005). Covariance is the core statistic examined in SEM (Kline, 2005). The most distinct characteristic of SEM is the ability to measure how well scale items explain the variance of the theoretical—latent—constructs they intend to measure. In addition, SEM allows for numerous relationships between variables to be estimated at the same time, thereby reducing measurement error (Kline, 2005).

Assumption of Normality. Like more traditional correlation, regression, and analysis of variance techniques, SEM is based on linear statistical models and on assumptions of

normal distribution. SEM resolves problems of multi-collinearity to a large extent because unobserved variables represent distinct latent constructs (Suhr, 2006). Kurtosis is of particular relevance since kurtosis impacts variance (rather than means) (Byrne, 2012). Tests of kurtosis conducted for each scale found no evidence of major threat of violation of normality (Kurtosis ranged from -.709–1.202). However, univariate normality often does not predict multivariate normality. Multivariate normality is a concern in any multivariate analysis, particularly when dealing with categorical variables that have different metrics from each other (Byrne, 2012).

There is little prior research to provide guidance for handling categorical variables in SEM. However, there is some consensus that the best approach for analysis with categorical variables is "continuous/categorical variable methodology" (CVM) in Mplus. Such an approach is often referred to as robust weighted least squares (Newsom, 2012). This method can handle any combination of continuous and categorical data. When indicating the use of categorical variables in Mplus, the program automatically applies CVM and uses the estimator weighted least squares mean variance (WLSMV) for estimating structural equation models. This approach has increasing empirical support with sample sizes greater than 200 (Newsom, 2012; Flora & Coran, 2004). All SEM analyses in the current study employed CVM in Mplus.

Assessing Model Fit. A model with "good fit" means that it fits or is compatible with data generated by the participants' survey responses. Researchers must make determinations about whether or not their models have adequate fit in order to support, reject, or respecify their models. A number of "goodness-of-fit" indices and rule of thumb

cut-off values have been developed in an effort to provide guidelines for making these assessments (Kenney, 2011; Marsh, Hau, & Wen, 2004). Mplus, the program used in this study, provides five goodness-of-fit indices when applying CVM. They are the X^2 (chi-square), root mean square error of approximation (RMSEA), comparative fit index (CFI) , Tucker-Lewis fit index (TLI), and the Weighted Root Mean Square Residual (WRMR).The chi-square compares an ideal-fitting model to the data. Statistical significance is therefore not desirable. It becomes increasingly unlikely, however, to not find significant variation in a sample when compared to the ideal as sample size increases. Therefore, the chi-square is sensitive to samples with more than approximately 200 cases, and is not a good indication of fit for the current study.

The RMSEA is calculated from the residual in the model, and approximates a non-central chi-square distribution as the null hypothesis rather than a perfect model. It also adjusts for complexity (Kline, 2005). The closer the RMSEA statistic is to zero, the better the fit. An RMSEA value less than or equal to .08 is generally considered a cut-off of adequate measure of fit. RMSEA is reported in almost all recent SEM research (Kenney, 2011) and there is some evidence of its ability to perform well with categorical data (Newsom, 2012). The RMSEA is relied on as a primary measure of fit in the current study.

The CFI and TLI were also viewed as important guides of goodness-of-fit in the study. They are both a type of fit statistic referred to as incremental or comparative fit indexes (Kline, 2005). These statistics are calculated by assessing how much the researcher's model improves in fit in comparison to the null model, in which there is no relationship between any of the variables. The TLI adjusts for model complexity. Values greater than .90 are generally considered reasonably good fit (Hu & Bentler, 1999).

The last index generated in the Mplus output for analyses involving categorical data is the WRMR. This statistic measures the weighted average distance between the sample and estimated population variances and covariances. A score of less than 1.00 is considered to be reasonable fit. The measure was developed with the intention of being better suited for high variance and when scales vary in metrics. However, as Linda Muthén, a co-developer of the Mplus program, notes in response to queries about why the index is elevated while other indices indicate adequate fit, "WRMR is an experimental fit statistic and I would not use it" (Mplus on-line discussion board, December 15, 2010). In order to demonstrate transparency and sensitivity to controversy surrounding the interpretation of fit indices, all of these fit statistics are reported for each of the models presented in Chapter 4.

Confirmatory Factor Analysis. SEM proceeded through two phases. The first step was to conduct a Confirmatory Factor Analysis (CFA) to test the measurement models for each of the latent constructs. This step determines the relationships between the observed variables (item responses) and underlying latent constructs they intend to measure. Goodness-of-fit was assessed for each variable and specification modifications were made as appropriate. Goodness-of-fit considerations should not rely entirely on fit indices (Hooper, Coughlan, & Mullen, 2008). In addition to the fit statistics, item correlations were reviewed to evaluate the independence of the items, and the R-Square (R^2) statistics were reviewed to evaluate if items explained substantial proportion of variance of the latent constructs.

Rigor was applied in considering specification modifications to improve fit when the initial measurement models did not demonstrate adequate fit. Some decisions were

made to correlate error terms, balancing substantive and statistical rationale (Kline, 2005). Items were deleted when they had extremely little variance. Furthermore, subscales and whole scales were excluded from the analysis if adequate fit could not be evidenced. The specific results from the CFA are presented in the next chapter.

Structural Models. The second phase in SEM involves testing the fit of the structural models that include the hypothesized relationships between variables specified in the model. The full hypothetical structural model is depicted in Figure 3.1. A separate model for the microaggression variable is shown in Figure 3.2. The circles in the figure symbolize latent variables, while the squares represent observed variables. The + and − symbols indicate the expected direction of the relationship between the variables on that pathway. The one-directional arrows suggest causal relationships while the two-directional arrows imply correlation. Error terms are noted with "e" and are assumed to exist for every variable. When error terms are correlated, that indicates that it is expected that the measurement error for the two items are related to each other. The relationships among the variables were expected to differ across racial/ethnic groups; thus, this variable is portrayed as modifying the relationships between the other variables.

Figure 3.1
Hypothetical Structural Model
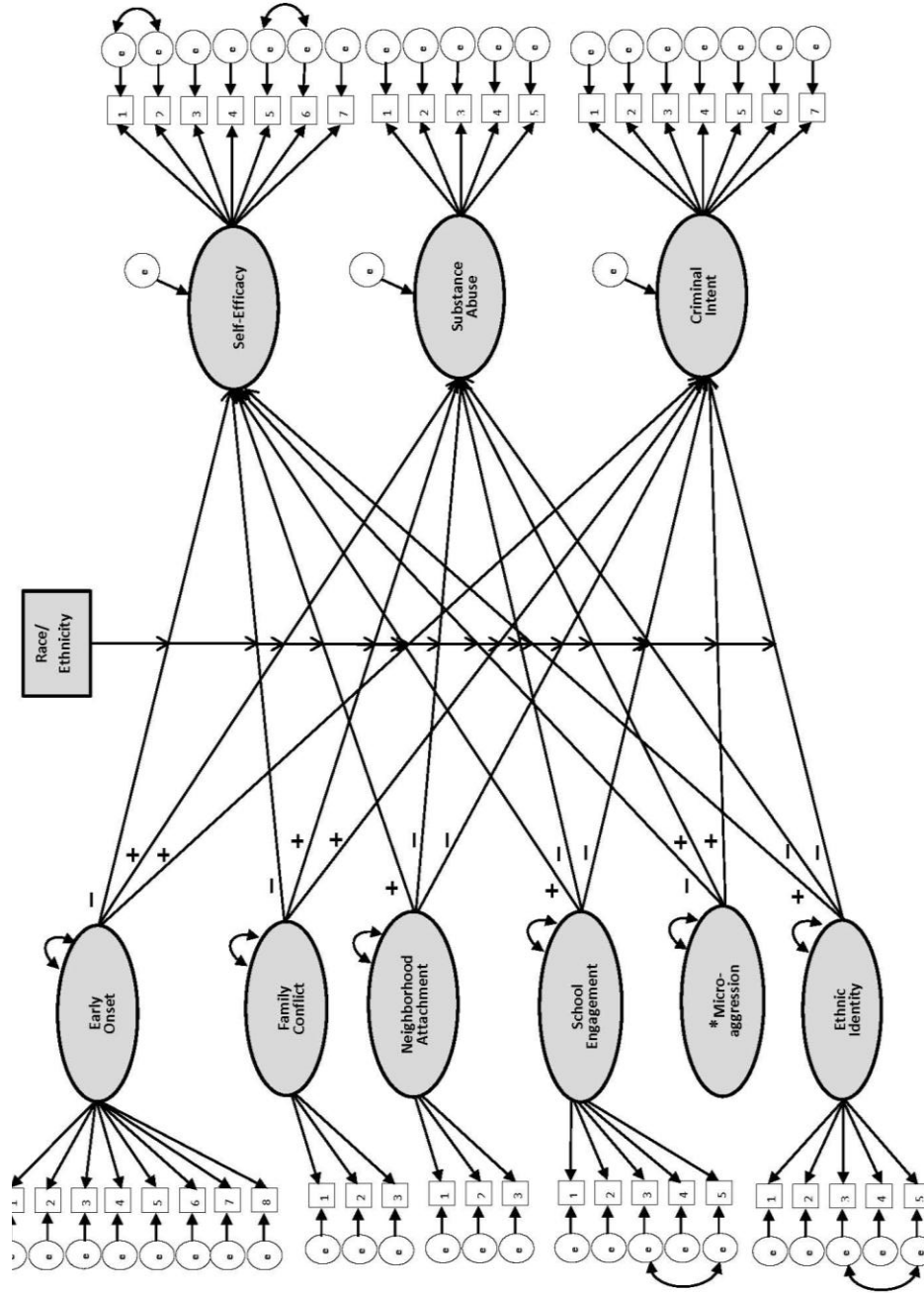
*See Figure 3.2 for complete model of the Microaggression scale.
(*Note: The "Early Onset" variable in the top left portion of the figure is short for "Early Onset of Negative Behavior".*)

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Figure 3.2

Elaboration of Microaggression Variable (See microagression variable in Figure 3.1)
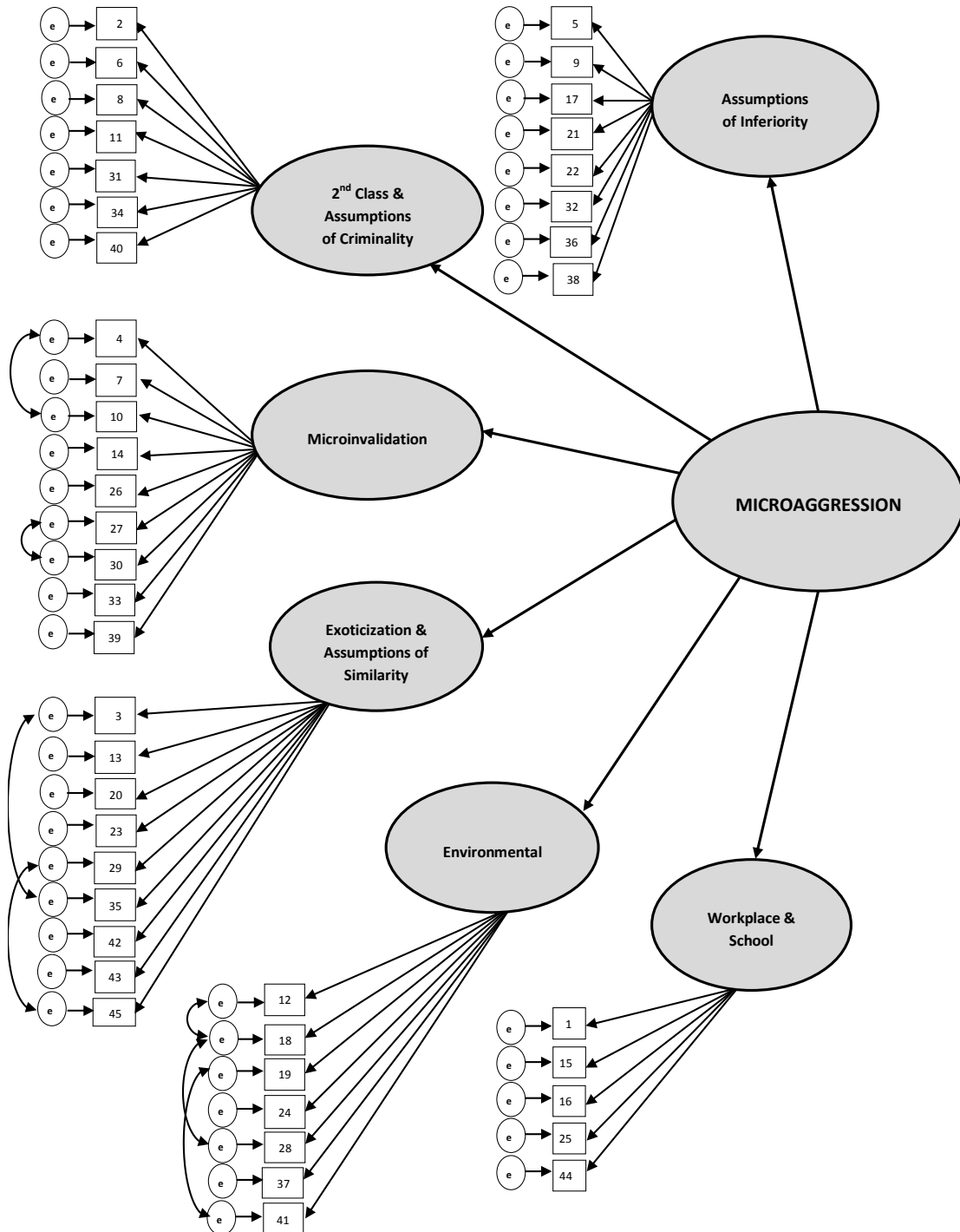
A series of structural models were systematically tested to directly address each of the research questions. The models are briefly described here. The models imply causality with arrows from the independent to dependent variables, but interpretation is appropriately guarded since the analyses tested associations. Question 1 asked, "What is the relationship between childhood risk and protective factors for problem behavior and course self-efficacy in young adult college students?" To address this question, a model was tested, which hypothesized that childhood risk and protective factors (early onset of negative behavior, family conflict, neighborhood attachment, and school commitment) would have significant associations with the young adult outcomes of self-efficacy, substance abuse, and criminal intent.

Question 2 asked, "What is the impact of perceived racial microaggression and ethnic identity on well-being of young adults after controlling for the influence of risk and protective factors?" To respond to this question, first a model was tested that included only racial microaggression and ethnic identity as independent variables, and college self-efficacy, substance abuse, and criminal intent as outcome variables. Arrows were drawn from each independent variable to each dependent variable to show the hypothesized relationships. A final model combined the first two to include the risk and protective factors, racial microaggression, and ethnic identity as the independent variables, and the three young adult outcome variables. Pathways were tested from each independent to each dependent variable. The results of the three models were then examined. Comparisons between the factor loadings and variance explained in the first model to those in the third allowed for the observation to be made if the relationships between the risk and protective variables differed when the racial microaggression and ethnic identity variables were added

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to the model. The results from the second model helped observe what the nature of the relationships between microggression and ethnic identity were independent of the risk and protective variables. The results of these analyses are presented in the next chapter.

