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Social Integration and Mental Health Promotion: A Study of Black Adolescents

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By
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Social Integration and Mental Health Promotion: A Study of Black Adolescents

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The relationship between adolescent social contexts and their mental health has not been well investigated, particularly in the lives of Black adolescents. Within the available literature, how family, school, and religious contexts foster better mental health in adolescents is even less explored. Statistics on the prevalence of adolescent mental disorders necessitate a comprehensive approach that moves beyond an emphasis on pathology to a focus on fostering mental health. As mental health promotion has received the least amount of scientific attention, and knowledge about Black adolescent mental health is lacking, the purpose of this study is to explore whether adolescent social contexts positively impact the mental health of Black adolescents, using a Durkheimian theoretical framework.

The present study is a secondary analysis of the National Survey of American Life-Adolescent (NSAL-A), a national probability sample of 1170 African American and Caribbean Black adolescents. The NSAL-A is characterized as a complex sample survey based on the use of a stratified and clustered sample design, along with sample weights, to obtain the nationally representative sample. The study hypothesizes that family, school, and religious integration will be positively related to mental health in Black adolescents, while accounting for significant demographic variables. Mental health is defined by indicators of both positive and negative aspects of psychosocial well-being.

Structural equation modeling is used to investigate the relationships between the social integration and mental health latent variables.

The findings reveal that integration into family, school, and religion was important for Black adolescent mental health. Greater family and school integration fostered better psychosocial well-being and protected against lower psychosocial well-being. Both higher religious commitment and lower religious involvement significantly predicted better psychosocial well-being; the latter, however, was an unexpected finding. Neither religious commitment nor religious involvement was significantly related to lower psychosocial well-being. The results of the study contribute to the mental health research literature for Black adolescents and can inform the development or enhancement of social work direct practice or program level interventions targeted to this group.

This dissertation by Theda Y. Rose fulfills the dissertation requirement for the doctoral degree in social work approved by Joseph J. Shields, Ph.D., as Director, and by Karlynn BrintzenhofeSzoc, Ph.D., and Sean Joe, Ph.D., as Readers.

Joseph J. Shields, Ph.D., Director

Karlynn BrintzenhofeSzoc, Ph.D., Reader

Sean Joe, Ph.D., Reader

DEDICATION

I dedicate this work to my father, Dexter Rose, who is sorely missed, but always in my heart.

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Chapter 1: Introduction

The National Association of Social Workers (NASW, 2008) Code of Ethics asserts that the primary mission of the social work profession is to enhance human well-being. In order to implement that goal, social workers engage in practice at the individual, group, institutional, and societal levels, with a key focus on empowering those who are vulnerable. Due to the many developmental changes and challenges that an adolescent may experience, they can be considered a potentially vulnerable group.

Adolescence is a critical developmental period characterized by biological, cognitive, and psychosocial changes in young people (Crockett & Petersen, 1993). This stage in a young person's life presents opportunities for positive psychosocial growth and healthy life choices and conversely, the potential for the development of psychological difficulties and engagement in precarious behaviors (Crockett & Petersen, 1993; Petersen, 1988). Though mental, emotional, and behavioral challenges may emerge during adolescence (Kazdin, 1993) many, if not most, young people negotiate this life stage without serious difficulty (Loh & Wragg, 2004; Petersen, 1988). The literature, however, acknowledges an increase in negative social and psychological development trajectories (i.e. teen depression) for today's generation of adolescents (Small & Covalt, 2006), exemplifying the need for continued focus on the psychosocial well-being of this group. As current treatments for mental disorders in adolescence are costly (Ringel & Sturm, 2001), and underutilized (US Department of Health and Human Services [USDHHS], 1999), departing from the more prevalent pathology or deficit based model

of examination (Loh & Wragg, 2004), and focusing on positive psychological and social well-being during adolescence and subsequently factors that contribute to its development is an appropriate and timely endeavor. Additionally, studying adolescents traditionally underrepresented in research on positive psychosocial well-being, and overrepresented in groups at risk for negative well-being outcomes, such as Black adolescents, will result in an expansion of knowledge in this area as well as evidence to benefit the development of research-based interventions relevant to this group.

Adolescent Mental Health

Mental health is vital to the overall health and well-being of children and adolescents (World Health Organization [WHO], 2004). The WHO conceptualized mental health separate from mental ill-health and defined the concept as:

a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her own community. (WHO, 2007, p. 1)

Prior research is clear on the impact of better mental health versus mental ill-health for the individual and society. Individually, mental health impacts our expressive, cognitive, perceptive, relational, and coping abilities, undergirding our general health and well-being and capacity to integrate into and become productive members of society (Dwivedi & Harper, 2004). Better mental health outcomes in adolescents are characterized by greater adaptation in family, school, and community contexts, improved quality of life, and reduced symptoms of psychological disorders (Hoagwood, Jensen, Petti, & Burns, 1996; USDHHS, 1999). Positive mental health is also related to better physical health,

increased pro-social behaviors, and participation in less adverse behaviors in adolescence (Resnick, 2000). On a societal level, mental health is perceived as a positive resource contributing to asset development individually, socially, and economically (WHO, 2004). Conversely, poor mental health and well-being (i.e. depression, low self-esteem) during the adolescent years can lead to adolescent health risk behaviors (i.e. alcohol and drug use), school failure, suicide, physical ill-health, involvement in juvenile and criminal justice systems, co-occurring disorders, negative life choices, inadequate economic prospects, and mental disorders in adulthood (Canals, Domènech-Llaberia, Fernández-Ballart, & Martí-Henneberg, 2002; Hjemdal, Aune, Reinfjell, Stiles, & Friborg, 2007; Lewinsohn, Hops, Roberts, Seeley, & Andrews, 1993; Modrcin-Talbott, Pullen, Zandstra, Ehrenberger, & Muenchen, 1998; Trzesniewski et al., 2006).

The literature is replete with statistics substantiating the mental ill-health of adolescents. These statistics are of particular concern to social workers, who are the largest providers of mental health services in the United States (NASW, 2006; Scheffler & Kirby, 2003). In general, one in five adolescents experience significant symptoms of emotional distress (most commonly depression) and approximately 10% of children and adolescents suffer from emotional disorders which impair their personal, school, and family lives (Knopf, Park, & Mulye, 2008; USDHHS, 1999). Similarly, 11.6% of adolescents, ages 12-17, were reported by parents to have behavioral and mental health issues in the 2004 National Health Interview Survey (Knopf et al., 2008). The same research also reported that adolescent boys (12.3%) were more likely than girls (10.9%) to have these difficulties and low-income adolescents experienced greater difficulty than

their higher income peers (17.9% vs 8%). A study conducted by Vandivere, Gallagher, and Moore (2004) revealed that between 1997 and 2002, there was a slight increase in mental health challenges in high income adolescents and a slight decrease in low income adolescents; however, the lower income adolescents still experienced greater overall level of emotional and behavioral problems in 2002. Additionally, data from the 1995 National Survey of Adolescents showed that 16% and 19% of males and females, respectively, met the majority of the diagnostic standards for major depression, post traumatic stress disorder, or substance abuse disorder as defined by the DSM III (Kilpatrick et al., 2003). Most commonly, adolescents are succumbing to depression, anxiety, learning, and addictive disorders (Knopf et al., 2008). In addition, suicide which is the third leading cause of adolescent mortality (Center for Disease Control [CDC], 2006) may be more common among adolescents with certain mental health problems (USDHHS, 1999). The long term impact of these disorders is also critical. Kessler and colleagues (2005) report that 50% of the lifetime occurrences of mental disorders have an onset at age 14 and 75% begin by the age of 24.