A multiple group analysis was conducted to address the third research question, "Do relationships among childhood risk and protective factors, perceived racial microaggression, ethnic identity, and young adult problem behavior and course self-efficacy differ between racial/ethnic groups?" This analysis would compare model fit across the racial and ethnic groups in order to observe if the overall model fit, as well as the individual parameters differ between the groups. The statistical computation to do this involves separating out the data in each racial/ethnic group, essentially trying to test the model four times with the data from the number of participants in each of the four racial/ethnic groups (around 100). Unfortunately, the Mplus output indicated that the sample size was not large enough in each group to successfully test the model.

One-way ANOVAs were subsequently conducted in order to examine differences across racial and ethnic groups in the microaggression and ethnic identity scales response data, with the intention of informing directions for future research. A Levine's test of homogeneity of variance was statistically significant for each ANOVA, and thus the null for this test was rejected. The Brown-Forsythe test was therefore used for the analysis since it tends to provide robustness with non-normal data. Post-hoc comparisons were run with the Games-Howell, which is the recommended test when there are heterogeneous variances and the sample sizes differ between groups (Howell, 2007). The likelihood for family-wise error rate was noted as an important consideration in interpreting the results. No adjustments were made to make the alphas more stringent since the analyses are

exploratory. Alphas were tested at .05. Mean scores were compared between the racial and

ethnic groups for the microaggression scale and again for each type of microaggression

measured by each subscale of the REMS. A similar test was conducted with the ethnic

identity scale.

Chapter Summary

This chapter described the methodology used in the study. Steps used to construct

the surveys and procedures to randomly select and recruit subjects were noted. Sample

characteristics were discussed and measures used in the study were described. The analytic

approach used to examine the study's three major questions was then explicated in

preparation for understanding how the results were obtained. Study findings are presented

in the following chapter.

CHAPTER 4

RESULTS

This chapter presents the major findings for the three research questions posed in the study. The chapter begins with a discussion of the measurement models that resulted from confirmatory factor analyses. Results from structural equation modeling are then shown to examine the relationship between: 1) childhood risk and protective factors for problem behavior and well-being in young adulthood; and 2) risk and protection, perceived microaggression, and ethnic identity and well-being in young adulthood. In the final section of the chapter, findings from analysis of variance tests examining racial and ethnic group differences in perceived racial and ethnic microaggression and ethnic identity are presented and described.

Measurement Model

This section presents the outcomes of confirmatory factor analysis conducted on each variable. The overall structural model consisted of nine latent continuous variables, measured by categorical scale items. The factor loading for the first item of each latent variable was constrained at 1.0 to establish the metric. Specification modifications are clarified and goodness-of-fit assessments are presented. Factor loadings for each pathway of the item responses from the latent variables are also reported.

Independent/Exogenous Variables

　　Childhood risk and protective factors. Results of the measurement model for each of the Social Development Research Group (SDRG) risk and protective scales are presented in Table 4.1. Data from the **early onset of negative behavior scale were** condensed from 9 response choices to 3 categories (never, 15 and over, and under 15) due to very low variation in some of the item responses. This solution allowed for all of the items to remain in the model.

Table 4.1

Measurement Model of SDRG Risk and Protective Factor Scales

Scale	N	Factor Loadings***	X^2 (df)***	RMSEA	CFI	TLI	WRMR
Early Onset	484		73.838 (20)	0.074	0.971	0.959	1.184
1. Thc		1.000 (0.843)[2]					
2. Cigarettes		0.940 (0.793)					
3. Sip		0.877 (0.740)					
4. Reg. drink		0.806(0.679)					
5. Suspend		0.717 (0.604)					
6. Arrest		0.734 (0.619)					
7. Attack		0.471 (0.398)					
8. Gang		0.872(0.736)					
Family Conflict[1]	464						
1. Insult or yelled		1.000 (0.914)					
2. Serious argue		1.041 (0.951)					
3. Argue same		0.857 (0.783)					
Neighborhood Attachment[1]	441						
1. Liked neigh		1.000 (0.981)					
2. Would miss		0.890 (0.873)					
3. Wanted out		0.879 (0.863)					
Commitment to School	443		79.277 (4)	0.206	0.994	0.984	0.996
1. Important		1.000 (0.872)					
2. Interested		1.068 (0.931)					
3. Enjoy school		0.962 (0.786)					
4. Try to do best		0.979 (0.853)					
5. Look forward		0.922 (0.803)					
3 WITH 5		0.301 (0.817)					

*** All Factor loadings and X^2 statistics are statistically significant at $p \leq .001$
[1]Fit statistics cannot be produced for factors that have 3 items
[2]Standardized values are in parentheses

Family conflict and **neighborhood attachment** are both 3-item scales. In such cases, the number of parameters and observations are equal, or "just-identified" and therefore statistics for goodness-of-fit cannot be estimated (Kline, 2005). The reliability and validity of these instruments have been well-established in previous research (Catalano, Kosterman, Hawkins, Newcomb, & Abbott, 1996; Arthur, 2002). In addition, the factor loadings were high and statistically significant. The **school engagement** scale necessitated correlation of the error terms for the items (3) "Did you enjoy being in school most of the time?" and (5) "I looked forward to going to school." This decision was made based on a modification recommendation in the Mplus output that indicated if this parameter were to be freely estimated, the overall χ^2 would be reduced substantially. In addition, the presence of a strong correlation between the items (0.932) supported this decision, as did the similar substantive meanings of the two items.

Racial and Ethnic Microaggression. Each of the subscales of the Racial and Ethnic Microaggression Scale (REMS) (Nadal, 2011) was assessed using confirmatory factor analysis; respecifications were made when necessary to find adequate fit. "Second order" analysis was then conducted on the entire scale. Since each of the subscales had been validated, the latent construct of racial and ethnic microaggression was then able to be analyzed as a single construct made up of the subscales. The overall latent construct was assigned a metric by setting the first pathway at 1.0. This reduced the potential confounding effect of colinearity, and by having just one latent variable instead of six, the model was more parsimonious (Kenney, 2011). The second order analysis maintained all of the specifications made in the first order. Adequate fit for the overall scale was confirmed

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(RMSEA=0.049, TLI=0.941, CFI=0.937, WRMR=1.389). Results for the measurement

model for the racial and ethnic microaggression scale are shown in Table 4.2. Three of the

subscales, **assumptions of inferiority** (RMSEA=0.066, CFI = 0.994, TFI=0.992,

WRMR=0.543), **second-class citizen and assumptions of criminality** (RMSEA=0.000,

CFI=1.000, TLI=1.001, WRMR=0.290), and **workplace and school** (RMSEA=0.070,

CFI=0.991, TLI=0.982, WRMR=0.436) found adequate fit according to all of the fit

indices other than the X^2. Thus, they required no respecification.

Two pairs of error terms were correlated for the **microinvalidations** subscale when

the initial analysis did not yield an adequate fit. The items (30) "Someone told me that they

'don't see color'" and (27) "Someone told me that they do not see race" were correlated. In

addition, the error terms for items (10) "I was told that I should not complain about race"

and (4) "I was told that I complain about race too much" were also correlated. The

meanings of the items in each pair are very similar, suggesting the logic behind the

relatedness of measurement error. With the correlations of the residual errors in these pairs,

the scale found moderate fit. The estimated value for the residual covariance of the first

pair was 0.295. With a standard error of 0.043, the z-value of this parameter is 6.848

(estimate/standard error), and is statistically significant (*p < 001*). The second pair has a

residual covariance of 0.215, standard error of 0.042, and z-value of 5.103. Although the

RMSEA was slightly higher than the cut-off imposed in this study (0.086), the CFI (0.980),

TLI (0.971), and the WRMR (0.860) statistics all suggest adequate fit with these

respecifications. Further, the modification indices in the output from the statistical analyses

also recommended these specifications for improving model fit.

Three of the items in the **exoticization and assumptions of similarity** subscale were substantively redundant and correlations specified among the error terms resulted in adequate fit for the subscale (RMSEA=0.083, TLI=0.969, CFI=0.953, WRMR=0.830). These items were: (3) "Someone assumed that I spoke a language other than English", (29) "Someone asked me to teach them words in my 'native language'", and (45) "Someone assumed that I speak similar languages to other people in my race". The estimated value for the residual covariance for items (3) and (29) was 0.327, with a standard error of 0.045, and z-value of 7.233. The estimated value for the residual covariance between items (3) and (45) was 0.265. This parameter has a standard error of 0.045, and the z-value is 5.847. The error covariance between items (45) and (29) is 0.212 and has a standard error of 0.044 and a z-score of 4.816. All three pairs are statistically significant ($p < 001$).

Correlations were specified between item (18) "I observed that people of my race were the CEOs of major corporations" with two other items in the **environmental microaggression** subscale. These two items are (12) "I observed people of my race in prominent positions at my workplace or school" and (41) "I observed that someone of my race is a government official in my state". All three of these items pertain to observations of people from the participants' racial groups in positions of power. In addition, the modification indices recommended these correlations be made to improve fit. The estimated value for the residual covariance between items (18) and (12) is 0.181 and has a standard error of 0.034, with a z-value of 5.346. The error covariance between items (18) and (41) is 0.105. This parameter has a standard error of 0.028 and z-value of 3.785. Both of these specified parameters are statistically significant ($p < 001$). These modifications

resulted in adequate fit for the scale (RMSEA=0.072, TLI=0.986, CFI=0.976; RMSEA=0.604).

 Ethnic identity. Table 4.2 also shows the findings for the confirmatory factor analysis of the Multigroup Ethnic Identity Measure (MEIM) (Phinney et al., 1997). The version of the MEIM used in the current study has two subscales, one for the cognitive dimension of ethnic identity and one for the affective dimension. The cognitive scale necessitated that an error term correlation be specified between two items: (2) "I am active in organizations or social groups that include mostly members of my own ethnic group" and (4) "I think a lot about how my life will be affected by my ethnic group membership". The inclusion of this residual covariance resulted in adequate model fit (RMSEA=0.077, TLI=0.992, CFI=0.979, WRMR=0.490). This parameter has an estimated value of 0.172, with a standard error of 0.040, and z-value of 4.287.

Table 4.2

Measurement Model for REMS and MEIM

Scale	N	Factor Loadings***	X² (df)***	RMSEA	CFI	TLI	WRMR
Whole REMS[1] **(Second Order)**	390		1873.438 (934)	0.049	0.941	0.937	1.389
A. Assump Inferiority	406		56.682 (20)	0.066	0.994	0.992	0.543
5. In neighborhood		1.000 (0.660)[1]					
9. Not be intelligent		1.322 (0.872)					
17. Surprised success		1.290 (0.851)					
21. Not be educated		1.395 (0.920)					
22. "articulate"		1.148 (0.757)					
32. Lower education		1.461 (0.964)					
36. Lower paying job		1.322 (0.872)					
38. That I was poor		1.350 (0.890)					
B. 2nd-Class	403		12.558 (14)	0.000	1.000	1.001	0.290
2. Body language		1.000(0.878)					
5. Avoided walking		1.040(0.913)					
8. Sitting next to me		0.987(0.866)					
11. Substandard service		0.709(0.622)					
31. Clenched purse		1.027(0.901)					
34. Physically hurt		0.922(0.809)					
40. Avoided eye contact		0.963(0.845)					
C. Microinvalidations	403		101.035 (25)	0.086	0.980	0.971	0.860
4. Should not complain		1.000 (0.682)					
7. Colorblind		1.040 (0.710)					
10. Complain too much		0.959 (0.654)					
14. Same obstacles		0.841 (0.574)					
26. Experience racism		1.027 (0.701)					
27. "Don't see color"		1.130 (0.771)					
30. Do not see race		1.144 (0.781)					
33. No difference		1.033 (0.705)					
39. Should not think		1.163 (0.794)					
30 WITH 27		0.295 (0.742)					
10 WITH 4		0.215 (0.389)					
D. Exoticization	400		92.566 (24)	0.083	0.969	0.953	0.830
3. Spoke a language		1.000 (0.569)					
13. Wanted to date me		0.891 (0.507)					
20. Not believe US		1.133 (0.645)					
23. Are all the same		1.199 (0.682)					
29. "Native language"		1.199 (0.682)					
35. Ate foods every day		1.471 (0.837)					
42. Look alike		1.339 (0.762)					
43. Objectified physical		1.236 (0.703)					
45. Similar languages		1.196 (0.681)					
3 WITH 29		0.327 (0.544)					
3 WITH 45		0.265 (0.440)					
45 WITH 29		0.212 (0.396)					

Table 4.2 *continued*

Scale	N	Factor Loadings***	X^2 (df)***	RMSEA	CFI	TLI	WRMR
E. Environmental	402		37.758 (12)	0.072	0.986	0.976	0.604
12. Prominent positions		1.000 (0.405)					
18. CEOs corporations		1.470 (0.595)					
19. Portrayed on tv		1.802(0.730)					
24. In magazines		1.734 (0..702)					
28. Contributions		1.311 (0.531)					
37. Portrayed in movies		1.761 (0.713)					
41. Government official		1.379 (0.558)					
18 WITH 12		0.181 (0.246)					
18 WITH 41		0.105 (0.158)					
F. Work and School	403		15.185 (5)	0.070	0.991	0.982	0.436
1. Ignored		1.000 (0.782)					
15. Opinion overlooked		1.078 (0.843)					
16. Work inferior		0.929 (0.726)					
25. Unfriendly		1.040 (0.813)					
44. Treated differently		1.085 (0.848)					
MEIM	397		13.656 (4)	0.077	0.992	0.979	0.490
1. Find out more		1.000 (0.769)					
2. Active in orgs		0.520 (0.400)					
3. My life affected		0.876 (0.674)					
4. Talk to other people		1.063 (0.818)					
5. Participate practices		0.874 (0.672)					
2 WITH 4		0.172 (0.254)					

*** All Factor loadings and X^2 statistics are statistically significant at p ≤ .001
[1]Standardized values are in parentheses

The affective scale was not included in the study because of inadequate fit; none of the respecifications made substantive sense so the scale was not included in subsequent analyses.

Dependent/Endogenous Variables

Factor loadings and fit statistics for the study's outcome variables are described below and shown in Table 4.3.

College self-efficacy. Response choices for the College Self-Efficacy Instrument, course self-efficacy subscale (Solberg, 1993) were presented to participants on a scale from 0 to 10. Participants pointed the curser to a numeric value on the scale to identify their level of confidence for completing the tasks listed in the items. The decision was made to

condense the response data into three categories (0–3, 4–7, 8–10) in order to distribute the response variation more evenly. Two pairs of error correlations were also specified. This included items (1) "Research a term paper" and (2) "Write course papers", and items (5) "Keep up to date with schoolwork" and (6) "Manage time effectively". The items in these pairs have similar substantive meaning, and the recommendations provided in the modification indices supported these correlations as well. Correlations between the items were also high—0.909 for (1) and (2), and 0.788 for items (5) and (6)—further justifying the correlation of the error terms. The estimated value for the residual covariance for (1) and (2) was 0.807, with a standard error of 0.030, and z-value of 26.952. The residual covariance for items (5) and (6) was not as substantial, with a value estimated at 0.648, a standard error of 0.047, and z-value of 13.917. Both pairs were statistically significant (*p* < *.001*). Adequate fit was found with these specifications (RMSEA=0.074, TLI=0.995, CFI=0.991, WRMR=0.731).