Among adolescents, depression is most widely studied due to its contribution to the global disease burden (Merry, McDowell, Wild, Bir, & Cunliffe, 2004). According to Kowalenko and colleagues (2002), up to 24% of youth will have experienced at least one incident of major depressive disorder by the age of 18. Additionally, over 25% of adolescents were impacted by at least mild depressive symptoms in the National Longitudinal Study of Adolescent Health (Rushton, Forcier, & Schectman, 2002). Furthermore, approximately two million adolescents, aged 12-17, experienced a major

depressive disorder during 2008 (Substance Abuse and Mental Health Services Administration [SAMHSA], 2009), with females exhibiting a prevalence rate almost three times that of males.

Though research has well established the mental ill-health of adolescents in general, specific examination of the mental health of Black youth reveals that mental ill-health trajectories also persist in this particular subgroup. Consistent with the pattern of youth in general, Black youth on the whole are resilient; however, they are at higher risk for adverse behavioral and psychosocial outcomes, due to stressful environments created by disadvantaged social contexts such as substandard housing and inferior schools (Gibbs, 1990; Myers, 1989; Rosella & Albrecht, 1993). The root of these impoverished environments is poverty. Considerably greater proportions of African American youth as compared to white youth are living below the poverty line (DeNavas-Walt, Proctor, & Smith, 2009). Some studies focusing on depression and associated factors (i.e. sadness and hopelessness) have reported greater difficulty among low-income and non-white adolescents (Knopf et al., 2008; Rosella & Albrecht, 1993; Rushton et al., 2002; Vandivere et al., 2004). Gibbs (1990) also reported higher rates of depression among black and lower income youth, but the racial differences did not persist when age, socioeconomic status, and sex were controlled. Additionally, the suicide rates for Black youth, though still lower than their white counterparts, have evidenced a considerable increase since the 1980's (Borowsky, Ireland, & Resnick, 2001; Gibbs, 1990; Joe, Baser, Neighbors, Caldwell, & Jackson, 2009). Furthermore, many Black youth experience emotional distress in association with social problems such as school withdrawal, low

academic tracking, violence exposure, and juvenile delinquency (Fitzpatrick, 1993; Garbarino, Kostelny, & Dubrow, 1991; Gibbs, 1990; Rosella & Albrecht, 1993).

In general, the financial and social burden of adolescent mental ill-health affects both the family and society. SAMHSA reports that 100 billion dollars was spent on mental ill-health treatment in 2003 (Mark et al., 2007). Regarding young people, the RAND Corporation (Ringel & Sturm, 2001) reported that approximately 12 billion dollars per year was being spent for troubled youth, with adolescents 12-17 accounting for 60% of the total expenditure. Busch and Barry (2007) add that the financial burden on families using private insurance was significantly greater for those caring for children with mental ill-health needs versus other special needs. Additionally, other research highlighted family distress due to caring for those with serious mental illness as a social burden (Saunders, 2003).

Mental health service use in adolescence is also a cause for concern. Approximately 12% of adolescents experience a diagnosable mental disorder (Boison, 2005; Glied & Cuellar, 2003), however as many as 67% of that group never receive treatment (Boison, 2005). Additionally, Andrews, Szabo, and Burns (2002) concluded that current interventions for the treatment of depression could only alleviate 36% of the burden of depression, suggesting a vital need to address the remaining 64%. Furthermore, approximately 80% of young people that need mental ill-health treatments are not accessing suitable treatments (National Advisory Mental Health Council, 1990; USDHHS, 1999). SAMHSA (2009) also reported that only 37.7% of adolescents, ages 12-17, diagnosed with major depressive disorder during 2008 received treatment.

Additionally, possible cultural differences prevalent in help seeking behaviors may adversely impact the utilization of mental health services by adolescents (Kazdin, 1993; USDHHS, 1999).

Based on the growing cost of health care, the burden of treating mental illness in children and adolescents, the capacity of the health system to physically and fiscally meet the vast need for services, and the low utilization of treatment services by young people, an inclusion of additional methods to address adolescent mental ill-health and support positive psychosocial well-being and development needs to be considered. These additional strategies would be part of a comprehensive approach to support psychosocial well-being in children and adolescents. As evidenced by the statistics on adolescents who are challenged by mental ill-health, much is known about the state of adolescents needing relief from problems or difficulties. Prevention initiatives, which aim to forestall or limit psychological dysfunction and to encourage positive daily functioning (Kazdin, 1993; Kellam, Koretz, & Mościcki, 1999; Magyary, 2002), are a key strategy to address these mental health challenges (Kazdin, 1993; Muñoz, Mrazek, & Haggerty, 1996; Rishel, 2007). Much less is known, however, about positive mental health functioning in adolescents (Knopf et al., 2008), those teens who are optimistic, happy, prepared for life (Zaff, Calkins, Bridges, & Margie, 2002), and flourishing (Keyes, 2006). This approach requires methodological re-conceptualizations of indicators of mental health and social well-being, not yet consistently defined by research, that are more consonant with a positive definition of the construct (Magyary, 2002; Muñoz et al., 1996; Rishel, 2007; WHO, 2004).

Mental health promotion concentrates on fostering this optimal condition of well-being, inclusive of positive qualities such as self-efficacy, self-esteem, and a sense of coherence, apart from seeking relief from difficulties or disorders (Magyary, 2002; Muñoz et al., 1996; Weisz, Sandler, Durlak, & Anton, 2005). This approach is consonant with the science of positive psychology which seeks to understand how people thrive outside of the context of adversity and pathology (Seligman & Csikszentmihalyi, 2000). The main goal of the positive psychology movement is to balance the research focus of psychologists by emphasizing a critical focus on fostering human capacity, through strengthening and building positive qualities that exist within each individual, in addition to the well established disease based view of human functioning (Gable & Haidt, 2005; Seligman & Csikszentmihalyi, 2000). Additionally, positive psychology examines factors that promote the optimal development of groups and institutions (Gable & Haidt, 2005). Further research on positive psychology will not be addressed in depth here. Rather, this brief mention is intended to further ground the idea that consistent with other well established fields of inquiry, mental health promotion is a viable approach to enhancing well-being in adolescents.

Consistent with the concept of promotion, it is particularly important that specific factors which foster mental health be investigated, outside of the context of risk (Keyes, 2006; Magyary, 2002; Muñoz et al., 1996; Park, 2004). Personal, social, cultural, economic, and broader environmental factors have the potential to impact adolescent mental health (Rowling, 2006). Developmental adjustment and functioning in children and adolescents are shaped by constant interactions with others in family, peer,

community, and larger physical and cultural environments (Compas & Millstein, 1993; Knopf et al., 2008). As such, and analogous with the social work person-in-environment perspective, examination of adolescent social contexts as potential influences on their psychosocial well-being is significant to explore (Knopf et al., 2008; USDHHS, 1999). Subsequently, examining social factors that may promote the psychosocial well-being of Black adolescents, an understudied and potentially vulnerable group, will be the focus of this study.

Interest in the Problem

My professional interest in this topic is grounded in years of youth development work with adolescents of color coupled with a desire to eventually develop evidenced based promotion and prevention programs that positively impact their lives. Through my direct service work, I was able to interact with adolescents who experienced mental health challenges, such as low self-esteem, depressive symptoms, and coping issues. Entry into doctoral education allowed me to explore research related to youth mental health, especially factors that protect against adverse mental health outcomes and prevention interventions designed to address those negative outcomes. Further investigation of this topic led me to question the appropriateness of these interventions for minority youth, as well as how mental health was viewed and defined, and how to foster mental health and well-being in adolescents in addition to protecting it. While an obvious need exists for effective treatment interventions in this population, I perceived an equally important need to explore psychosocial well-being and uncover what factors are related to its development. In my review of the literature, it was apparent that both

research that examined mental health through a positive lens and literature explicating factors that promote psychosocial well-being in adolescents was limited. Subsequently, I endeavored to investigate these less explored areas. It is my hope that this research adds to the body of literature on mental health, especially as it relates to Black adolescents, a group that has been understudied and with whom I have a particular and vested interest.