Substance abuse. The CRAFFT (Knight, Sherritt, Shrier, Harris & Chang, 1999) instrument demonstrated adequate fit (RMSEA=0.081, TLI=0.984, CFI=0.967, WRMR=0.906). However, item (4) "Do your family or friends tell you that you should cut down of your drinking or drug use?" was deleted because there was little variation in responses to this question (8.4% responded yes to this question).

Criminal intent. No modifications were needed for the criminal intent scale. As shown in Table 4.3, adequate fit was demonstrated as illustrated by the following fit statistics: RMSEA=0.065, TLI=0.985, CFI=0.978, WRMR=0.620.

Table 4.3

Measurement Model for College Self-Efficacy, CRAFFT, Criminal Intent

Scale	N	Factor Loadings***	X^2 (df)***	RMSEA	CFI	TLI	WRMR
College Self-Efficacy	378		37.083 (12)	0.074	0.995	0.991	0.731
1. Research a term paper		1.000 (0.715)[1]					
2. Write course papers		1.037 (0.742)					
3. Do well on exams		1.231 (0.881)					
4. Take good class notes		0.999 (0.715)					
5. Keep up school work		0.870 (0.622)					
6. Manage time		0.894 (0.639)					
7. Understand text books		1.156 (0.827)					
1 WITH 2		0.378 (0.807)					
5 WITH 6		0.390 (0.648)					
CRAFFT	388		17.611 (5)	0.081	0.984	0.967	0.906
1. Ridden in car		1.000 (0.760)					
2. Feel better or fit in		1.188 (0.903)					
3. While alone		1.072 (0.815)					
4. Forget things		0.951 (0.722)					
5. Gotten into trouble		0.853 (0.648)					
Criminal Intent	388		37.300 (14)	0.065	0.985	0.978	0.620
1. In the future		1.000 (0.792)					
2. Keep money found		-0.327 (-0.259)					
3. Lying to police		0.594 (0.471)					
4. Out run police		0.972 (0.770)					
5. Open to cheating		0.980 (0.777)					
6. Convincing lie		0.995 (0.789)					
7. Rules won't stop me		0.842 (0.667)					

*** All Factor loadings and X^2 statistics are statistically significant at $p \leq .001$
[1] Standardized values are in parentheses

Summary

Adequate model fit was determined through confirmatory factor analysis with each of the variables used in the study. Scales were maintained as true as possible to the original instruments selected for the study. Modifications and respecifications to variable data were justified with both statistical and substantive information. The affective subscale of the MEIM was excluded from the analysis due to inadequate fit. The resulting overall measurement model served as a baseline for the structural equation models described in the next section.

Structural Models

A series of structural models that are components of the overall model were tested to examine the study's research questions. The appendix provides a detailed table of results for each model tested, including the factor loadings and fit statistics. Models C, G, and D from this table address the first two research questions guiding the study. Figures for each of these models were created and are presented below to illustrate the sample and standardized factor loadings for the statistically significant pathways. Non-significant pathways are symbolized with dashed lines in each of the figures. Fit statistics are also provided.

Relationship Between Childhood Risk and Protection
and Well-Being in Young Adulthood

Research Question 1 asks, "What is the relationship between childhood risk and protective factors for problem behavior and course self-efficacy in young adult college students?" Model C, the results of which are shown in Figure 4.1, addressed this question. The model includes four different risk and protective factors: 1) early onset of negative behaviors, 2) high conflict, 3) commitment to school, and 4) neighborhood attachment. It also includes the three outcome variables: 1) college efficacy, 2) substance abuse, and 3) criminal intent. Hypothesized pathways were drawn from the risk and protective factors to each of the outcome variables. The factor loading for the first item of each latent variable was constrained at 1.0 to establish the metric. Figure 4.1 presents the findings for this model.

As expected, statistically significant positive associations were found between the childhood risk factor early onset of problem behavior and substance abuse (β=0.665, $p <$ .001) and criminal intent (β=0.071, $p <$ .01) in young adulthood. In addition, childhood school engagement was significantly related to both college self-efficacy (β=0.159, $p <$ .01, and criminal intent (β=-0.072, $p <$ .01). Consistent with the study's hypothesis, as childhood school engagement increased, so did the participants' sense of competence in managing coursework. In addition, as hypothesized, childhood school engagement had a negative relationship with criminal intent. Family conflict and neighborhood attachment variables did not reveal statistically significant associations with any of the three outcome variables.

Statistically significant correlations were found among all of the risk and protective variables, findings that are congruent with prior evidence (Catalano, Kosterman, Hawkins, Newcomb, and Abbott, 1996). The directionalities, or nature, of these correlations were also consistent with findings reported by Catalano and colleagues (1996). For example, early onset of negative behavior and family conflict were significantly correlated (r=0.237, $p <$ .001), as were the protective factors assessing neighborhood attachment and school engagement (r=0.118, $p <$ .001).In addition, risk factors revealed negative correlations with the protective factors shown in Figure 4.1. For example, early onset of negative behavior was significantly correlated with neighborhood attachment 0.107 ($p <$ .01) and with school engagement -0.241 ($p <$ .001). Family conflict and neighborhood attachment were correlated at -0.255 ($p <$ .001) and family conflict and school engagement had a correlation of -0.154 ($p <$ .001).

Figure 4.1

Model C: Risk and Protective Factors and Outcome Variables
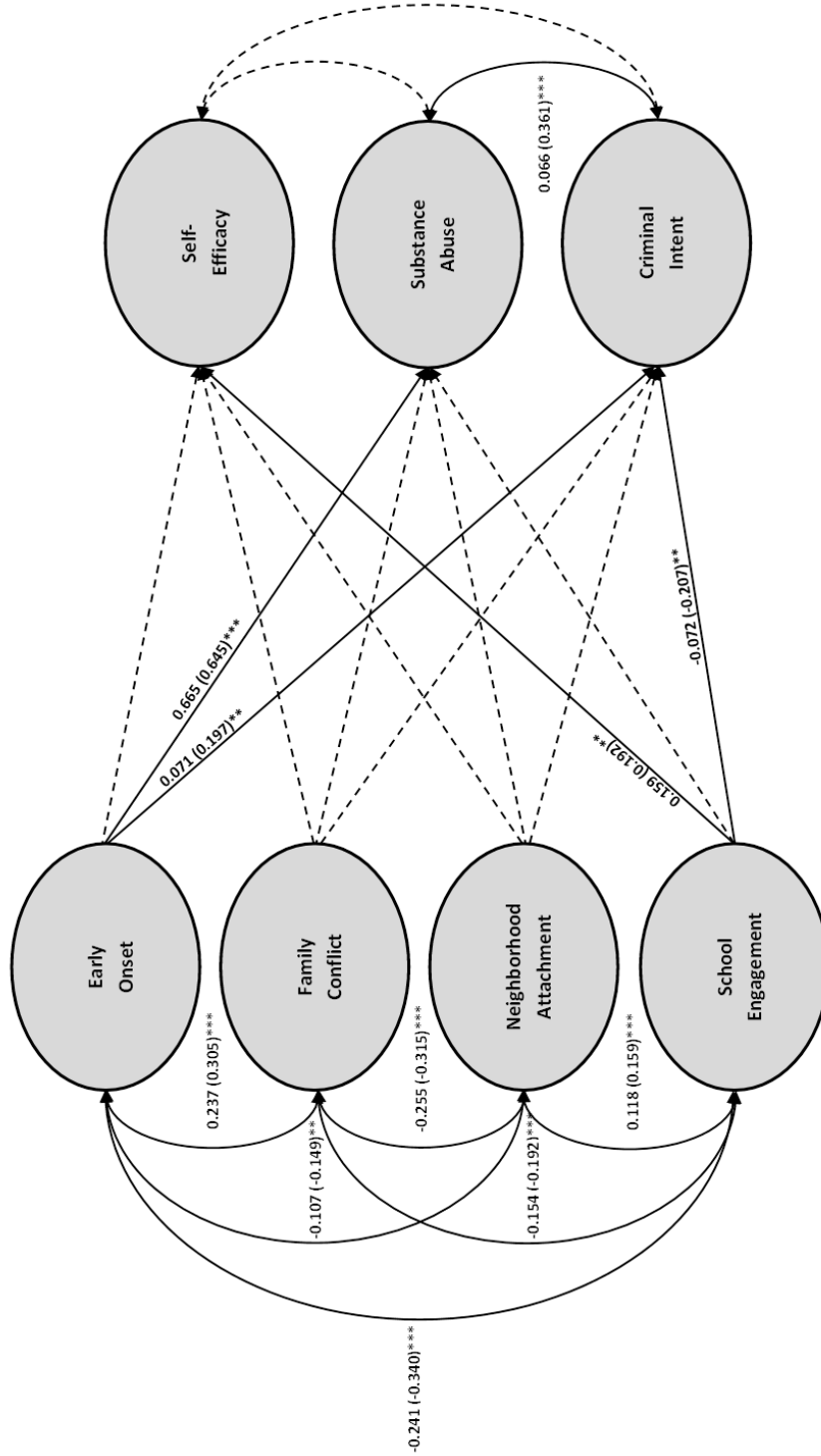
Fit Indices

X² (df)	RMSEA	CFI	TLI	WRMR
1088.899 (642)***	0.038	0.977	0.975	1.183

* = p ≤ .05   ** = p ≤ .01   *** = p ≤ .001
Non-significant paths are indicated by dashed lines.

Substance abuse and criminal intent had a significant positive correlation ($r=0.066$, $p < .001$), but neither variable was significant related to self-efficacy.

The fit indices suggest adequate model fit (RMSEA=0.038, CFI=0.977, TLI=0.975). The R-squares for the outcome variables indicate that the model accounted for a small, yet statistically significant portion of the variance in self-efficacy (5.2%) and criminal intent (11.6%). A considerably greater portion of the variability (45.8%) in substance abuse was explained by the model.

Impact of Perceived Microaggression and Ethnic Identity
on Risk, Protection, and Well-Being

Research Question 2 asks, "What is the impact of perceived racial microaggression and ethnic identity on well-being of young adults after controlling for the influence of risk and protective factors?" In other words, if variables assessing racial and ethnic microaggression and ethnic identity are added to the model, do any of the relationships between the risk and protective factors and the outcome variables change? And, do the microaggression and ethnic identity variables explain part of the variance in outcome variables that childhood risk and protective factors do not?

To answer this question, it was first important to test a model that allowed for examining the relationships between racial and ethnic microaggression and ethnic identity, independent of the risk and protective factors. In this step, the correlation between racial and ethnic microaggression and ethnic identity was also tested. In this model (Model G), hypothetical pathways were drawn from the racial and ethnic microaggression and ethnic identity variables to the outcome variables of self-efficacy, substance abuse, and criminal

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intent. The factor loading for the first item of each latent variable was constrained at 1.0 to

establish the metric. Figure 4.2 presents the results for Model G.

Figure 4.2

Model G: Racial and Ethnic Microaggression and Ethnic Identity and Outcome Variables
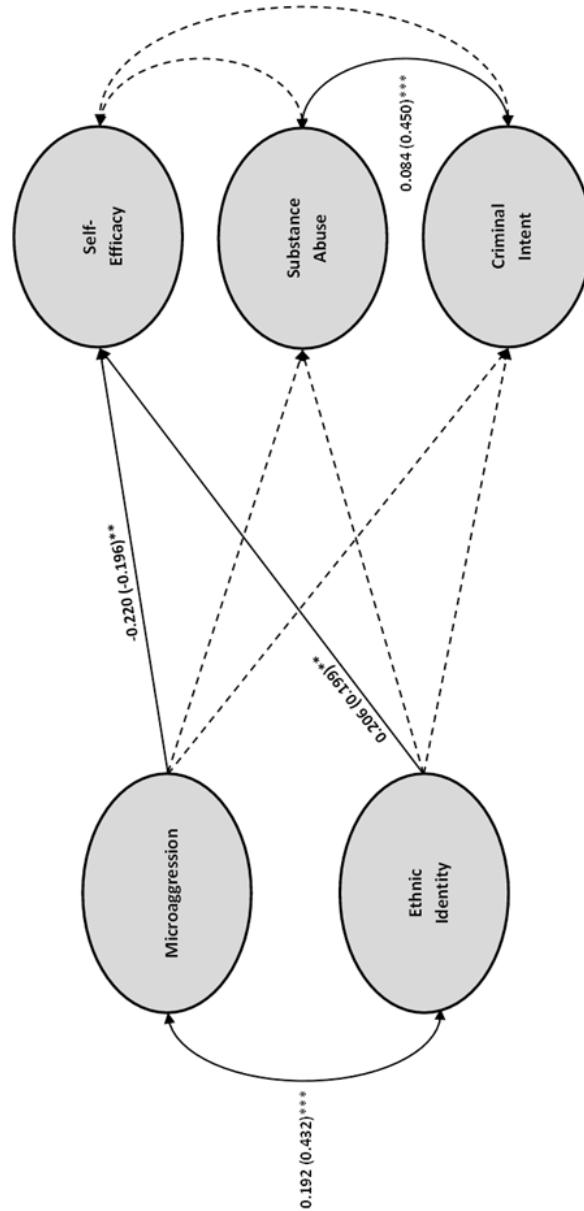
As hypothesized, racial and ethnic microaggression had a statistically significant negative association with college self-efficacy (β=-.0220, $p < .01$). Conversely, and as hypothesized, ethnic identity was positively related to college self-efficacy (β=0.206, $p < .01$). Neither of the exogenous variables was significantly related to substance abuse or criminal intent. Racial and ethnic microaggression and ethnic identity were positively and significantly correlated (r=0.192, $p < .001$). In addition, substance abuse and criminal intent had a statistically significant positive correlation (r=0.084, $p < .001$). Self-efficacy, on the other hand, was not significantly related to either of the other outcome variables.

The fit indices suggested adequate model fit (RMSEA=0.027, CFI=0.963, TLI=0.961). The R-square values for the outcome variables were not statistically significant. The R-square for substance abuse was .9%; 4.4% of the variance was explained for self-efficacy and 1.7% for criminal intent.

The next step in answering Research Question 2 required adding the racial and ethnic microaggression and the ethnic identity variables to the model that included risk and protective factors. Once added, the impact on the factor loadings between the variables and R-square values for the outcome variables were again observed. This model, shown in Figure 4.3, represents the complete model for the study.

Figure 4.3 presents the results from testing this larger model (Model D) of nine variables. Model D includes the four risk and protective factors: 1) early onset of negative behaviors, 2) high conflict, 3) commitment to school, and 4) neighborhood attachment. It also includes racial and ethnic microaggression, ethnic identity, and the three outcome variables: 1) college efficacy, 2) substance abuse, and 3) criminal intent. Hypothesized pathways are drawn from each of the risk and protective factors and microaggression and

ethnic identity to each of the outcome variables. As with all of the models, the factor

loading for the first item of each latent variable was constrained at 1.0 to establish the

metric.

Examination of the factor loadings reveals that none of the earlier reported

relationships between variables changed when the models were combined. Congruent with

the first model discussed (Model C), statistically significant positive associations were

found between the childhood risk factor of early onset of problem behavior and substance

abuse (β=0.724, $p < .001$) and criminal intent (β=0.083, $p < .01$) in young adulthood. In

addition, childhood school engagement was positively and significantly related to college

self-efficacy ($\beta = 0.139$, p < .01), and negatively and significantly related to criminal intent

(β=-0.059, $p < .01$). Furthermore, the family conflict and neighborhood attachment

variables were not significantly related to any of the outcome variables. The relationship

between microaggression, ethnic identity, and the outcome variables were not significantly

different when compared to findings reported in Model G, in which no childhood risk and

protective variables were in the model, or to Model D, in which they were in the model in

addition to the microaggression and ethnic identity variables.