Purpose of the Study

A comprehensive approach to address mental health in adolescence incorporates research on promotion, prevention, and treatment. As promotion has received the least amount of attention, and knowledge about Black adolescent mental health is lacking, the purpose of this study is to explore the impact of adolescent social contexts on the mental health of Black adolescents. Specifically, through secondary data analysis, this study will examine the relationships between adolescent integration into three major social institutions (family, school, and religion) and their mental health as defined by the presence of high self-esteem, active coping, a sense of mastery, low perceived stress, and the absence of a mental disorder.

Overall Research Question

What is the relationship between family, school, and religious integration and the mental health of Black adolescents?

Hypotheses

H1: Family integration will be positively related to the mental health of Black adolescents.

H2: School integration will be positively related to the mental health of Black adolescents.

H3: Religious integration will be positively related to the mental health of Black adolescents.

Significance of the Research to Social Work

Theory. The use of theory in the current study contributes to our understanding about the process by which family, school, and religious contexts potentially relate to the psychosocial well-being of Black adolescents. The particular theoretical approach (described in Chapter 2) was originally used with aggregate data and to emphasize the influence of social groups as a protective mechanism for adverse outcomes. Consistent with the social work focus on individual well-being in a social context, the current study recasts the theoretical framework on an individual social integration level to indicate how social contexts within which adolescents develop potentially impact their psychosocial well-being. This application of the theory broadens the framework within which it has been traditionally employed and discussed, especially in relation to an adolescent population.

Practice. Implications for practice can be evinced on both direct service and program levels. Social workers could utilize the results of the study to add to or enhance their existing strategies for individual or group mental health work with adolescents. For example, a social worker addressing self-esteem, an indicator of mental health, could utilize information obtained from the study, such as the relationship between school bonding and self-esteem to work with adolescents to develop a closer connection to

school. If family support is positively correlated with active coping, the social worker might engage the family in discussions about how to enhance the adolescent's perception of support. Additionally, the identification of factors associated with promoting mental health can inform the design and further development of evidenced based promotion, prevention, and treatment interventions designed to enhance adolescent psychosocial well-being.

Research. The study of social level factors that relate to the promotion of mental health in adolescents broadens existing knowledge about what supports their psychosocial well-being, adding to the body of knowledge in this research area. Additionally, conducting research that is more inclusive of populations typically underrepresented in mental health research, such as African American and Caribbean Black adolescents, reinforces social workers commitment to social change, diversity in research, and enhancing human well-being. Furthermore, the study can add to the reconceptualization of the definition of mental health in a more positive light as it proposes a construct of mental health that incorporates the presence of positive well-being indicators, in addition to the absence of risk factors. Finally, the study lends support to the mental health promotion focus by examining factors that contribute to positive functioning, outside of the consideration of risk.

Policy. Most policies are informed by research findings. Policies that allocate funding for the improvement of mental health in children and adolescents or the prevention of adverse behavioral and psychosocial outcomes may benefit from the information obtained from the current research. Existing policy, such as Subpart 14, Sec

5541 of the No Child Left Behind Act of 2001, makes provision for grants to improve the mental health of children through school based mental health services. Considering the specifications of grant funding, policy makers could allocate funding for promotion activities to enhance children and youths mental health. The findings from this research could also add to research investigation conducted by policy makers for the purpose of policy formulation or support the arguments promulgated by mental health advocates for the development of new policies or the renewal of current policies that benefit the mental health and well-being of children and adolescents.

Summary

Mental health promotion can be viewed as part of a comprehensive approach to address the mental health of adolescents. It provides a new focus for research as it reconceptualizes mental health from a more positive standpoint and seeks to enhance an optimal state of wellness in the lives of adolescents. Additionally, this type of research could enhance the ability of direct service practitioners, program developers, and policy makers to reduce the burden of mental ill-health in adolescents, through efforts to foster and build their mental health. Identification of social aspects of an adolescent's life that may contribute to their well-being is especially important as they develop within these contexts. Though mental ill-health is evident in adolescents in general, Black adolescents have been characterized as a particularly vulnerable group as they are disproportionately represented in groups at high risk for development of mental illnesses (i.e. low income individuals). Additionally, Black adolescents, in fact minorities in general, have been underrepresented in mental health research (Ball, Armistead, & Austin, 2003; USDHHS,

2001a). Taken together, this study attempts to add to the body of literature on mental health promotion, specifically in the lives of Black adolescents, through the examination of family, school, and religious factors that are connected to their well-being. It is important to note here that mental health is conceptualized differently (i.e. psychological functioning) throughout the literature by different researchers. For the purpose of this study, mental health is conceptualized as a state of psychosocial well-being (i.e., WHO, 2007); therefore the terms mental health and psychosocial well-being will be used interchangeably throughout future discussions, excepting specific references in the literature review.

The next chapter includes a review of the literature related to mental health, paying specific attention to how it has been defined and more recent positive conceptualizations. The chapter will also present a theoretical approach congruent with the examination of the influence of social contexts in an individual's life. Additionally, it will explicate the effect of family, school, and religious integration factors on various outcomes in adolescents. Chapter three will focus on the study's methodology providing information on the original study design, sampling, and data collection procedures as well as the measurement instruments utilized to define identified variables and the data analysis plan. Chapter four will present the findings of the data analyses and the final chapter will provide a discussion of the findings, limitations of the study, and future areas of research to be considered.

Chapter 2: Review of the Literature

This chapter reviews social factors as they relate to positive development and mental health. First, the chapter reviews conceptualizations of mental health and the promotion of psychosocial well-being. Next, it examines a theoretical perspective relevant to an understanding of how social factors potentially influence the development of positive mental health in adolescents. The chapter then explores and exhaustively reviews three social institutions important to adolescents and their relation to various outcomes in adolescence. Finally, the chapter concludes with a rationale for the study, emphasizing the importance of examining factors that may promote mental health in Black adolescents, an understudied group.

Defining Mental Health

The challenge of formulating a clear and concise definition and subsequent indicators and measurement of mental health, apart from solely the absence of disorder, continues to persist (Frank, 1953; Vega & Rumbaut, 1991). Adding to this challenge is the different meanings of mental health based on culture or ethnicity (MacDonald, 2006; WHO, 2004). This section will begin by reviewing some of the past and present definitions or ideas about mental health, leading to a broader more inclusive description of the concept. As will be evidenced, definitions have varied widely and conceptualizations have been both broad and specific.

Scholarly attempts at defining or conceptualizing the term mental health date back to at least the 1950's, when researchers were seeking to make a distinction between the concepts of mental illness and mental health. Based on the stigma attached to mental

illness, the term mental health was utilized to relate to issues of treatment and support for those dealing with mental ill-health (WHO, 2004), contributing then to the obscurity of both constructs. Additionally, mental health was used simply as a proxy for the absence of mental illness (M. B. Smith, 1959). Similarly, the “absence of illness” view of the term mental health was seen as a positive denotation and promoted by the mental hygiene movement in the U.S. as they gave special focus to prevention in mental health (Gary & Jones, 1978). Initially then, mental health was defined or conceptualized in the context of mental disorders. Later research supposed that the term mental health arose as a response to the singular focus on mental disorders and a move towards a less disorder based construct that better represented at least a satisfactory, but preferably exemplary state of well-being (Vega & Rumbaut, 1991).

Throughout the course of these discussions, various positive conceptualizations of mental health have been elucidated in literature, some of which are explicated below. In general, mental health has been examined within an affective context, inclusive of psychosocial assets such as self-esteem and mastery, feelings of happiness or satisfaction, and the capacity to cope in challenging circumstances (WHO, 2004). In 1947, the WHO promoted a definition of health that included mental well-being, stating that health is “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity (WHO, 2007). Additionally, W. E. Henry (1953) suggested that successful adaptation, or healthy coping within normal or complex situations, signifies mental health. Furthermore, Jahoda, (1958) points to six indicators of good mental health: (1) positive attitude towards self (2) sense of personal growth and development

(3) integration of positive psychological functions such that one has the ability to deal with and resolve issues (4) autonomy leading to level of independence from social influences (5) realistic perception of self and outside world and (6) adaptation to or mastery of environment.

Kazdin (1993) has argued that mental health incorporates “the absence of dysfunction in psychological, emotional, behavioral and social spheres.... optimal functioning or well-being in psychological and social domains” (p. 128). This supposition implies that both the absence of negative characteristics and the presence of positive psychosocial well-being indicators are important to a conceptualization of mental health and well-being (Donahue & Benson, 1995; Kazdin, 1993). Empirical research also supports the argument that, conceptually, absence alone does not imply well-being (Harker, 2001; Keyes, 2006). From her study of immigrant adolescents, Harker (2001) found that low levels of depression does not equate to positive well-being. Similarly, Keyes (2006) reported that adolescents who were flourishing, defined as exhibiting symptoms of both positive emotions and functioning, had both lower levels of depression and conduct issues and higher levels of psychosocial functioning (i.e. self-concept, closeness to others).

More recently, the USDHHS defined mental health as a “state of successful mental functioning, resulting in productive activities, fulfilling relationships, and the ability to adapt to change and cope with adversity” (USDHHS, 2001b, p. 37). Similarly, the WHO conceptualized mental health as:

a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her own community. (WHO, 2007, p. 1)

Both definitions underscore the more positive conceptualizations of mental health that move beyond solely the absence of illness, to incorporate aspects of effective functioning for the individual, which in turn, benefits the world around them (WHO, 2004).

The short review of definitions of mental health presented here denotes a more positive view of the term and appears to be inclusive of positive psychosocial well-being as well as the absence of negative well-being. From the definitions examined, various factors related to good mental health and well-being emerge. These include positive self-concept, mastery, successful coping and problem solving, ability to develop positive relationships, and realization of one's strengths. Other literature adds subjective well-being (Keyes, 2006; Park, 2004) emotional and spiritual resilience (Masten & Coatsworth, 1998), optimism (Scheier & Carver, 1992), and a sense of coherence (Antonovsky, 1979; WHO, 2004). The review also suggests that absence of negative functioning indicators, such as depression or conduct disorders, is a separate but important aspect of defining mental health. Overall, the goal of this discourse was not to propose one all encompassing definition of mental health but to suggest, following Kazdin (1993), that mental health should be conceptualized as both the presence of positive psychological and social well-being and the absence of psychosocial

dysfunction. This is important as the definition that one adopts will inevitably serve as a guide to the identification of indicators and methods of measurement.

Prevention and Promotion of Mental Health in Adolescents

The literature has highlighted both prevention and promotion within the field of mental health as equally important considerations in working with adolescents. Even though the terms may have distinct meanings, some research suggests that they have interrelated goals and both should be part of a comprehensive mental health approach to working with adolescent populations (Kazdin, 1993; Magyary, 2002; Weisz et al., 2005; WHO, 2004). The goal of the prevention approach in the mental health field is to reduce the occurrence of new cases of mental disorders (Muñoz et al., 1996), by addressing risk factors in entire youth populations (universal), those who share significant risks (selective), and those who display symptoms of a disorder below a clinical diagnostic criteria (indicated) (Weisz et al., 2005). When referring to prevention, the literature highlights a risk and protective framework such that protective mechanisms interact with risk factors to mitigate the effect of the risk when present (Luster, Bates, & Johnson, 2006). Mental health promotion focuses on fostering an optimal state of well-being and enhancing strengths separate from the possibility of risk reduction or the prevention of mental health problems (Dwivedi & Harper, 2004; Magyary, 2002; Weisz et al., 2005; WHO, 2004). Luster and associates (2006) refer to the term promotive, originally proposed by Sameroff (1999) to describe factors that contribute to positive outcomes regardless of low or high risk. Theoretically, both protective and promotive factors can contribute to well-being as the actual factor (i.e. family support) can help to both mitigate

the risk of a negative adolescent outcome (i.e. substance abuse) and promote a positive educational outcome (i.e. better grades). Subsequently, Weisz and colleagues (2005) locates the promotion of mental health as a first strategy in a continuum of approaches in a comprehensive prevention and treatment intervention model for youth.

Consistent with a focus on positive mental health, research that explores factors that contribute to well-being in adolescents is an important consideration (Keyes, 2006). Determinants of mental health in adolescence incorporate multiple and sometimes interacting personal, social, economic, cultural, and environmental factors (Rowling, 2006; WHO, 2004). The Victorian health promotion foundation highlights social attachments, characterized by group activity participation and supportive relationships, as a key determinant of mental health (WHO, 2004). Additionally, children and adolescents do not develop in isolation; the social contexts within which they experience life and establish social relationships shape their behavioral and emotional development (Murray & Greenberg, 2000). Subsequently, research that explores the relationship between social attachments and mental health in adolescence is a key endeavor. The following sections examine these relationships, along with other significant adolescent outcomes, beginning next with a theoretical perspective relevant to understanding this phenomenon.

Theoretical Framework

Sociologists emphasize that individuals are social beings and that their lives are immeasurably shaped by the nature of their social relationships. An adolescent is embedded in many social contexts, such as family and peers, which may positively contribute to their health and well-being or negatively impact it. As such, Durkheim's

theory of social integration is a useful framework to help examine the relationship between adolescent involvement in and attachment to social groups and their psychosocial well-being. The suppositions of Durkheim's theory originate from his classic work *Suicide* (Durkheim, 1951), which specifically examined macro level influences to determine what led to the variance in suicide rates, but generally demonstrated how social factors can help explain human behavior. His chief argument was that an individual's well-being is dependent upon the attainment of a balance between individualism and their attachment to society (Durkheim, 1951; Hughes, Sharrock, & Martin, 2003). Through his research, Durkheim discovered that weak attachments to societal institutions results in lower psychosocial well-being, consequently contributing to suicidal tendencies (Durkheim, 1951). Correspondingly, stronger attachments and shared values and goals among members of a social group, derived from the quantity and intensity of their interaction, encourages well-being (Bjarnason, 1998; Durkheim, 1951; Stark & Bainbridge, 1996; Thorlindsson & Bjarnason, 1998). Essentially, social integration incorporates two main constructs, social support and social control. Regarding social support, Durkheim stated that:

The bond that unites them with the common cause attaches them to life and the lofty goal they envisage prevents their feeling personal troubles so deeply. There is, in short, in a cohesive and animated society a constant interchange of ideas and feelings from all to each and each to all, something like a mutual moral support, which instead of throwing the individual on his own resources, leads him to share in the collective energy and supports his own when exhausted. (p. 210)

Durkheim's social integration also incorporated a sense of control or adherence to societal norms as a guide for appropriate human interaction (Durkheim, 1951; Stark & Bainbridge, 1996). According to Durkheim, "when society is strongly integrated, it holds individuals under its control, considers them at its service and thus forbids them to dispose willingly of themselves" (p. 209). This proposition suggests that the greater the attachment to the social group, the more the individual will conform to the norms or rules within the group, not only as a guide for their subsequent behavior, but also to sustain the affective ties of those important relationships (Stark & Bainbridge, 1996).