As shown in Figure 4.3, there was a statistically significant negative association

between racial and ethnic microaggression and college self-efficacy (β=-.0218, $p < .01$). In

addition, ethnic identity was positively related to self-efficacy (β=0.149, $p < .05$). Worth

noting here is that there was an observable reduction in the factor loading from ethnic

identity to self-efficacy when compared to the second model in which there were no

childhood risk and protective factors included in the model (from 0.206, p < .01 to 0.149,

p < .05). Consistent with the second model, neither microaggression nor ethnic identity was significantly related to substance abuse or criminal intent in the whole model.

Figure 4.3

Model D: Risk and Protective Factors, Racial and Ethnic Microaggression,
and Outcome Variables
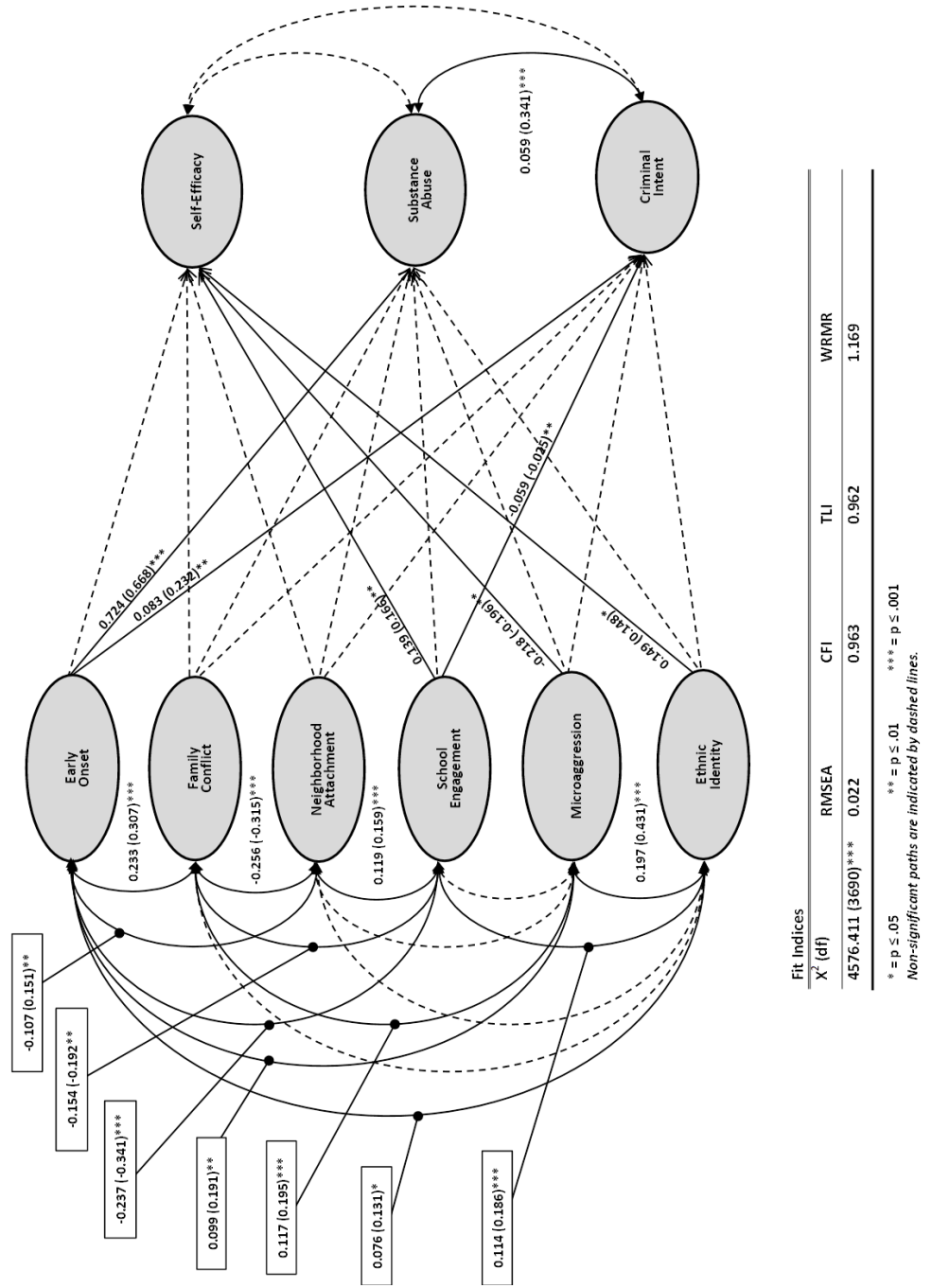
Similar to findings reported in Model C, there were statistically significant correlations among the childhood risk and protective factors in Model D (shown in Figure 4.3). Likewise, microaggression and ethnic identity were significantly and positively correlated, as were substance abuse and criminal intent. Additional statistically significant correlations occurred between several of the childhood risk and protective variables and measures of racial and ethnic microaggression and ethnic identity. For example, early onset had positive statistically significant associations with both racial and ethnic microaggression ($r=0.099$, $p < .01$) and ethnic identity ($r=0.076$, $p < .05$). Family conflict was positively related to microaggression ($r=0.099$, $p < .001$); school engagement had a positive significant relationship with ethnic identity ($r=0.114$, $p < .001$).

The fit indices suggested adequate fit for the model with the data (RMSEA=0.022, CFI=0.963, TLI=0.962). Importantly, the R-squares for the outcome variables demonstrated that racial and ethnic microaggression and ethnic identity added to the variance accounted for by the initial model that only included the childhood risk and protective factors as the exogenous variables. In the larger model, the R-square values for self-efficacy was 8.4%, 48.3% for substance abuse, and 13.2% for criminal intent. Table 4.4 compares R-square values found for the three outcome variables in each of the three models.

Table 4.4

Comparisons of the Coefficient of Determination (R^2) for the Outcome Variables

	Risk and Protective Factors with Outcome Variables	Racial and Ethnic Microaggression with Outcome Variables	Risk and Protective Factors, and Racial and Ethnic Microaggression with Outcome Variables
	(Model C)	(Model G)	(Model D)
Self-Efficacy	0.052*	0.044	0.084*
Substance Abuse	0.458***	0.009	0.483***
Criminal Intent	0.116***	0.017	0.132***

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

Differences by Racial and Ethnic Group Membership

Research Question 3 asks, "Do relationships among childhood risk and protective factors, perceived racial microaggression, ethnic identity, and young adult problem behavior and course self-efficacy differ between racial/ethnic groups?" To address this question, a multi-group analysis was conducted. Unfortunately, this complex model did not run properly due to an insufficient sample size and because there were not enough subjects in each racial/ethnic group to test the whole model. The Mplus output reported a number of warnings revealing that the sample correlations were 1.000 or -.999 due to one or more zero cells in the bivariate table. The model estimation terminated normally but included further warnings that the covariance matrices were not positive definite.

Analysis of variance tests were, therefore, used to examine differences in mean scores for the microaggression and ethnic identity measures by race and ethnicity. Each of the subscales of the different types of discrimination was also tested for mean differences across the racial groups. To accommodate violation of the homogeneity of variance

assumption, the Brown- Forsythe test was used to analyze main effects; post-hoc

comparisons were examined using the Games-Howell test. Table 4.5 reports the results

from the Brown- Forsythe tests of ANOVA that compared the mean scores across the

groups, and Table 4.6 presents the mean scores and standard deviations for the REMS and

MEIM by racial group.

Table 4.5
*Main Effects of Brown-Forsythe Tests of ANOVA for the Racial and Ethnic
Microaggression Scale (REMS) and Subscales*

	F^{a*}	Between df	Within df	Sig.
Whole REMS	36.040	3	289.821	.000
Assumptions of Inferiority	22.527	3	237.726	.000
Second Class	19.417	3	184.174	.000
Microinvalidations	4.716	3	278.395	.003
Exoticization/Similarity	28.736	3	316.170	.000
Environmental	57.846	3	362.926	.000
Work and School	6.568	3	256.476	.000
MEIM	5.525	3	348.037	.001

*a = Asymptotically F distributed

Table 4.6

Mean Scores and Standard Deviations for the Racial and Ethnic Microaggression Scale (REMS) and Multigroup Ethnic Identity Measure (MEIM) by Racial/Ethnic Group

		N	Mean	SD
REMS	Asian	89	100.33	27.07
	Latino/Hispanic	99	102.94	28.20
	Black	77	107.27	35.00
	White	125	71.45	21.29
Assumption of Inferiority	Asian	94	10.60	6.32
	Latino/Hispanic	103	14.57	8.46
	Black	80	16.73	10.24
	White	129	8.82	3.01
Second Class Citizen/Criminality	Asian	93	8.80	4.80
	Latino/Hispanic	103	9.41	4.47
	Black	79	13.45	8.74
	White	128	7.22	2.93
Microinvalidations	Asian	93	12.28	6.17
	Latino/Hispanic	103	12.83	5.75
	Black	79	15.37	8.40
	White	128	12.08	5.06
Exoticization and assumptions of	Asian	92	22.13	10.05
	Latino/Hispanic	102	19.32	8.88
	Black	79	15.80	7.27
	White	127	12.40	5.65
Environmental	Asian	93	30.79	6.51
	Latino/Hispanic	101	29.93	6.24
	Black	80	28.01	7.05
	White	128	18.83	10.92
Work and School	Asian	93	6.29	3.87
	Latino/Hispanic	102	6.15	2.94
	Black	80	7.51	4.93
	White	128	5.16	2.51
MEIM	Asian	92	10.75	2.87
	Latino/Hispanic	100	11.18	2.82
	Black	80	11.49	2.95
	White	125	10.19	2.34

Significant main effects were found across the four racial/ethnic groups for all of the ANOVA tests. The overall F-test for the REMS scale was significant (3, 290) = 36.04, p < .001. Post-hoc comparisons revealed that all nonwhite groups experienced higher levels of perceived racial and ethnic microaggression than their white peers at $p < .001$ for all comparisons (Asian M=100.33, SD=27.07); Latino/Hispanic M=102.94, SD=28.20); black M=107.27, SD=35.00; white M=71.45, SD=21.29). Comparisons between the Asian, Latino/Hispanic, and black groups did not reveal any statistically significant differences between groups.

Statistically significant effects were found across the racial/ethnic groups for the assumption of inferiority subscale, F (3, 237.73) = 22.53, $p < .001$. Post hoc comparisons found that Latino/Hispanic (M=14.57, SD=8.46) and black participants (M=16.73, SD=10.24) reported higher rates of experiencing this type of microaggression than whites (M=8.82, SD=3.01) and Asians (M=10.60, SD=6.32). All of the p values for these comparisons were ≤ .001.

The main effects of the second class citizen and assumptions of criminality scale were F (3, 184.17) = 19.417, $p < .001$. Post hoc comparisons found that scores for this scale for black participants (M=13.45, SD=8.74) are significantly higher than all other groups (Asian M=8.80, SD=4.80, $p < .001$; Latino/Hispanic M=9.41, SD=4.47, $p = .002$; white M=7.22, SD=2.93, $p < .001$).

The microinvalidations scale has significant mean score differences across the racial/ethnic groups, F (3, 278.40) = 4.72, $p < .01$. Post hoc comparisons found that black participants reported higher rates of experiences of microivalidations (M=15.37, SD=8.40) than Asian (M=12.28 , SD=6.17, $p = .037$), and white (M=12.08, SD=5.06, $p = .011$)

participants. No significant differences were found in comparison with Latino/Hispanic participants (*M*=12.83, *SD*=5.75).

Main effects for the ANOVA across racial groups for the exoticization and assumptions of similarity scale also found significant differences, $F(3, 316.17) = 28.74$, $p < .001$. Asian (*M*=22.13, *SD*=10.05), participants experience this type of microaggression more frequently than white (*M*=12.40, *SD* = 5.65, $p < .001$) and black participants (*M*=15.80, *SD*=7.27, p < .001). The multiple comparisons for this subscale found the same pattern for the Latino/Hispanic (*M*=19.32, *SD*=8.88) participants; scoring significantly higher scores than the white group ($p < .001$) and the black group ($p = .020$). In addition, black participants had significantly higher mean scores on this scale than white participants ($p = .003$).

The main effects for the ANOVA test on the environmental scale found statistically significant differences across racial/ethnic groups, $F(3, 362.93) = 57.85$, $p < .001$. This type of microaggression was experienced less frequently by white participants (*M*=18.83, *SD*=10.92) than black (*M*=28.01, *SD*=7.05, $p < .001$) and Latino/Hispanic (*M*=29.93, *SD*=6.24, $p < .001$). No statistically significant differences were found between Asian (*M*=30.79, *SD*=6.51) participants and any other group for this scale.

The final REMS subscale, work and school, also demonstrated significant main effects across racial/ethnic groups, $F(3, 256.48) = 6.57$, $p < .001$. Latino/Hispanic (*M*=6.1451, *SD*=2.93820) reported significantly more frequent experiences of workplace and school microaggression than white participants (*M*=5.16, *SD*=2.51) at a p value of .039. Black respondents' (*M*=7.5075, *SD*=4.93) mean scores were also significantly higher

than their white peers ($p = .001$). No statistically significant differences were found between Asian ($M=6.29$, $SD=3.87$) participants and any other group for this scale either.

Main effects of the ANOVA test conducted across racial/ethnic groups for the cognitive ethnic identity scale were also statistically significant, $F(3, 348) = 5.52$, $p = .001$. White participants) mean cognitive ethnic identity scores ($M=10.19$, $SD=2.34$) were significantly lower than both Latino/Hispanic ($M=11.18$, $SD=2.82$, $p = .003$) and black respondents ($M=11.49$, $SD=2.95$, $p = .003$). There were no statistically significant differences between Asian ($M=10.75$, $SD=2.87$) participants and any other group for the ethnic identity scale.

Chapter Summary

Findings from an examination of the relationships between early childhood risk and protective factors, racial and ethnic microaggression, ethnic identity, and outcomes of well-being in young adulthood, including college self-efficacy, substance abuse, and criminal intent, were presented in this chapter. The process of the confirmatory factor analysis and resulting measurement model were presented, including descriptions of how model fit was assessed and specifications were made. The hypothetical relationships in the overall structural model were described and explanations were provided about how models were used to address the research questions in a systematic approach. The findings regarding statistically significant findings were presented. Tests of ANOVA examining the mean differences on the REMS and MEIM surveys by racial/ethnic group membership were conducted to examine the study's final research question. Study findings, limitations, and implications for practice, policy, and research are discussed in the following chapter.

CHAPTER 5

DISCUSSION

This chapter begins with a brief overview of the study and a description of the methodology used to address the research questions. Results reported in Chapter 4 are discussed and interpreted in the context of the study hypotheses and the literature reviewed in the first two chapters. Discussion focuses on how findings from the investigation contribute to existing knowledge about the relationship between risk and protection, microagression, ethnic identity, and well-being among young adults. Implications for intervention and policy are noted. The chapter concludes with an acknowledgment of the methodological limitations of the study and implications for future research.