Durkheim's discourse on family integration exemplified his broader social integration work. Examining marital status, he found that married people with children are the most integrated group, over married couples with no children, or unmarried people, and subsequently are less likely to engage in suicidal behavior. Consistent with the theory's postulations, Durkheim suggested that the lower inclination towards suicide is due to their membership in family groups, where there are shared values and beliefs, strong attachments, consistency of interaction, and supportive relations (Durkheim, 1951; Hughes et al., 2003; Thorlindsson & Bjarnason, 1998). His conclusions of religious life mirror these same findings. Durkheim maintains that religion creates social integration due to its ability to foster a more intensive collective life. Based on an examination of religious affiliation, he reported that rates of suicide were lower for Catholics than for Protestants and Jews, due mainly to the higher degree of integration in Catholic communities (Durkheim, 1951).

Durkheim's theory of social integration has been extended and recast by numerous contemporary theorists, examining various outcomes in addition to suicide. Two examples from well-known research are the work of Hirschi (1969) in relation to delinquency and Thoits (1983) in relation to psychological well-being. Hirschi's control theory builds on Durkheim's ideas about the social bond. The theory postulates that individuals, by nature, have the proclivity towards deviant behavior, but their bonds to various institutions helps to mitigate this behavior. Four main elements characterize this bond: (1) attachment (affective ties to significant others); (2) commitment (investment in conventional activities); (3) involvement (engagement in conventional activities) and (4) belief (acceptance of the moral validity of conventional norms) (Hirschi, 1969). Hirschi highlighted school as an important social context in adolescence, for example, arguing that adolescents with higher levels of attachment, commitment, involvement, and belief, in relation to school in general, school activities, and education overall, should exhibit less of a propensity towards delinquent behavior. Thoits's work on multiple identities and psychological well-being, which examined reciprocal role relations that led to the development and maintenance of identities within a social group, also builds on Durkheimian ideas about social groups. Whereas Durkheim related the attachment of the individual to the group as key to their sense of certainty, purpose, and well-being, Thoits proposed that it is an individual's role identity, formed within the group, which contributes to their sense of meaning and purpose (Thoits, 1983).

Casting Durkheim's theory on an individual social integration level, it can be postulated that cohesive group arrangements, developed through positive and consistent

exchanges among members, encourage an atmosphere of support and constructive attachments among group members, consequently leading to better individual psychosocial well-being outcomes. Conversely, lack of these attachments or weak levels of social integration among group members can be the basis for disconnection, even despair, leading to negative individual psychosocial well-being outcomes. These postulations will be explored next in regards to three important social contexts in the lives of adolescents – family, school, and religion. Specifically, Durkheim’s social integration theory will be employed as a framework to examine how adolescent integration into family, school, and religion may impact their psychosocial well-being.

Family

Family has been indicated as the primary socialization agent and a key form of social capital for children and adolescents. From birth, children growing up in traditional or non-traditional family settings are taught the norms, values, and expectations of that particular family unit. Parents and other familial adults are expected to provide care, emotional and physical support, and guidance and direction for those that are a part of their household (Wilson, 1989). The literature suggests that support from others, ranging from the emotional to the tangible, can directly or indirectly affect health and well-being (Klineberg et al., 2006), possibly being a vital resource in managing stressful or challenging situations (Aydin & Oztutuncu, 2001). Additionally, researchers postulate that family support, a cohesive family atmosphere, and being valued and accepted by others, may promote better psychosocial outcomes, such as higher self esteem, efficacy, and self-confidence, and protect the adolescent from mental ill-health (Aydin &

Oztutuncu, 2001; Harker, 2001; Stice, Ragan, & Randall, 2004). Literature on family relationships echo this sentiment, highlighting the critical role of close relationships with parents in facilitating a sense of security, healthy decision-making, better coping skills, and reduction in adolescent problem behavior (Dornbusch, Erickson, Laird, & Wong, 2001; Harker, 2001). Literature also suggests that teens whose parents are more involved and supportive may be more likely to adhere to their parents guidance and direction, thereby making decisions that are more acceptable and reflective of the norms and expectations of the family group (Crosnoe, Erickson, & Dornbusch, 2002; Hirschi & Stark, 1969).

For children and adolescents, the extended family is also a key resource for emotional and physical support. Within Black communities, the extended structure, composed of nuclear, other related, and even fictive kin, is a significant family arrangement, the roots of which dates back to slavery when Black family units were disrupted and in most cases destroyed (Wilson, 1989). More recently, based on changing family structures and economic factors, noticeably more prevalent in Black communities, the extended family persists as a viable network for the provision of tangible and intangible support, access to coping mechanisms, and the development and exchange of essential resources (Wilson, 1989). Consequently, Black adolescents, as members of this extended family structure, may directly or indirectly benefit from tangible resources and emotional support as they mature.

Empirical explorations of the effects of family relationships on the lives of children and adolescents have utilized various measures, including parental involvement,

parent-adolescent conflict, parental warmth, and parent support and closeness

(Miller, Benson, & Galbraith, 2001). For this study, family integration is conceptualized as the degree to which Black adolescents are involved with and attached to their primary and extended family members. Accordingly, the following review will highlight studies which have examined the effects of parental and kinship support, closeness, and warmth which are consonant with the concept of attachment and in line with the social support aspect of Durkheim's theory. Parental support and closeness have been evidenced as mitigating the effects of negative emotional and behavioral outcomes, and promoting better psychosocial outcomes in adolescents (Aydin & Oztutuncu, 2001; Harker, 2001).

The majority of the literature in this area and therefore most of studies reviewed investigated the protective influence of family support and connectedness against negative behavioral outcomes, such as delinquency, and substance use. Other studies have explored the mitigating influence of family constructs on the negative emotional well-being of adolescents. The research on the contributions of family to healthy psychosocial well-being in adolescents has been limited. The majority of studies, unless otherwise noted, were cross sectional or correlational.

Risk behaviors. Research has revealed moderate protective influences of the effects of family support, closeness and warmth on risky behavior in adolescents. Bean, Barber, and Crane (2006) report a negative relationship between paternal support and delinquency in a sample of African American adolescents. Similarly, caring and trust was correlated with decreased delinquency in a general sample of adolescents (Cernkovich & Giordano, 1987). Additionally, Dornbusch and associates (2001) found

that parent and adolescent reports of closeness were inversely related to overall occurrence and intensity (parent report) and initiation (adolescent report) of adolescent delinquency in more economically deprived communities in their longitudinal analysis. The same researchers also reported that parental and adolescent report of closeness was negatively associated with overall occurrence and initiation (both parent and adolescent reports) and intensity (adolescent report) of delinquency in less economically deprived communities. Furthermore, greater parental school support was found to reduce the likelihood of engaging in delinquent behavior for both youth in school and school dropouts (Davalos, Chavez, & Guardiola, 2005). In contrast, Crosnoe and others (2002) found no relationship between an adolescent's view of their parents as being loving and responsive and engagement in delinquent acts in their longitudinal analysis.

Both Dornbusch and associates (2001) and Resnick and colleagues (1997) found significant negative relationships between parent connectedness and violence in the same national probability sample of adolescents. Dornbusch and associates reported a significant inverse association between parental, but not adolescent, report of closeness and overall occurrence and intensity of delinquency in more economically deprived communities and initiation of delinquent acts in less deprived communities. Whereas, Resnick and colleagues found that parent-family connectedness had small correlations with interpersonal violence.

Examination of alcohol and substance use outcomes revealed a similar trend. Crosnoe and others (2002) established a significant moderating effect of adolescent's view of their parents as being loving and responsive on the relationship between risk of

substance use and actual substance use. The researcher found that the positive adolescent-parent relationship mitigated the risk of alcohol and tobacco use for boys and drug use for girls, within the context of peers who were engaging in these behaviors. Likewise, high levels of parent-family connectedness was related to lower incidences of cigarette, alcohol, or marijuana use in younger and older adolescents (Resnick et al., 1997). Moreover, Dornbusch and colleagues (2001) reported significant relationships between family connectedness, as reported by the parent, and the overall occurrence, intensity, and initiation of cigarette use, and the intensity of alcohol use in more economically deprived communities. The same research also revealed significant effects of both adolescent and parent reported connectedness for the three substances in less economically deprived communities. Parent reported connectedness was negatively associated with the overall occurrence, intensity, and initiation of cigarette and marijuana use and the intensity of alcohol use, whereas adolescent reported connectedness was negatively related to the overall occurrence and initiation of alcohol and marijuana use (Dornbusch et al., 2001). Additionally, perception of low maternal connectedness was associated with higher substance use in adolescents (Ackard, Neumark-Sztainer, Story, & Perry, 2006). However, Benda and Corwyn (2000) found no significant relationships between parental attachment (including closeness) and drug use in their adolescent high school sample.

Studies of adolescent sexual behavior also explicated the positive effects of parent support and connectedness. Research findings synthesized by B. C. Miller and colleagues (2001) revealed correlations between parent support and connectedness and

reduced risk of adolescent pregnancy, through later onset of sexual activity, use of protection, and less sexual relationships. This positive affect was also evidenced in the Resnick et al. (1997) study which reported later onset of sexual activity, but not a reduced history of pregnancy, for young and older adolescents who were more connected to their family.

Psychological functioning. Family/parent support and connectedness was also strongly related to depression, anxiety, other emotional and behavioral adjustment problems, and suicide attempts in adolescence. The majority of studies examined the relationship between parent support and positive family connections to depression, depressed mood, and other internalizing problems. Overall, the results were consistent with the denotation of positive family relations as a protective influence in adolescents. Increased paternal, but not maternal, support and overall parental support, was predictive of lower levels of depression in African American adolescents (Bean et al., 2006) and depressive symptoms and onset of major depression in adolescent girls (Stice et al., 2004), respectively. The literature showed that family support was significantly related to lower levels of depression (Aseltine, Gore, & Colten, 1994) and negative perception of family support was strongly associated with greater emotional and behavioral problems (Garnefski & Diekstra, 1996). Additionally, lower family support was related to depression, anxiety, loneliness, and low self-esteem in younger African American adolescents (Margolin, 2006) and increased likelihood of depressive symptoms and psychological distress in a sample of London adolescents (Klineberg et al., 2006). Moreover, Harker (2001) reported that greater perception of overall social support,

inclusive of family support, protected against increased levels of depression in first-generation immigrant adolescents. Finally, kinship support was negatively correlated to anxiety symptoms in younger African American adolescents (McCabe, Clark, & Barnett, 1999).

Closeness to parents and parent-child and parent-family connectedness were also predictive of depression, emotional distress, low self-esteem, body dissatisfaction, and unhealthy weight control in adolescents. Harker (2001) reported a negative relationship between closeness to parents and depression in first generation immigrants and Resnick et al. (1997) documented an inverse relationship between parent-family connectedness and emotional distress in a general sample of adolescents. Similarly, Ackard and others (2006) noted positive associations between lower parent-child connectedness and depressive mood, low-self esteem, unhealthy weight control practices, and body dissatisfaction.

Comparable measures such as parental warmth and acceptance supported the preventive influence of positive family connections. Both Greenberger and Chen (1996) and McCabe and associates (1999) reported inverse relationships between parental warmth and depressed mood in younger European and Asian Americans and anxious behavior in young African American adolescents, respectively. Additionally, family relationships that are warm and supportive predicted less depression in Turkish adolescents (Aydin & Oztutuncu, 2001) and lower dysphoria in Latino adolescents (Locke & Newcomb, 2005).

Using the same national probability sample of adolescents, Borowsky et al. (2001) and Resnick et al. (1997) similarly reported protective effects of parent-family connectedness on suicide attempts and suicidal behavior and thoughts, respectively. Likewise, Ackard and others (2006) documented positive correlations between low parental connectedness and suicide attempts. Additionally, family integration, inclusive of family mental and material support, was related to lower anomie and suicidality in a nationally representative sample of high school adolescents (Thorlindsson & Bjarnason, 1998). Family integration, specifically parent attachment, was also significantly related to lower suicide attempts (Maimon & Kuhl, 2008). Furthermore, lack of care and understanding from parents was associated with suicide attempts for female and male (lack of care only) adolescents (Watt & Sharp, 2001).

Psychosocial well-being. A few studies examined the effects of family support and closeness on various aspects of psychosocial well-being in adolescents. Greater parental attachment was found to enhance self-esteem in rural adolescents (Benda & Corwyn, 2000), self-esteem, coping, and social competence in New Zealand adolescents (Paterson, Pryor, & Field, 1995), and self-perceived strengths in a second sample of New Zealand adolescents (Raja, McGee, & Stanton, 1992). Additionally, Wenk, Hardesty, Morgan, and Blair (1994) reported a positive relationship between emotional involvement, specifically closeness to parents and receiving love from parents, and self-esteem, life satisfaction, and mental health in their longitudinal analysis.

Parental support, closeness, and caring were also relevant to broader well-being indicators in adolescence. Harker (2001) documented a positive relationship between

parental support and closeness and overall well-being in first generation immigrant adolescents. Similarly, Demo and Acock (1996) found that maternal support promoted better global well-being and academic performance in adolescents in first married families and both global well-being and socio-emotional adjustment in adolescents living in step families. The same study also revealed a positive relationship between frequency of interaction with mom and socio-emotional adjustment in both first-married and stepfamilies. Additionally, parental support and caring was related to greater social coherence in Icelandic adolescents (Bjarnason, 1998) and career related parent emotional support predicted career self-efficacy in a sample of Black adolescents, with stronger effects evidenced for girls than for boys (Alliman-Brissett, Turner, & Skovholt, 2004).

School

Another key socializing agent in the lives of adolescents is school. Simons-Morton, Crump, Haynie, and Saylor (1999) emphasizes this point, highlighting school as the most important socializing influence after family. This supposition is supported by the that fact that generally, 98% of all 11-17 year olds were enrolled in public and private junior high or high schools in 2003 (US Department of Education Statistics, NCES, 2007). Additionally, students spend a significant portion of their day involved in school life including academic, social, and extracurricular activities. Johnson, Crosnoe, and Elder (2001) posit a reciprocal influence of the relationship between the behavioral and the psychological aspects of school and an ensuing effect on adolescent outcomes (i.e. academic achievement), but emphasize the importance of the direct effect of each aspect separately on adolescent outcomes. Consequently, both behavioral and affective

components of a student's school experience are important to consider when examining the relationship between school-related connective factors and adolescent outcomes (Finn, 1989; Johnson et al., 2001; Morse, Anderson, Christenson, & Lehr, 2004). Therefore, and for the purpose of this study, school integration is conceptualized as the degree to which an adolescent is involved in and attached to school.

School-based extracurricular participation represents an important behavioral component of school integration. Broadly, school-based extracurricular participation has been related to enhanced academic attitudes and outcomes, less delinquent behavior, higher self-esteem and locus of control, better race relations, and later civic and political involvement (Holland & Andre, 1987; Morse et al., 2004). Additionally, the amount of involvement, in terms of number of activities, has been postulated to correlate positively with an adolescent's character and social skills (Holland & Andre, 1987). In the context of adolescent development, it is proposed that involvement in structured, productive activities promotes pro-social behavior and a sense of group identification, fosters and enhances new skills and interests, and provides networking and civic opportunities, resulting in present and future academic and career successes, protection against risk-related actions (Eccles, Barber, Stone, & Hunt, 2003; Fredricks & Eccles, 2005; Zaff, Moore, Papillo, & Williams, 2003), and stronger school bonds (Davalos, Chavez, & Guardiola, 1999). Furthermore, engagement in extracurricular activities may provide adolescents a positive medium for self-expression and identity development (Feldman & Matjasko, 2005).