Summary of Study Problem and Methodology

Young adulthood has been recognized as a developmental stage that is characterized by the transition from adolescence to the roles and responsibilities of adulthood. Recent analysis of national population datasets have found that the pathways young people take during the transition to adulthood are varied, and for many, stressful and difficult (Osgood, Foster, Flanagan, & Ruth, 2005; Settersten, Furstenberg, & Rumbaut, 2005). As illustrated by prevalence data reported in Chapter 2, substance abuse, criminal involvement, academic failure, unemployment, and mental health problems are all too common in the lives of many young adults. Importantly, people of color are over-represented in many of these problems. Studies indicate that those who fare worst tend to

come from disadvantaged childhoods and are exposed to multiple risk factors such as poverty, abuse and neglect, disorganized neighborhoods, and inadequate education (Wald, 2005). These young people often encounter multiple obstacles to well-being and success in young adulthood. Many do not have much family support and lose services afforded them when they were adolescents. For those who enter young adulthood without high school education, experience substance abuse or mental health problems, and/or are involved in the criminal justice or child welfare systems, the obstacles to success are often daunting. Not only are there limited public supports available, but these young people often must seek out services and find the financial resources to access them (Wald, 2005).

In contrast, young adults from families with ample financial and social resources tend to have substantial advantage. Parental education, two-parent households, and attending private catholic schools are all factors related to wealth that are also strong predictors of successful transition to adulthood (Sandefur, Eggerling-Boeck & Park, 2005). Young people with resources such as these are more likely to attend private four-year colleges where extensive supports are available such as room and board, and access to mental and physical health services if needed; all within a culture devoted to ensuring educational and career success (Wald, 2005).

In between these two extremes are young adults with limited wealth and whose childhood circumstances likely exposed them to more of a balance of risk and protective influences. Young adults in this middle range may be likely to seek public college education in efforts to establish success and well-being. These students are likely to be juggling the demands of college coursework with employment responsibilities, while possibly raising children at the same time. Students attending public colleges are more

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likely to be of color, less likely to be prepared for the academic rigor of college, and less likely to complete college than students in four-year private institutions (Bragg, Kim, & Rubin, 2005; National Center for Health Statistics, 2009; U.S. Census Bureau, 2011).

Differential exposure to economic, educational, and social resources suggests that a comprehensive system of coordinated services that provides guidance and support for all young adults is needed. In this context, it is imperative that social workers better understand the underlying causes of negative outcomes or success that occur in young adulthood. Such understanding is needed to inform practice, policy, and advocacy efforts that aim to promote equal opportunities for all young adults. Disentangling the causal factors that contribute to problem behavior or to a life of social and emotional well-being during young adulthood, however, is complicated. A large body of literature from longitudinal studies has contributed greatly to knowledge of risk and protective factors for the onset of problem behavior or to well-being among children and adolescents. This literature was reviewed in-depth in Chapter 2. Many existing studies have examined the effect of child and adolescent risk and protective factors on problem behavior and well-being during young adulthood (Farrington & West, 2006; Thornberry, Henry, Ireland, & Smith, 2010). While these investigations demonstrate the continued importance early exposure to risk and protective influences have throughout the life course, they have had limited impact on understanding or ameliorating the challenges faced by young adults.

One concerning gap in the literature on young adulthood is the lack of research aimed at understanding the effect of racial discrimination and ethnic identity on problem behavior and well-being among young adults. Empirical evidence from public health and other fields suggests that racial discrimination is an important risk factor for physical and

emotional outcomes experienced by people of color, including young adult (Paradies, 2006; Williams, Neighbors, & Jackson, 2008). In addition, studies investigating the impacts of perceived discrimination on behavioral and academic outcomes is growing (Gibbons, Girrard, Cleveland, Wills, & Brody, 2004; Wong, Eccles, & Sameroff, 2003). Meanwhile, findings suggest that ethnic identity promotes emotional well-being in young adults, and possibly buffers the impacts of perceived discrimination on well-being among people of color (Phinney, 1992; Umana-Taylor & Updegraff, 2007).

The purpose of this study was to extend current understanding of the causes and correlates of social and emotional well-being among young adults, particularly as it relates to people of color. To that end, this study examined the relationships between child and adolescent risk and protective factors for problem behavior, perceived racial discrimination, ethnic identity, and young adult outcomes of self-efficacy, substance abuse, and criminal intention. Data were collected via a web-based survey from a random sample of young adult college students attending a public urban college (*N*=486; *Mean Age*=24). Oversampling of racial groups ensured adequate representation of subjects across nonwhite groups (Asian=117, Latino/Hispanic=115, black=98, white=145). Measures used in the study included four risk and protective scales developed by the Social Research and Development Group (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002); early onset of negative behavior, commitment to school, family conflict, and neighborhood attachment. Perceived discrimination was measured with the Racial and Ethnic Microaggression Scale (Nadal, 2010), and the cognitive dimension of ethnic identity was measured with the Multigroup Ethnic Identity Measure (Phinney, 1992). Three outcome variables were included in the study: the course subscale of the College Self-Efficacy Instrument (Solberg

et al., 1993) was used to measure college students' sense of competence in their capacity to manage course-related tasks; the CRAFFT (Knight et al., 1999) measured substance abuse; and the Criminal Intent scale (Backstrom & Bjorklund, 2008) measured an attitude of criminality.

Structural equation modeling was used to conduct confirmatory factor analysis on the study measures and to examine hypothesized relationships among variables in three models addressing the research questions. A series of tests of ANOVA were also conducted as an exploratory step to inform future research inquiry.

The next section reviews the hypotheses set forth in the study and discusses conclusions that are suggested by the study results. Consideration is given to how the current study contributes to the research literature.

Review and Discussion of Key Findings

Three research questions were posed in this study. In this section, each question and the corresponding hypothesis are recalled. A summary of the key results are reviewed and discussed for their relevance in informing the literature regarding young adult well-being and racial disparities found across outcomes in this age group. Additional findings from the analyses are also considered.

Research Question 1

The first research question assessed the relationship between childhood risk and protective factors for problem behavior and self-efficacy in young adult college students. It was hypothesized that childhood risk and protective factors would significantly affect the

study outcomes of behavioral and academic well-being during young adulthood. Specifically, risk factors were expected to have positive associations with young adult substance abuse and criminal intent, and to be negatively related to college self-efficacy. Childhood protective factors were expected to have negative associations with substance abuse and criminal intent among young adults and to be positively related to college self-efficacy.

Results. Statistically significant positive associations were found between the childhood risk factor of early onset of problem behavior and substance abuse and criminal intent. In addition, childhood commitment to school was positively and significantly related to college self-efficacy; commitment to school was negatively related to criminal intent. Family conflict and neighborhood attachment were not significantly related to any of the outcome variables.

Discussion. Several of these findings support the evidence for continued salience of childhood risk and protective factors in young adulthood. For instance, the statistically significant associations found between early onset and substance abuse and criminal intent in the young adult sample is consistent with findings reported in longitudinal studies assessing the trajectories of adult problem behavior (Farrington, 2006). The importance of early onset of negative behavior as a risk factor for substance abuse and criminality is well established (Farrington, 2006). A young adult who has a severe substance abuse problem, or involvement in the criminal justice system, is likely to have started using drugs or alcohol and/or engaging in negative behaviors at a very young age (Guy, Smith, & Bentler, 1993; Farrington, 1990; Farrington 1992; Farrington & West, 1995; Flory, Lynam, Milich, Leukfield, & Clayton, 1994; Jessor, Donovan, & Costa, 1991; Moffit, 1997; Stattin &

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Magnussen, 1991; Newcomb & Bentler, 1987; Werner, 1993). In addition, the findings that childhood school engagement was positively associated with self-efficacy in young adult college students and negatively associated with criminal intent fits with existing evidence suggesting that academic support and success is protective against risk factors and promotes positive trajectories (Frey, Walker, & Perry, 2011; Laser & Nicotera, 2011).

At the same time, findings from the current study may support one of the arguments set forth in this paper that common risk and protective factors have limited predictive capacity for young adult outcomes. Specifically, the childhood neighborhood and family factors did not impact the outcomes of young adults in this sample although both factors are known to be influential for childhood and adolescent behavior problems (Herrenkohl et al., 2000; Fagan, Lee, Van Horn, Hawkins, & Arthur, 2007; Jenson et al., 2011; Keyes, 2004). Furthermore, the current study did not reveal significant relationships between early onset of problem behavior and the outcome of self-efficacy, nor between the outcome measures of college self-efficacy and substance abuse or criminal intent in young adulthood. These findings suggest that young adults who evidence risk of early onset, and those young adults who endorsed indicators of substance abuse or criminal intentions, believe as much as other young adults in their capacity to manage their college course work.

Clearly, much remains to be understood about the pathways to well-being for individuals who experienced risk factors of early onset in childhood, as well as answering the question of why a higher prevalence of substance use and crime exists during young adulthood than during adolescence and later adulthood. Thus, continued efforts should be placed on identifying the most salient risk and protective factors for behaviors that occur

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during young adulthood. It makes sense that in the new developmental stage, the goals and priorities shift as roles and social relationships during young adulthood change. Perhaps family and neighborhood risk and protective factors become less important in the lives of young adults once they have moved out and are living in new settings. On the other hand, it may be that childhood school engagement is directly relevant to college sense of self-efficacy and success, and therefore continues to be salient for young adult college students (Carini, Kuh, Klein, 2006; Fredricks & Eccles, 2006). Regardless, these findings point to the importance of identifying relevant influences occurring in the lives of young adults.

Research Question 2

The second question guiding the study assessed the impact of perceived racial and ethnic microaggression and ethnic identity on self-efficacy, substance abuse, and criminal intent of young adults after controlling for the influence of risk and protective factors. The relationships between perceived microaggression and the outcomes of well-being were expected to be similar to the associations between childhood risk factors and well-being. Microaggression was hypothesized to have a negative relationship with self-efficacy and to be positively related to substance abuse and criminal intent. Meanwhile, the relationship between ethnic identity and the measures of well-being were expected to reflect similar patterns to those found for childhood protective factors; thus ethnic identity was expected to be positively related to self-efficacy and negatively related to substance abuse and criminal intent. These relationships were expected to be independent of the impact of the identified childhood risk and protective factors.

Results. In accordance with the hypothesis, a significant negative association between racial and ethnic microaggression and academic self-efficacy was found. Conversely, ethnic identity was significantly and positively related to self-efficacy. These relationships existed independent of the childhood risk and protective factors measured in the study. Microaggression and ethnic identity, however, were not significantly related to the outcome variables of substance abuse and criminal intent. Examination of the R-square values show relatively small contributions to the variance associated with the outcome constructs when microaggression and ethnic identity were added to the model containing the risk and protective factors. The results, however, indicate that the risk and protective factors explain the majority proportions of those variances.

Discussion. A central concern of the current study addressed by this research question concerns the high rates of social, emotional, behavioral, and academic problems in nonwhite young adults. As noted in earlier chapters, these unacceptably high rates point to the importance of examining the dynamics and influences directly related to race and ethnicity that may possibly explain discrepancies in poor outcomes between nonwhite and white young adults. Thus, racial and ethnic discrimination was identified as an important variable to examine as a risk factor that may affect young adult well-being. In a similar context, ethnic identity was identified as a protective factor.

Evidence regarding the physical and emotional influences of racial discrimination on young adult behavior is fairly extensive, less known, however, about the impact of ethnic identity on young adult behavior. Further, evidence about the combined impact of these two factors on academic success and behavioral problems is very limited. Study results indicating that racial and ethnic microaggression were negatively related to college

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self-efficacy supports prior findings that perceived racial discrimination is associated with negative beliefs about the importance of school and beliefs about the academic competence (Wong, Eccles, & Sameroff, 2003). Furthermore, the finding in this study that ethnic identity is positively associated with college self-efficacy is consistent with prior studies that have found similar associations between ethnic identity and self-efficacy, as well as a range of other positive outcomes of well-being (Phinney, 1992; Phinney, Cantu, & Kurtz, 1997; Phinney, Dupont, Espinosa, Revill, & Sanders, 1994; Roberts et al., 1999; Umana-Taylor & Updegraff, 2007; Utsey, Chae, Brown, & Kelly, 2002).

Although findings necessitate additional empirical endorsement, they do provide meaningful contributions toward understanding the gaps in the literature that were identified in the onset of the study. First, the findings suggest that microaggression and ethnic identity are risk and protective influences occurring in the current social ecologies and interpersonal relations of the young adult participants of this study. Second, the findings point to possible dynamics of how people of color experience and are impacted by racial injustice, which begins to provide direction for continued examination of factors that cause racial discrepancies in outcomes of well-being for nonwhite young adults. Notably, college self-efficacy is potentially particularly relevant toward well-being during the transition to adulthood since success in college is becoming increasingly important toward establishing the roles and responsibilities of adulthood.

On the other hand, the study findings suggest that negative behavioral outcomes, such as substance use and criminal attitude, are not directly related to perceived discrimination or ethnic identity. These results do not corroborate the small body of research findings that link these variables to behavioral outcomes. Prior research has linked

late childhood and adolescent experiences of perceived discrimination to conduct problems in adolescence (Brody et al., 2008), and shown that perceived racial discrimination was a strong predictor of violent behavior (Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman, 2004) and substance use (Gibbons et al., 2004) in young adults. In addition, studies of ethnic identity reveal a number of significant findings with regard to social and emotional outcomes, but very few studies have examined impacts on behavioral outcomes. Importantly, some of these studies have found that perceived discrimination and ethnic identity may have an interactive relationship in the sense that ethnic identity buffers the impact of discrimination for a number of emotional and behavioral outcomes (Caldwell et al., 2004; Lee, 2005; Umaña-Taylor & Updegraff, 2007; Sellers & Shelton, 2003; Yip et al., 2008). The models in the current study did not test for this type of relationship between the two variables, an important consideration for continued investigation.

It is also worth noting that the study's findings do not help explain why children and adolescents of color are less likely than white youth to develop drug problems early in life, but more likely to have problems in young adulthood. Nor do they explain the overrepresentation of nonwhite young adults in crime statistics. Clearly, there are additional variables and processes occurring in young adulthood that are not yet well understood.

The amount of variance explained in the outcome variables across the different structural models warrants additional attention. As shown in Table 4.4, the addition of the microaggression and ethnic identity constructs to the structural model did increase the amount of variance explained in the latent outcome variables. Childhood risk and protective factors explain substantially larger portions of the variance in outcomes than

microagression or ethnic identity. This makes substantive sense when one considers that early onset of negative behavior is known to be a major etiological risk factor for negative life course trajectories involving antisocial behaviors like substance abuse and criminality. Although the items in the childhood risk factor of early onset of negative behaviors, and young adulthood measures of substance abuse and criminal intent differ in content, they explicitly address similar constructs. Likewise, one would expect that childhood school commitment and course self-efficacy – the sense of being able to manage coursework in college – to be related since they measure and are related to a similar underlying domain. The same is not true for the neighborhood or family measures, nor for microaggression and ethnic identity.

Perhaps even more revealing is the amount of *unexplained* variance in the latent constructs; this is true even in the final model that included all of the exogenous risk and protective factors and microaggression and ethnic identity variables. As discussed in Chapter 4, the R-square coefficients revealed that 8.4% of the variance of self-efficacy, 48.3% of substance abuse, and 13.2% of criminal intent were explained. Clearly, variables influencing these outcomes have yet to be identified, and further models aimed at explaining well-being in young adults need to be developed and tested.