Both Finn (1989) and Morse et al. (2004) agree that participation in school activities is an essential and manipulable aspect of student school involvement, which may positively impact school identification and reduce the propensity of an adolescent to drop out of school. Moreover, Jordan (1999) supposes that participation in extracurricular activities, like sports, serves to reinforce school norms and values, advance educational goals, and elevate adolescents' perception of school connectedness, thereby positively impacting school engagement. Tracy and Erkut (2002) adds that participation in sports can be perceived as conforming to a valued and rewarded school activity, strengthening the adolescent's connection to school and positively affecting their sense of self-worth. Additionally, participation in school-related activities also affords teens the opportunity to develop meaningful relationships with adults and peers, in a positive setting outside of the classroom (Feldman & Matjasko, 2005; Fredricks & Eccles, 2005; Mahoney, Cairns, & Farmer, 2003), which may promote shared enjoyment of the activity and reduce student withdrawal (Jordan, 1999). Generally, extracurricular school activity participation serves as a protective mechanism for risk related behaviors and a promotive context for positive youth outcomes (Eccles et al., 2003).

School bonding is a central element of the affective domain of school integration. The literature utilizes the words school bonding, attachment and connectedness interchangeably at times. As it is not the intent of this study to differentiate between concepts, the term school bonding, which is a broader construct, inclusive of other measures of a student's relationship to school such as attachment (Libbey, 2004), will be used to represent students affective connections to school. School bonding is perceived

as an informal agent of control serving to reduce problem behavior through commitment to school decreed values and acceptable behavior (Hirschi, 1969). Similarly, Catalano, Haggerty, Oesterle, Fleming, and Hawkins (2004) suppose that when an adolescent is bonded to school, their behavior becomes more consistent with the norms and values of the school; positive school environments and value expressions through teachers, for example, will lead to more beneficial outcomes for students, whereas as negative norms and expectations may contribute to more problem behavior. Furthermore, aspects of bonding to school, such as positive relationships with teachers and other school staff, may provide a supportive context within which adolescents can thrive (Murray & Greenberg, 2000), and develop positive coping and adaptive mechanisms (Resnick et al., 1997). In general, positive school bonds and connections are suggested to promote academic achievement, and other positive behaviors and reduce the likelihood of antisocial and health risk behaviors (Bonny, Britto, Klostermann, Hornung, & Slap, 2000; Maddox & Prinz, 2003; Simons-Morton et al., 1999). The consistent theme is that as an adolescent becomes more bonded or connected to school, their propensity towards problem behavior will decrease, and their tendency to engage in healthy decision making and more prudent behaviors will increase. Additionally, these positive attachments may foster better psychosocial outcomes.

The majority of studies exploring the relationship between school and adolescent outcomes examined the protective influence of both school participation in extracurricular activities and school bonding/connectedness against negative behavioral outcomes, such as delinquency, and substance use. Similar to the research on the family

context, the research on the contributions of both aspects of school in relation to healthy psychosocial well-being in adolescents is limited and most of the studies, unless otherwise noted, were cross sectional or correlation.

Risk behaviors. Studies examining the effect of school delinquency, crime, violence, and overall problem behaviors reported mainly consistent results. More school bonding among students was related to less delinquency in younger adolescents (Murray & Greenberg, 2000) and long-term from middle adolescence into young adulthood (Catalano et al., 2004). Greater school connectedness was also related to lower initiation of delinquency in adolescents from economically disadvantaged communities (Dornbusch et al., 2001). In contrast, school attachment was only inversely related to delinquency for black males in a neighborhood sample of adolescents (Cernkovich & Giordano, 1992). Higher levels of school connectedness were related to less violence (Resnick et al., 1997) and less occurrence of violence in students from economically disadvantaged communities (Dornbusch et al., 2001). School bonding in middle and high school was also related to less violence in young adulthood (Catalano et al., 2004). It was similarly related to less crime among 18 year olds (Hawkins, Guo, Hill, Battin-Pearson, & Abbott, 2001) and less problem behavior in middle school adolescents (Simons-Morton et al., 1999). Additionally, Mahoney (2000) reported that school extracurricular activity participation correlated with reduced criminal arrest in young adulthood, in his longitudinal analysis.

Research on alcohol and substance abuse reveal mixed results, especially for alcohol use in teenagers. Perry-Burney and Takyi (2002) reported an inverse relationship

between high school senior girl's competence in sports and alcohol and drug use.

In contrast, participation in team sports was related to higher incidences of alcohol use in a general sample of high school adolescents, both during high school (Fredricks & Eccles, 2005) and into young adulthood (Barber, Eccles, & Stone, 2001; Eccles & Barber, 1999). Participation in performing arts activities was related to less alcohol use in general (Fredricks & Eccles, 2005) and for males in 10th and 12th grades (Eccles & Barber, 1999). Conversely, performing arts participation predicted greater use of alcohol between 18 and 21 in a longitudinal analysis (Barber et al., 2001). Additionally, participation in academic clubs was related to lower alcohol use (Fredricks & Eccles, 2005). Furthermore, school involvement in the form of student government and pep clubs was unrelated to alcohol use, but Barber et al. (2001) reported that female participants used marijuana more frequently than female non-participants.

School bonding, attachment, and connectedness served as protective mechanisms for alcohol and drug use. Students that were more attached to school were less likely to use marijuana (Burkett, 1977) and other drugs (Regnerus & Elder, 2003a). Low school connectedness was associated with cigarette use (Bonny et al., 2000), while greater school connectedness was associated with less recurrent cigarette, marijuana, or alcohol use across a sample of younger and older adolescents (Resnick et al., 1997). Similarly, adolescent report of school connectedness was related to lower initiation of cigarette and marijuana use and overall occurrence of marijuana use in both less economically deprived and more economically disadvantaged communities (Dornbusch et al., 2001). The same research also revealed an inverse relationship between school connectedness

and the overall occurrence and intensity of cigarette use in more economically advantaged communities. K. L. Henry, Swaim, and Slater (2005) reported an association between greater school bonding and lower cigarette, marijuana, and alcohol use as well as a positive relationship between school bonding and beliefs about the risk of use on future goals. Similarly, using longitudinal analyses, both Hawkins et al. (2001) and Catalano et al. (2004) documented long term effects of school bonding in middle school and high school on less substance use at age 18.

Both school participation and school attachment influenced sexual risk-taking and pregnancy rates in an inverse direction (Kirby, 2002). Additionally, gender effects of athletic participation were documented by K. E. Miller, Sabo, Farrell, Barnes, and Melnick (1998). The researchers found that female athletes were significantly less involved in sexual activity and male athletes were slightly (but not significantly) more involved in sexual activity than their respective counterparts. Furthermore, school attachment (Bearman & Brückner, 2001) and school connectedness (Resnick et al., 1997) were found to delay initiation of sexual activity among younger and older adolescents. Similarly, school bonding measured during middle and late adolescence was inversely related to sexual activity at age 18 (Hawkins et al., 2001), pregnancy rates among young adult females, and rates of sexually transmitted diseases among single African American young adult females (Catalano et al., 2004). Higher rates of condom use, associated with greater school bonding in adolescence, were also documented for single African American young adult females in the Catalano et al. (2004) study.

Psychological functioning and health. General extracurricular activity

participation (sports and school involvement activities), sports participation, and school bonding in high school were related to lower depression in high school adolescents (Fredricks & Eccles, 2005), lower social isolation in young adulthood (Barber et al., 2001), and lower depression, anxiety, and conduct problems in younger adolescents (Murray & Greenberg, 2000), respectively. Conversely, school activity involvement was unrelated to internalizing disorders (i.e. anxiety, depression) in a sample of young African American adolescents (Margolin, 2006). Although Gore, Farrell, and Gordon (2001) found a significant relationship between team sports involvement and depressed mood, the results became statistically non-significant when other variables, like parent support, were introduced. The same research did report a significant interaction effect, such that female involvement in sports protected against depressed mood for those who were doing poorly in school. Additionally, while school connectedness and school integration (specifically school attachment) was significantly related to lower levels of suicidal thought and behavior (Resnick et al., 1997) and suicide attempts (Maimon & Kuhl, 2008) respectively, performing arts participation predicted more incidences of suicide attempts and counseling involvement between adolescence and young adulthood (Barber et al., 2001). Furthermore, low school connectedness was associated with more visits to the school nurse and diminishing health in younger and older adolescents (Bonny et al., 2000).