Research Question 3

The third research question addressed differences in relationship among childhood risk and protective factors, perceived racial microaggression, ethnic identity, and young adult problem behavior and self-efficacy between racial/ethnic groups. The literature reviewed in Chapter 2 regarding racial microaggressions and ethnic identity, and the

relationship between these two constructs, point to differential experiences for people from different racial groups (Arauja & Borrell, 2006; Brondolo et al; 2008; Solorzano, 2000; Sue, 2010; Szalacha et al., 2003; Umana-Taylor & Updegraff, 2007). Scholars in these areas urge researchers not to expect all nonwhite groups to have the same experiences. Some explain that obscuring differences is a discriminatory act in itself and has limited potential to inform culturally sensitive and effective interventions (Araujo & Borrell, 2006; Sue, 2010; Umaña-Taylor & Updegraff, 2007). It was therefore hypothesized that patterns of associations between the independent and outcome variables would differ by racial group.

As noted in Chapter 4, the multi-group analysis that was intended to answer Research Question 3 did not run properly due to inadequate numbers of participants in each racial group. ANOVA tests were subsequently conducted as an exploratory step to begin to answer this research question. These analyses were intended to address the question of whether there were differences in the experiences of discrimination and ethnic identity between racial and ethnic groups.

Results. Mean score differences were found on the *Multigroup Ethnic Identity Measure* (MEIM) and multiple comparisons between the racial/ethnic groups revealed significantly higher scores for Latino/Hispanic and black participants than Asian and white participants. Results for the *Racial and Ethnic Microaggressions Scale* (REMS) indicated that all nonwhite groups reported significantly higher levels of perceived racial and ethnic microaggression than their white peers. No significant differences, however, were found between the mean scores across the racial and ethnic groups.

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Another important consideration portrayed in prior studies suggests that the content and dynamics of discrimination are different for people from different racial and ethnic backgrounds. In order to further examine group differences in a more meaningful way, ANOVA tests were also conducted between racial/ethnic groups for each subscale of the REMS. These tests revealed that the groups reported differential rates of experiences of microaggression depending on the type of discrimination in question.

The mean score for Latino/Hispanic participants on the *assumptions of inferiority scale* was statistically equivalent to blacks, but higher than Asian and whites. This group's scores on the *second-class citizen and assumptions of criminality subscale*, however, were lower than blacks and not statistically different from any of the other groups. This group did not differ significantly from any of the groups on the *microinvalidations subscale*. Latino/Hispanics reported more frequent experiences of *exociticism and assumptions of similarity* than black and white participants; there was no difference on these subscales between Latino/Hispanic and Asian students. The Latino/Hispanic mean scores for the *environmental* and *workplace and school subscales* were statistically significantly higher than the white participants, while similar to the other groups. This was the same pattern for this group's ethnic identity mean scores.

Black participants reported significantly higher scores on the assumptions of inferiority subscale than white and Asian groups; blacks were statistically similar to Latino/Hispanic participants on this subscale. Blacks also reported statistically significant higher mean scores on the second-class citizen and assumption of criminality subscales than any other group; none of the other groups were statistically different from each other for this scale. Blacks also experienced significantly higher levels of microinvalidations than

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Asian and white groups while there was no difference on this subscale between blacks and Latino/Hispanics. For the exoticization and assumption of similarity scale, blacks' mean scores were significantly higher than whites, but significantly lower than Asian and whites' mean scores. Blacks reported higher frequency of experiences of environmental and work and school types of microaggression than whites and equivalent rates with the nonwhite groups. This group's mean scores on the ethnic identity scale were equivalent to Latino/Hispanics' and higher than white and Asian mean scores.

The mean score for Asian participants on the assumption of inferiority scale was significantly lower than scores reported by black and Latino/Hispanic subjects; there was no difference between Asian and white subjects. Asians had lower mean scores than black participants on the second-class citizen and assumption of criminality and microinvalidation scales but were not different from other groups. Asian participants reported statistically significantly higher mean scores than white and black participants on the exoticization and assumptions of similarity scale, while scores were statistically equivalent to the Latino/Hispanic group. Asians did not demonstrate significant differences from any other group for either the environmental or work and school scales. Mean scores on the ethnic identity scale for Asians were significantly lower than black and Latino/Hispanic subjects and equivalent to the scores of white subjects.

Discussion. First, the finding that white participants had significantly lower scores on the total microagression scale than all nonwhite groups provides important confirmation that the phenomenon of perceived discrimination is a significant issue for people of color. This finding is consistent with a substantial body of literature which suggests that people of

color consistently experience racial and ethnic discrimination (Brown, 2000; Rivera, Forquer, & Rangel, 2010; Sue, 2010).

Although incongruent with the study hypothesis, the finding that nonwhite groups experience perceived discrimination at statistically similar levels was not necessarily surprising. Prior studies reveal that different groups often experience different types of discrimination (Arauja & Borrell, 2006; Brondolo et al; 2008; Solorzano, 2000; Sue, 2010; Szalacha et al., 2003), but not that groups as a whole experience less discrimination from one another.

Findings for the ethnic identity scale also suggest the presence of different experiences for racial and ethnic groups. For example, in the current Latino/Hispanic and black participants endorsed higher levels of ethnic identity than their Asian or white peers.

The results of the analyses assessing group differences for different types of perceived racial and ethnic discrimination suggest that different racial groups experience different types of racial and ethnic microaggression at different rates. This finding, and the differential levels of ethnic identity across the racial and ethnic groups, confirms the importance of examining differences across racial/ethnic groups. Further interpretation of these results is guarded for several reasons. As noted in Chapter 3, the possibility of increasing Type I errors is present when multiple comparisons such as these are conducted. In addition, further interpretation of the study's findings with regard to differences in microaggression and ethnic identity awaits findings from research that uses larger samples to be able to compare the relationships between variables in the various racial and ethnic groups, ideally with longitudinal data that allows for more measurement intervals. Importantly, such comparisons will also be better made with additional investigations in the

research literature to gain thorough background understanding of the diversity within each of the groups, as well as an understanding of the specific histories of oppression and current experiences in the social stratification. In addition, they would include specific a priori hypothesis allowing for specific models to be tested.

Additional Findings

Correlations between each of the exogenous variables with one another were analyzed. Similarly, tests of correlation were conducted for each of the endogenous variables with each other. While findings from these analyses did not respond directly to the research questions, they are interesting and raise some potentially important implications.

Significant relationships between the risk and protective factors were found. The risk factors of early onset and family conflict were positively and significantly associated with each other, and the protective factors of neighborhood attachment and school engagement were positively and significantly associated with each other. Meanwhile, microaggression and ethnic identity are significantly and positively correlated, suggesting that the more often someone experiences perceived racial discrimination, the higher the level of ethnic identity, and vice versa. This finding differs from those observed in the relationships between the childhood risk and protective factors in the study and may signify unique and complex relationships between these constructs that are not entirely understood. Whether perceptions of discrimination elicit an internal strengthening of ethnic identity, or if an individual's participation and beliefs about belonging to their ethnic group raise an increased awareness or sensitivity to discriminatory behavior, is not obvious.

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A range of relationships between the two constructs have been evidenced in the literature. Several studies suggest that ethnic identity may buffer effects of discrimination (Sellers et al., 2006; Sellers & Shelton, 2003; Umaña-Taylor & Updegraff, 2007; Yip et al., 2008). Meanwhile, some research has shown actual improvements to mental health indicators with higher levels of perceived discrimination (Finch, Kolody, & Vega, 2000; Romero & Roberts, 2003; Szalacha et al., 2003). Still, other research findings have demonstrated that the relationship between ethnic identity and self-esteem was negatively impacted by increases in perceived discrimination (French & Chavez, 2010). These findings are each described in relationship to specific racial or ethnic groups, and the measures of perceived discrimination and ethnic identity differ, making it difficult to discern what is causing the findings to differ across the studies.

Testing for an interaction between these two variables might be an important next step with the data from the current study. Examining the relationships separately for each racial/ethnic group would be important, as would careful consideration of the differences between measurement instruments in the literature, in comparison to the cognitive scale of the MEIM used in the current study. Recall that the confirmatory factor analysis of the ethnic identity measure in the current study resulted in excluding the dimension of affective ethnic identity. The measurement model may call for further revision to be more inclusive of the available data before pursuing further analyses.

Also interesting are the results in the study that found significant positive correlations both between microaggression and the childhood risk factors in the model, and ethnic identity with early onset and childhood school engagement. Although speculative at best, it is possible that these relationships occur because ethnic identity and perceived

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discrimination begin in childhood alongside other risk and protective factors and have cumulative and enduring development into young adulthood. The likelihood of this is supported with some research and discussed in the literature regarding both ethnic identity and perceived discrimination (Brondolo et al., 2008; Gibbons et al., 2004).

The interpretation of the results of this study must involve a deliberation regarding methodological limitations before implications for policy, intervention, and continued research can be considered fully. The next section discusses the limitations of the study. Implications that emerge from the study's results are then highlighted.

Study Limitations

Perhaps the most significant limitation of the current study is that it applies cross-sectional inquiry to describe relationships between mechanisms of childhood experiences impacting young adult outcomes. In addition, to measure the influence of early risk and protective factors, young adult participants were asked to think retrospectively about their childhood. Recall may have been a problem for some subjects. Generalization of study results is limited as well. Oversampling was used to ensure representation of the nonwhite racial and ethnic groups in the sample; random selection was used to select subjects. These strategies increase the likelihood that the sample is representative of the undergraduate population of the college. On the other hand, the response rate was low and over-represented by female respondents (64%), which raises concern of a possible selection bias. Also, the student body at the college is a unique mixture of people from a range of social and cultural backgrounds that is reflective of the population of the greater Denver metro area. Finally, data from white participants were included in this study, despite the fact that

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one would not necessarily expect white young adults to have similar experiences with regard to racial/ethnic discrimination or ethnic identity as nonwhites. They were included in the sample in order to compare their data to nonwhite subjects.

Using web-based and email technology was efficient and provided excellent organizational advantages for the data management, and some research has found that web-based surveys have comparable response rates to other formats (Kaplowitz, Hadlock, & Levine, 2004). However, others have found that web-based surveys have substantially lower response rates on average than other types (Manfreda, Bosnjak, Barzelak, Haas, & Vehovar, 2008). A range of possible explanations are considered in the literature, all of which may be at play in the current study. One possibility is that as technological advances have made survey research so easy, many people feel that they asked to participate in research too often. In particular, college students may be recipients of many academic research surveys. Another possible factor impacting the response rate may be that some people find the web-based approach impersonal and hesitate to answer questions about personal questions in such an impersonal format. Also, potentially impeding response rates is that some people have concerns when they receive emails sent in bulk about how their personal contact information was accessed, and are wary to respond, thinking they may become susceptible to further intrusions (Sills & Song, 2002).

The threat of bias is intrinsic to any research effort that labels racial and ethnic groups, since the categories are socially constructed and up to individual interpretation. For example, an individual of middle-eastern descent might choose "white" as his or her racial group. That person, however, is likely to have a much different experience with perceived discrimination and ethnic identity than those of European descent. Another example might

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be that with parents from different racial or ethnic groups may or may not choose to identify more with one of them. Prior to being asked to participate in the study, respondents had self-selected their race/ethnicity from categories that were presented when they enrolled for the semester. Research has found that people of color are likely to identify differently depending on the context, potential consequences, and response choices made available (Song & Hashem, 2010).

Several additional limitations regarding measurement should be noted. The confirmatory factor analysis (CFA) resulted in a measurement model that excluded a subscale, one item of another scale, and necessitated a number of error term correlations to find adequate fit. First, the affective dimension of ethnic identity was excluded from the model as a result of not finding adequate fit without eliminating items and/or correlating error terms that made no substantive sense. This enhances the validity of measurement in some ways but limits the analyses considerably as well since the affective dimension of ethnic identity is not measured in the study.

Additionally, an item was deleted from the substance abuse measure, the CRAFFT, due to lack of variance in the item response and statistical evidence of improved fit it brought to delete it. The item deleted was about family or friends telling them they should cut down on use. It is not obvious why this item, of all of the questions in the scale, had so little endorsement. The CFA analysis was conducted with rigor and integrity, including all decisions to correlate error terms in a given scale; however, the result showed limitations to the measurement of the constructs. And, error term correlations do not really improve the measurement (Byrne, 2012), pointing to the importance of considering further refinement and/or the use of alternative measures in future studies.

In addition, the model was complex, largely a result of the inclusion of the 45-item REMS. The model complexity, in conjunction with relatively small numbers of participants, limited the analysis. The mean scores could not accurately reflect the modified measurement specifications, so they could not be used in the structural analysis, even though the confirmatory factor analysis had been conducted. Thus, the analyses had to test the full measurement models in every subsequent analysis making complex computations impossible.

Another important consideration is that REMS is a new instrument for measuring racial and ethnic discrimination. Only one study has been published to date that uses the instrument. The article reports on testing the REMS with two separate samples (Nadal, 2011). The author opted to recode the data into dichotomous variables and was able to validate the measure through CFA in SEM. The revised instrument was named the "REMS-checklist", and the original is now referred to as the "REMS-45". The current study contributes to the literature by utilizing the full scale and approaching the measurement model specifications differently. The instrument seems to be gaining evidence of strong validity and reliability, but has repeatedly needed modifications in order to find adequate fit. Further analyses of the data from the current study, as well as future studies, necessitate consideration of the best format to use for the instrument.

Finally, this study examined only a small portion of what needs to be accomplished toward understanding the causal factors for both well-being and for problem outcomes in young adults. Nonetheless, potential implications for policy and intervention can be identified. Most of these implied policy and interventions would necessitate considerable further research before they could be effectively developed and implemented. The next

section identifies policy and intervention implications. Implications for research are also noted.

<center>Implications for Social Work Practice and Policy</center>

Many young adults, particularly those with limited resources and people of color, face numerous challenges. As a profession, social work seeks to assist vulnerable people and to challenge social injustice. Clearly, the issues addressed in this study have important implications for social workers who are interested in improving outcomes for young adults. Study results may also have implications for policy strategies that address issues of injustice and inequity. Implications for practice, policy, and research are identified and summarized below.

Policy and Practice

- Evidence indicating that early onset of negative behavior and childhood school engagement are significantly related to outcomes in young adulthood points to the importance of implementing universal and targeted prevention initiatives during early childhood.

- The finding that childhood school engagement promotes college self-efficacy illustrates the importance of prevention and intervention efforts that focus on promoting academic engagement with children and adolescents.

- Childhood risk and protective factors of family conflict and neighborhood attachment were not related to study outcomes. This may imply that certain commonly identified risk and protective factors for child and adolescent behavior have limited predictive

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capacity for young adult outcomes. Furthermore, microaggression and ethnic identity appear to be risk and protective influences that occur during young adulthood. These findings suggest that interventions should also be developed to target young adults in their current life stage and social ecologies, and that public initiatives should be developed to support and guide young adults.

- Evidence from this study adds to the existing knowledge about academic self-efficacy among young adults. Significant relationships between this variable and microaggression and ethnic identity found in the study may also help inform interventions that aim to improve college performance and prevent attrition. Study findings further suggest that interventions and social work practice approaches should focus more directly on preventing the occurrence of discriminatory behaviors. Targeting interventions toward helping professionals such as social workers, probation officers, mental health clinicians, and educators may be an ideal place to affect positive change.

- Other prevention efforts might be aimed at bolstering resilience toward discriminatory acts. Strengthening ethnic identity might also be a promising focus for building resilience in young adults and one that fosters self-determination and dignity.

Chapter Summary

Young adulthood is a unique stage of human development characterized by many difficult challenges. Existing evidence pertaining to risk and resilience and to life course theories have identified a number of factors that potentially set children and adolescents on a trajectory toward positive outcomes or toward problem behavior and emotional problems during young adulthood (Catalano, Hawkins, Berglund, Pollard, & Arthur, 2002; Jenson & Fraser, 2011; Kok, 2007; Sampson & Laub, 1997). In addition, analysis of a number of large population studies have brought advancements in understanding the pathways and patterns characterizing populations of young adults in the United States (Furstenberg et al., 2005; Osgood, Ruth, & Eccles, 2005; Sandefur, Eggerling-Boeck, & Park, 2005; Settersten, Fursenberg, & Rumbaut, 2005). Despite these advances, relatively little is known about the factors that are associated with well-being or problem behavior during young adulthood.

The current study was conducted to contribute to existing evidence about how risk and protective processes, racial discrimination, and ethnic identity affect well-being and problem behavior during young adulthood. These constructs were tested using structural equation modeling. In addition, exploratory tests were conducted to examine differences in types of microaggression as well as ethnic identity across racial and ethnic groups. The findings suggest that childhood risk and protective factors, racial and ethnic microaggressive incidents, and ethnic identity are all important factors in young adult development. Social workers engaged in practice and policy efforts to support vulnerable young adults should consider addressing issues of early risk and protection, racial discrimination, and ethnic identity in their work.

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Thank you for participating in this research!

It will take you about 20 minutes to complete the survey. To thank you for your time, at the end of the survey you will have the **chance to win a gift certificate of $50 or $100** to Amazon.com Your participation is truly valued.

PLEASE NOTE: In order to protect your privacy, your answers on the survey won't be connected to you in any way. Because of this you will need to complete it in one session. If you log off and have not finished please return later to the email and start again. You will not be able to return to the same survey to finish where you left off.

Informed Consent

Informed Consent
Risk and Resilience, Racial Microaggression, Ethnic Identity, and Well-Being in Young Adulthood
<u>Introduction</u>

This research study that you are being asked to participate in will examine how racial discrimination, ethnic identity, and childhood experiences impact the well-being of college students. The study is being conducted by Shandra Forrest-Bank to fulfill the dissertation requirements of a doctorate level degree in social work. Results will be shared with the Metropolitan State College of Denver (MSCD) in addition to being analyzed for the dissertation completion and shared in journal articles and conference presentations. Shandra Forrest-Bank can be reached at (720) 346-3329. This project is supervised by Dr. Jeffrey Jenson, Graduate School of Social Work, University of Denver, Denver, CO 80208, (303) 871-2526.

<u>Procedures</u>

Participation in this study involves responding to questions about experiences you might have had with racial discrimination, your sense of ethnic identity, your emotional well-being, comfort level with your ability to do college, and facts about your childhood.

Completion of the survey will take about 20 minutes of your time and is the only thing that will be asked of you for your participation in this study.

<u>Risks/Discomforts</u>

Participation in this project is completely voluntary. There is very little risk to you involved in taking the survey other than that you might feel emotional responses to some of the questions and that the survey requires about 20 minutes of your time. If you experience discomfort you can discontinue the survey at any time. It is also your right to choose not to answer any questions that may make you feel uncomfortable. Refusal to participate or withdrawal from participation will involve no consequence to you and has absolutely no impact on your status with MSCD.

You may wish to seek professional assistance. The MSCD counseling center is located in the Tivoli Student Union, Room 651 (303 556-3132). To begin counseling you may go to the Center (8 AM to 5 PM, Monday through Friday) or call for an appointment. Counseling staff are on call to assist you in case of a personal crisis. If you need crisis assistance after 5 PM, or on weekends, please call the crisis number at (303)352-4455.

<u>Benefits</u>
Through your participation, the research findings might help build knowledge about the impact of discrimination in our society, and the needs of young adults in college.

<u>Anonymity</u>

The researcher will never know your name or anything else that could identify who you are. All contact with you involving this study is sent by MSCD so that your email address is kept private and never given to the researchers.

<u>Questions about your Rights as Research Participants</u>

If you have any concerns or complaints about how the survey, please contact Susan Sadler, Chair, Institutional Review Board for the Protection of Human Subjects, at 303-871-3454, or Sylk Sotto-Santiago, Office of Research and Sponsored Programs at 303-871-4052 or write to either at the University of Denver, Office of Research and Sponsored Programs, 2199 S. University Blvd., Denver, CO 80208-2121.

I have read and understood the above consent form and agree to participate in this study.

Yes	No
○	○

Demographics

The first few questions that follow ask about some general information about you.

How old are you?

[   ]

What sex are you?

Male	Female
○	○

What sex are you in your own words?

[   ]

What race/ethnicity are you?

○ Asian

○ Latino/Hispanic

○ Black

○ White

What is your race/ethnicity in your own words?

[   ]

What is your sexual orientation?

○ heterosexual/straight

○ GLBTQ

What is your sexual orientation in your own words?

[   ]

Generation in U.S.

	Yes	No
Were you born in the United States?	○	○
Was your mother born in the United States?	○	○
Was your father born in the United States?	○	○

○ 1   ○ 3   ○ 5   ○ 7 or more
○ 2   ○ 4   ○ 6

current family

Are you in a romantic relationship with someone (that is, do you have a steady boyfriend, girlfriend, partner, husband, wife)?

Yes   No
○   ○

How many children do you have?

○ 0   ○ 2   ○ 4   ○ 6
○ 1   ○ 3   ○ 5   ○ 7+

living

In what type of place are you currently living?

○ house   ○ dormitory   ○ work release   ○ group home or treatment center

○ condo   ○ hotel/motel   ○ mobile home   ○ other

○ apartment   ○ shelter

Who do you live with most of the time? Check all that apply.

☐ No one, I live alone   ☐ Stepmother   ☐ Grandparents   ☐ Intimate partner/wife or husband

☐ Mother   ☐ Stepfather   ☐ Other relatives ☐ Your children

☐ Father   ☐ Siblings   ☐ Friends/roommates

Financial status

How many hours of paid employment did you have on average in the past month?

0   1-29   30-40   More than 40
○   ○   ○   ○

At the end of the month do you end up with:

some money left over   just enough to make ends meet   not enough money to make ends meet
○   ○   ○

Do you have a no difficulty, a little, some, or a great deal of difficulty in paying your bills?

no difficulty   a little   some   a great deal
○   ○   ○   ○

"If it weren't for my parents' financial support, I don't know how I would make it."

Please check the response that fits best for you:

Strongly Agree   Agree   Disagree   Strongly Disagree
○   ○   ○   ○

The next section asks some questions about different aspects of your life (your behavior and attitudes, family, school, and neighborhood) during your childhood.

How old were you when you first:

	Never have	10 or younger	11	12	13	14	15	16	17 or older
smoked marijuana?	○	○	○	○	○	○	○	○	○
smoked a cigarette, even just a puff?	○	○	○	○	○	○	○	○	○
had more than a sip or two of beer, wine or hard liquor (for example, vodka, whiskey, or gin)?	○	○	○	○	○	○	○	○	○
began drinking alcoholic beverages regularly, that is, at least once or twice a month?	○	○	○	○	○	○	○	○	○
got suspended from school?	○	○	○	○	○	○	○	○	○
got arrested?	○	○	○	○	○	○	○	○	○
attacked someone with the idea of seriously hurting them?	○	○	○	○	○	○	○	○	○
belonged to a gang?	○	○	○	○	○	○	○	○	○

When you read each of the following statements, think if it would describe you for a couple of months or more during your childhood:

	YES!	yes	no	NO!
I did the opposite of what people told me.	○	○	○	○
I ignored rules that got in my way.	○	○	○	○
I liked to see how much I could get away with.	○	○	○	○
Did you have to have everything right away?	○	○	○	○
Did you often switch from activity to activity rather than sticking to one thing at a time?	○	○	○	○
Did you often do things without thinking about what would happen?	○	○	○	○

childhood family

Do you remember a time before the age of 18...

Choose the response that best fits.

	Yes	No
That you did not have enough food for more than a week?	○	○
That you did not have a regular place to live (for example when you had to sleep in a car, on the street, in a homeless shelter)?	○	○
That you could not receive needed medical care due to lack of money?	○	○

When you read each of the following statements, think if it would describe your family for a couple of months or more during your childhood:

	YES!	yes	no	NO!
People in my family often insulted or yelled at each other.	○	○	○	○
People in my family had serious arguments.	○	○	○	○

	YES!	yes	no	NO!
We argue about the same things in my family over and over.	○	○	○	○
My parents would ask if I'd gotten my homework done.	○	○	○	○
My parents would know if I did not come home on time?	○	○	○	○

	YES!	yes	no	NO!
When I was not at home, one of my parents knew where I was and who I was with.	○	○	○	○
The rules in my family were clear.	○	○	○	○
My family had clear rules about alcohol and drug use.	○	○	○	○
If I drank some beer or wine or liquor (for example, vodka, whiskey, or gin) without my parents' permission, I would have been caught by my parents?	○	○	○	○
If I skipped school I would have been caught by my parents.	○	○	○	○

	YES!	yes	no	NO!
If I carried a handgun without my parents' permission, I would have been caught by my parents?	○	○	○	○
Did you feel very close to your mother?	○	○	○	○
Did you share your thoughts and feelings with your mother?	○	○	○	○
Did Do you feel very close to your father?	○	○	○	○
Did Do you share your thoughts and feelings with your father?	○	○	○	○

Childhood school

Thinking back on middle and high school:

	Mostly F's	Mostly D's	Mostly C's	Mostly B's	Mostly A's
What were your middle school grades like?	○	○	○	○	○
What were your high school grades like?	○	○	○	○	○

When you read each of the following statement, think if it would describe you most of the time before you were 18:

	YES!	yes	no	NO!
Did you think your schoolwork was important?	○	○	○	○
Were you interested in your classes?	○	○	○	○
Did you enjoy being at school most of the time?	○	○	○	○
Did you try to do your best in school?	○	○	○	○
I enjoyed being in school	○	○	○	○
I looked forward to going to school	○	○	○	○

These questions ask about your parents' education:

	Completed grade school or less	Some high school	Completed high school	Some college	Completed college	Graduate or professional school after college	Don't know
What is the highest level of schooling your father completed?	○	○	○	○	○	○	○
What is the highest level of schooling your mother completed?	○	○	○	○	○	○	○

Childhood neighborhood

When you read each of the following statements, think if it would describe how you you felt for a couple months or more about any neighborhood you lived in before you were 18:

	YES!	yes	no	NO!
I wanted to get out of my neighborhood.	○	○	○	○
I liked my neighborhood.	○	○	○	○
If I had to move, I would have missed my neighborhood.	○	○	○	○
My neighbors noticed when I am doing a good job and let me know.	○	○	○	○
There were people in my neighborhood who encouraged me to do my best.	○	○	○	○
There were people in my neighborhood who were proud of me when I do Something well.	○	○	○	○

When you read each of the following statements, think about how likely it was that these things were happening in any neighborhood you lived in before you were 18:

	Very Unlikely	Unlikely	Likely	Very Likely
Crime and/or drug selling.	○	○	○	○
Fights.	○	○	○	○
Lots of empty or abandoned buildings.	○	○	○	○
Lots of graffiti.	○	○	○	○

microagressions

This section asks you about your experiences with race. It is the the only section that is this long and will take about 5 minutes. Your responses are very important for the research. You will be close to finished with the survey when you are done with this section.

Think about your experiences with race.
Please read each item and think of how many times this event has happened to you in the **PAST SIX MONTHS**.

1. I was ignored at school or at work because of my race. [_____]

2. Someone's body language showed they were scared of me, because of my race. [_____]

3. Someone assumed that I spoke a language other than English. [_____]

4. I was told that I should not complain about race. [_____]

5. Someone assumed that I grew up in a particular neighborhood because of my race. [_____]

6. Someone avoided walking near me on the street because of my race. [_____]

7. Someone told me that she or he was colorblind. [_____]

8. Someone avoided sitting next to me in a public space (e.g., restaurants, movie theaters, subways, buses) because of my race. [_____]

9. Someone assumed that I would not be intelligent because of my race. [_____]

10. I was told that I complain about race too much. [_____]

11. I received substandard service in stores compared to customers of other racial groups. [_____]

12. I observed people of my race in prominent positions at my workplace or school.

13. Someone wanted to date me only because of my race.

14. I was told that people of all racial groups experience the same obstacles.

15. My opinion was overlooked in a group discussion because of my race.

16. Someone assumed that my work would be inferior to people of other racial groups.

17. Someone acted surprised at my scholastic or professional success because of my race.

18. I observed that people of my race were the CEOs of major corporations.

19. I observed people of my race portrayed positively on television.

20. Someone did not believe me when I told them I was born in the US.

21. Someone assumed that I would not be educated because of my race.

22. Someone told me that I was "articulate" after she/he assumed I wouldn't be.

23. Someone told me that all people in my racial group are all the same.

24. I observed people of my race portrayed positively in magazines.

25. An employer or co-worker was unfriendly or unwelcoming toward me because of my race.

26. I was told that people of color do not experience racism anymore.

27. Someone told me that they "don't see color."

28. I read popular books or magazines in which a majority of contributions featured people from my racial group.

29. Someone asked me to teach them words in my "native language."

30. Someone told me that they do not see race.

31. Someone clenched her/his purse or wallet upon seeing me because of my race.

32. Someone assumed that I would have a lower education because of my race.

33. Someone of a different racial group has stated that there is no difference between the two of us.

34. Someone assumed that I would physically hurt them because of my race.

35. Someone assumed that I ate foods associated with my race/culture every day.

36. Someone assumed that I held a lower paying job because of my race.

37. I observed people of my race portrayed positively in movies.

38. Someone assumed that I was poor because of my race.

39. Someone told me that people should not think about race anymore.

40. Someone avoided eye contact with me because of my race.

41. I observed that someone of my race is a government official in my state.

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The next section asks some questions about your emotional well-being.

Choose the response that best fits how you feel about each of the following statements:

	Strongly Agree	Agree	Disagree	Strongly Disagree
I feel that I am a person of worth, at least on an equal plane with others.	○	○	○	○
I feel that I have a number of good qualities.	○	○	○	○
All in all, I am inclined to feel that I am a failure.	○	○	○	○
I am able to do things as well as most other people.	○	○	○	○
I feel I do not have much to be proud of.	○	○	○	○
I take a positive attitude toward myself.	○	○	○	○
On the whole, I am satisfied with myself.	○	○	○	○
I wish I could have more respect for myself.	○	○	○	○
I certainly feel useless at times.	○	○	○	○
At times I think I am no good at all.	○	○	○	○

During the past month, how much of the time did you feel:

	none of the time	some of the time	most of the time	all of the time
1) under strain, stress, or pressure	○	○	○	○
2) in low spirits	○	○	○	○
3) moody or brooded over things	○	○	○	○
4) downhearted and blue	○	○	○	○
5) depressed	○	○	○	○
6) tense or high-strung	○	○	○	○
7) bothered by nervousness or nerves	○	○	○	○
8) restless and upset	○	○	○	○
9) anxious or worried	○	○	○	○
10) unable to relax	○	○	○	○

college

The purpose of this section is to find out a little about how college is going for you.

Click on the point in the scale that best fits how confident you are that you could successfully complete the following tasks:

	Not at all confident										Extremely confident
	0	1	2	3	4	5	6	7	8	9	10
Research a term paper.											
Write course papers.											
Do well on your exams.											
Take good class notes.											
Keep up to date with your schoolwork.											
Manage time effectively.											
Understand your textbooks.											

	Not at all confident							Extremely confident			
	0	1	2	3	4	5	6	7	8	9	10
Participate in class discussions.											
Ask a question in class.											
Get a date when you want one.											
Talk to your professors.											
Talk to university staff.											
Ask a professor a question.											
Make new friends at college.											
Join a student organization.											

In general, what were your grades like this past year?

Mostly A's	Mostly B's	Mostly C's	Mostly D's	Mostly E's or F's
○	○	○	○	○

How often do you feel that the school work you are assigned is meaningful and important?

Never	Seldom	Sometimes	Often	Almost Always
○	○	○	○	○

How interesting are most of your courses to you?

Quite Interesting	Fairly interesting	Slightly dull	Very dull
○	○	○	○

How important do you think the things you are learning in school are going to be for your later life?

very important	quite important	fairly important	slightly important	not at all important
○	○	○	○	○

Now thinking back over the past year in school, how often did you...

	Never	Seldom	Sometimes	Often	Almost Always
enjoy being in school?	○	○	○	○	○
hate being in school?	○	○	○	○	○
try to do your best work in school?	○	○	○	○	○

substance abuse

You have reached the last section! These questions ask you about substance use and crime:

	Yes	No
Have you ridden in a car driven by someone (including yourself) who had been drinking or using drugs?	○	○
Do you use alcohol or drugs to relax, feel better about yourself, or fit in?	○	○

	Yes	No
Do you use alcohol or drugs while you are by yourself, alone?	○	○
Do you forget things you did while using alcohol or drugs?	○	○
Do your family or friends tell you that you should cut down your drinking or drug use?	○	○
Have you gotten into trouble while using alcohol or drugs?	○	○

Choose the response that best fits how you feel about each of the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I am not likely to commit a crime in the future.	○	○	○	○	○
I would keep any amount of money I found.	○	○	○	○	○
I could see myself lying to the police.	○	○	○	○	○
In certain situations I would try to outrun the police.	○	○	○	○	○
I would be open to cheating certain people.	○	○	○	○	○
I could easily tell a convincing lie.	○	○	○	○	○
Rules will not stop me from doing what I want.	○	○	○	○	○

END

Thank you for your participation in the survey! If you would like to participate in the chance to win a gift certificate of $50 or$100 to Amazon.com, click on "Yes". This is just for fun and show appreciation for your participation. Nothing else will be asked of you. If you choose to participate your email address will be entered randomly into a drawing. Your survey responses will not be connected to your email so your responses will still be anonymous.

Yes	No
○	○

Default Question Block

Type in your email here for a chance to win a $50 or $100 Amazon gift card. Remember that your participation in this is optional and you only need to submit your email address if you want to be entered in the drawing. Thank you again and GOOD LUCK!

_____

APPENDIX B: Table of Measurement Instruments and Scale Items

Social Development Research Group (Arthur et al., 2002) Risk and Protective Factors

Early Onset of Negative Behaviors
How old were you when you first:
1. a. smoked marijuana?
2. b. smoked a cigarette, even just a puff?
3. c. had more than a sip or two of beer, wine or hard liquor (for example, vodka, whiskey, or gin)?
4. d. began drinking alcoholic beverages regularly, that is, at least once or twice a month?
5. e. got suspended from school?
6. f. got arrested?
7. g. carried a handgun?
8. h. attacked someone with the idea of seriously hurting them?
9. i. belonged to a gang?

Family Conflict
When you read each of the following statements, think if it would describe your family for a couple of months or more during your childhood:
1. People in my family often insulted or yelled at each other.
2. People in my family had serious arguments.
3. We argue about the same things in my family over and over.

Neighborhood Attachment
When you read each of the following statements, think if it would describe how you felt for a couple of months or more about a neighborhood you lived in before you were 18:
1. I wanted to get out of my neighborhood.
2. I liked my neighborhood.
3. If I had to move, I would have missed my neighborhood.

Commitment to School
When you read each of the following statement, think if it would describe you most of the time before you were 18:
1. Did you think your schoolwork was important?
2. Were you interested in your classes?
3. Did you enjoy school most of the time?
4. Did you try to do your best in school?
5. I looked forward to going to school.

Racial and Ethnic Microaggressions Scale (REMS) (Nadal, K, 2010)

Think about your experiences with race.
Please read each item and think of how many times this event has happened to you in the PAST SIX MONTHS:

Assumptions of Inferiorty Subscale
5. Someone assumed that I grew up in a particular neighborhood because of my race.
9. Someone assumed that I would not be intelligent because of my race.
17. Someone acted surprised at my scholastic or professional success because of my race.
21. Someone assumed that I would not be educated because of my race.
22. Someone told me that I was "articulate" after she/he assumed I wouldn't be.
32. Someone assumed that I would have a lower education because of my race.
36. Someone assumed that I held a lower paying job because of my race.
38. Someone assumed that I was poor because of my race.

Second-Class Citizen and Assumptions of Criminality Subscale
2. Someone's body language showed they were scared of me, because of my race.
6. Someone avoided walking near me on the street because of my race.
8. Someone avoided sitting next to me in a public space (e.g., restaurants, movie theaters, subways,
     buses) Because of my race.
11. I received substandard service in stores compared to customers of other racial groups.
31. Someone clenched her/his purse or wallet upon seeing me because of my race.
34. Someone assumed that I would physically hurt them because of my race.
40. Someone avoided eye contact with me because of my race.

Microinvalidations Subscale
4. I was told that I should not complain about race.
7. Someone told me that she or he was colorblind.
10. I was told that I complain about race too much
14. I was told that people of all racial groups experience the same obstacles.
26. I was told that people of color do not experience racism anymore.
27. Someone told me that they "don't see color."
30. Someone told me that they do not see race.
33. Someone of a different racial group has stated that there is no difference between the two of us.
39. Someone told me that people should not think about race anymore.

Racial and Ethnic Microaggressions Scale (REMS) (continued)

Exociticization and Assumptions of Similarity Subscale
3. Someone assumed that I spoke a language other than English.
13. Someone wanted to date me only because of my race
20. Someone did not believe me when I told them I was born in the US.
23. Someone told me that all people in my racial group are all the same.
29. Someone asked me to teach them words in my "native language."
35. Someone assumed that I ate foods associated with my race/culture every day.
42. Someone told me that all people in my racial group look alike.
43. Someone objectified one of my physical features because of my race.
45. Someone assumed that I speak similar languages to other people in my race

Environmental Microaggression Subscale
12. I observed people of my race in prominent positions at my workplace or school.
18. I observed that people of my race were the CEOs of major corporations.
19. I observed people of my race portrayed positively on television.
24. I observed people of my race portrayed positively in magazines.
28. I read popular books or magazines in which a majority of contributions featured people from my racial group.
37. I observed people of my race portrayed positively in movies.
41. I observed that someone of my race is a government official in my state

Workplace and School Microaggression Subscale
1. I was ignored at school or at work because of my race.
15. My opinion was overlooked in a group discussion because of my race.
16. Someone assumed that my work would be inferior to people of other racial groups.
25. An employer or co-worker was unfriendly or unwelcoming toward me because of my race.
44. An employer or co-worker treated me differently than White co-workers.

Multigroup Ethnic Identity Measure (Phinney, 1992)

Choose the response that best fits how you feel about each of the statements:
Cognitive Subscale
1. I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs.
2. I am active in organizations or social groups that include mostly members of my own ethnic group.
3. I think a lot about how my life will be affected by my ethnic group membership.
4. In order to learn more about my ethnic background, I have often talked
5. I participate in cultural practices of my own group, such as special food, music, or customs.

College Self-Efficacy Instrument (Solberg, 1993)

Click on the point in the scale that best fits how confident you are that you could successfully complete the following tasks:
Course Subscale

1. Research a term paper.
2. Write course papers.
3. Do well on your exams.
4. Take good class notes.
5. Keep up to date with your schoolwork.
6. Manage time effectively.
7. Understand your textbooks.

CRAFFT (Knight, et al., 1999)

1. Have you ridden in a car driven by someone (including yourself) who had been drinking or using drugs?
2. Do you use alcohol or drugs to relax, feel better about yourself, or fit in?
3. Do you use alcohol or drugs while you are by yourself, alone?
4. Do you forget things you did while using alcohol or drugs?
5. Do your family or friends tell you that you should cut down your drinking or drug use?
6. Have you gotten into trouble while using alcohol or drugs?

Criminal Intent (Backstrom & Bjorklund, 2008)

Choose the response that best fits how you feel about each of the following
1. I am not likely to commit a crime in the future.
2. I would keep any amount of money I found.
3. I could see myself lying to the police.
4. In certain situations I would try to outrun the police
5. I would be open to cheating certain people.
6. I could easily tell a convincing lie.
7. Rules will not stop me from doing what I want.

APPENDIX C

Factor Loadings for Risk and Protective Effects on Self-Efficacy (SE), Substance Abuse (SA), and Criminal Intent (CI)

	MODEL A: Risk Factors predicting SE, SA, and CI	MODEL B: Protective Factors predicting SE, SA, and CI	MODEL C: Risk and Protective Factors predicting SE, SA, and CI	MODEL D: Risk and Protective Factors and Microaggressions and Ethnic Identity predicting SE, SA, and CI
	N=467	N=457	N=457	N=358
Onset → SE	0.054 (0.064)		0.110 (0.128)	0.107 (0.122)
Family Conflict → SE	-0.023 (-0.029)		0.017 (0.023)	0.044 (0.057)
Neighborhood Attachment → SE		0.080 (0.098)	0.096 (0.117)	0.089 (0.108)
School Engagement → SE		0.122 (0.147)**	0.159 (0.192)**	0.139 (0.166)**
Onset → SA	0.665 (0.645)***		0.672 (0.630)***	0.724 (0.668)***
Family Conflict → SA	0.066 (0.070)		0.091 (0.097)	0.102 (0.108)
Neighborhood Attachment → SA		0.019 (0.021)	0.115 (0.113)	0.119 (0.117)
School Engagement → SA		-0.251 (-0.279)***	-0.063 (-0.062)	-0.025 (.060)
Onset → CI	0.084 (0.255)**		0.071 (0.197)**	0.083 (0.232)**
Family Conflict → CI	0.015 (0.051)		0.016 (0.050)	0.015 (0.048)
Neighborhood Attachment → CI		0.011 (0.033)	0.023 (0.067)	0.024 (0.072)
School Engagement → CI		-0.095 (-0.278)***	-0.072 (-0.207)**	-0.059 (-0.025)**
Onset ↔ Family Conflict	0.237 (0.304)***		0.237 (0.305)***	0.233 (0.307)***
Onset ↔ Neighborhood Attachment			-0.107 (-0.149)**	-0.107 (-0.151)**
Onset ↔ School Engagement			-0.241 (-0.340)***	-0.237 (-0.341)***
Family Conflict ↔ Neighborhood Attachment			-0.255 (-0.315)***	-0.256 (-0.315)***
Neighborhood Attachment ↔ School Engagement		0.118 (0.160)***	0.118 (0.159)***	0.119 (0.159)***
School Engagement ↔ Family Conflict			-0.154 (-0.192)***	-0.154 (-0.192)***
SE ↔ SA	-0.028 (-0.060)	0.015 (0.030)	-0.029 (-0.065)	-0.029 (-0.067)
SE ↔ CI	-0.024 (-0.128)	-0.015 (-0.074)	-0.020 (-0.104)	-0.018 (-0.099)
SA ↔ CI	0.064 (0.374)***	0.086 (0.410)***	0.066 (0.361)***	0.059 (0.341)***
	X^2 (df) 650.138 (393)*** RMSEA 0.037 CFI 0.974 TLI 0.971 WRMR 1.129	X^2 (df) 645.383 (312)*** RMSEA 0.049 CFI 0.980 TLI 0.978 WRMR 1.198	X^2 (df) 1088.899 (642)*** RMSEA 0.038 CFI 0.977 TLI 0.975 WRMR 1.183	X^2 (df) 4576.411 (3690)*** RMSEA 0.022 CFI 0.963 TLI 0.962 WRMR 1.169

* $p \le .05$ ** $p \le .01$ *** $p \le .001$

Factor Loadings for Microaggression and Ethnic Identity Effects on Self-Efficacy (SE), Substance Abuse (SA), and Criminal Intent (CI)

	MODEL E: Microaggression predicting SE, SA, and CI	MODEL F: Ethnic Identity predicting SE, SA, and CI	MODEL G: Microaggression and Ethnic Identity predicting SE, SA, and CI	MODEL D: Risk and Protective Factors and Microaggression and Ethnic Identity predicting SE, SA, and CI
	N=375	N=390	N=350	N=358
Microaggression → SE	-0.123 (-0.110)		-0.220 (-0.196)**	-0.218 (-0.196)**
Ethnic Identity → SE		0.113 (0.123)*	0.206 (0.199)**	0.149 (0.148)*
Microaggression → SA	-0.009 (-0.008)		0.041 (0.036)	-0.122 (-0.089)
Ethnic ID → SA		-0.083 (-0.088)	-0.108 (-0.103)	-0.157 (-0.127)
Microaggression → CI	-0.005 (-0.014)		0.020 (0.049)	-0.004 (-0.010)
Ethnic Identity → CI		-0.044 (-0.130)*	-0.054 (-0.145)	-0.050 (-0.121)
SA ↔ SE	-0.007 (-0.014)	-0.001 (-0.002)	0.002 (0.004)	-0.029 (-0.067)
CI ↔ SE	-0.020 (-0.110)	-0.018 (-0.094)	-0.016 (-0.088)	-0.018 (-0.099)
CI ↔ SA	0.088 (0.456)***	0.087 (0.450)***	0.084 (0.450)***	0.059 (0.341)***
Microaggression ↔ Onset				0.099 (0.191)**
Microaggression ↔ Family Conflict				0.117 (0.195)***
Microaggression ↔ School Engagement				-0.010 (-0.018)
Ethnic ID ↔ Microaggression			0.192 (0.432)***	0.197 (0.431)***
Ethnic ID ↔ Onset				0.076 (0.131)*
Ethnic ID ↔ Family Conflict				-0.007 (-0.010)
Ethnic ID ↔ Neighborhood Attachment				0.030 (0.049)
Ethnic ID ↔ School Attachment				0.114 (0.186)***
	X^2 (df) 2587.877 (1933)***	X^2 (df) 378.043 (243)***	X^2 (df) 2915.394 (2253)***	X^2 (df) 4576.411 (3690)***
	RMSEA 0.029	RMSEA 0.037	RMSEA 0.027	RMSEA 0.022
	CFI 0.962	CFI 0.980	CFI 0.963	CFI 0.963
	TLI 0.960	TLI 0.977	TLI 0.961	TLI 0.962
	WRMR 1.168	WRMR 1.000	WRMR 1.146	WRMR 1.169

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

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