Education and career. Many studies have examined the effect of extracurricular participation and school bonding and connectedness on education outcomes such as

academic achievement, college attendance, high school drop-out, and academic competence. Research showed that certain school-based extracurricular activities (athletic and non-athletic) significantly reduced a student's probability of dropping out within a Mexican American and white non-Hispanic sample (Davalos et al., 1999; McNeal Jr, 1995) and a general sample of high school adolescents (McNeal Jr, 1995). Additionally, Mahoney (2000) documented a relationship between participation in school-based extracurricular activities during grades 6-10 and decreased incidence of school drop-out in adolescence in a longitudinal analysis. Furthermore, total amount of extracurricular participation was related to reduced behavioral issues in school (Marsh & Kleitman, 2002)

Better academic outcomes (i.e. grade point average, overall achievement) were promoted by participation in team sports (Jordan, 1999; Perry-Burney & Takyi, 2002). Longitudinal analyses supported these findings revealing a relationship between higher academic achievement in young adulthood and any school-based extracurricular activity participation during high school (Zaff et al., 2003); better grade point averages (GPA's) in 12th grade and 10th grade extracurricular activity participation (Eccles & Barber, 1999); and higher grades and more time spent on homework in the 12th grade and total amount of school-based extracurricular activity participation in both 10th and 12th grades (Marsh & Kleitman, 2002). Similar results prevailed for school bonding effects. School attachment helped low-risk adolescents to circumvent poorer school grades and academic problems (Regnerus & Elder, 2003a). Likewise, better academic outcomes were reported for older adolescents (18 year olds) based on higher bonding scores observed in both

junior high and high school (Catalano et al., 2004; Hawkins et al., 2001).

Conversely, Marsh and Kleitman (2002) found that total amount of extracurricular participation was related to lower standardized tests scores in high school.

Research, documented through analyses of longitudinal data, evinced positive effects of student participation in school-based extracurricular activities during the middle and high school and better educational trajectories. Higher incidence of attending college was correlated with consistent participation in any extracurricular activity in early and middle adolescence (Maddox & Prinz, 2003), total amount of extracurricular participation in 10th and 12th grades (Marsh & Kleitman, 2002), and participation in sports, performing arts, academic clubs, and other extracurricular activities (i.e. student government) (Eccles & Barber, 1999). Additionally, greater desire to attend college in girls (Perry-Burney & Takyi, 2002) and more university applications completed (Marsh & Kleitman, 2002) was associated with participation in team sports and total amount of extracurricular participation in 10th and 12th grades, respectively. Furthermore, extracurricular participation in high school was related to more years of schooling and increased probability of college graduation (Barber et al., 2001).

Other school related outcomes were also evidenced. Participation in team sports, performing arts, and other school extracurricular activities (i.e. pep club) was related to liking school more (Eccles & Barber, 1999), greater school satisfaction (Gilman, 2001), better attitudes towards school (sports only), and greater school belongingness (sports and other school activities) (Fredricks & Eccles, 2005). Similarly, Simons-Morton and colleagues (1999) reported positive correlations between bonding and school adjustment

as well as bonding and perception of school environment. Additionally, team sports involvement and increased school bonding promoted academic self-confidence (Jordan, 1999) and school competence (Murray & Greenberg, 2000), respectively. Extracurricular participation during the secondary school years also positively influenced older adolescent educational and occupational aspirations (Mahoney et al., 2003; Marsh & Kleitman, 2002), young adult educational and occupational aspirations (Marsh & Kleitman, 2002), and positive occupational outcomes (sports only) (Barber et al., 2001).

Peer relationships. Both school bonding and extracurricular participation influenced the peer group context. Those with greater school bonds had better peer relationships (Murray & Greenberg, 2000), while school-based extracurricular participation was connected to more pro-social peers and better views of ones peer group (Fredricks & Eccles, 2005).

Pro-social behavior. Students who participated in extracurricular activities in high school were more inclined to exhibit pro-social behaviors both during high school (E. S. Smith, 1999) and in young adulthood (E. S. Smith, 1999; Zaff et al., 2003). Additionally, senior year extracurricular activity was reported to significantly impact voting and other political activities in young adulthood (E. S. Smith, 1999).

Psychosocial well-being. Very few studies examined the relationships between school-based extracurricular activity participation and school bonding on self-esteem, competence, or other well-being outcomes. Research revealed positive associations between participation in team sports and self-esteem (Erkut & Tracy, 2002; Perry-Burney & Takyi, 2002; Tracy & Erkut, 2002), total amount of extracurricular activity

involvement and self-esteem (Marsh & Kleitman, 2002), team sports and self-concept (Jordan, 1999), and school involvement activities (i.e. cheerleading) and self-worth (Fredricks & Eccles, 2005). Interestingly, both the Erkut and Tracy (2002) and Tracy and Erkut (2002) studies documented a mediating influence of school attachment on the relationship between participation in team sports and self-esteem for various ethnic subgroups of adolescents.

Additionally, higher levels of total amount of extracurricular activity participation during 10th and 12th grade were associated with 12th grade locus of control (Marsh & Kleitman, 2002; E. S. Smith, 1999). Furthermore, consistent activity participation in high school related to increased interpersonal competence across adolescence (Mahoney et al., 2003) and school bonding was positively related to general social competence in younger adolescents (Murray & Greenberg, 2000).

Religion

Research offers conceptual explanations of the effects of religious involvement on the lives of its participants. In the context of adolescent development, religion has been cited as a significant agent of socialization promoting pro-social values and avoidance of unhealthy behavior (Donahue & Benson, 1995; Wallace Jr. & Forman, 1998). Religious involvement can afford youth opportunities to develop non-familial social ties and caring relationships with adults who serve as positive role models, and provide mentoring and emotional and physical support (Donahue & Benson, 1995; Koenig, 2001; Milot & Ludden, 2009; Regnerus, Smith, & Fritsch, 2003). Through religious organizations, youth may also connect with positive peers (Donahue & Benson, 1995) and gain access

to community resources that can support their personal growth and development (C. Smith, 2003; Wagener, Furrow, King, Leffert, & Benson, 2003). In addition, Taylor, Mattis, and Chatters (1999) suggest that African American religious beliefs and practices have historically provided a framework to guide understanding and action in response to various life situations. Furthermore, it has been theorized that through religious beliefs and practices, adolescents have access to coping mechanisms that assist them in successfully negotiating stressful or challenging situations on a personal or interpersonal level (Ellison, 1991; C. Smith, 2003) leading in turn to more positive outcomes and a healthier lifestyle. These beliefs and practices include prayer, group discussions, meditation, and direct application of scriptural understandings (C. Smith, 2003).

The literature suggests that further research on the religious lives of adolescents and the effect of religious involvement in adolescence is a worthwhile and fruitful endeavor (C. Smith, Denton, Faris, & Regnerus, 2002), especially in light of the number of adolescents who profess some level of religious involvement. The majority of American teens are connected to some religious group (Billy, Brewster, & Grady, 1994; C. Smith et al., 2002). Although, on average, religious involvement varies and tends to decline over the course of adolescence (Donahue & Benson, 1995; Markstrom, 1999; Regnerus, 2003a; C. Smith et al., 2002), statistics from Gallup surveys for American adolescents show that 95% believe in God, 80% see religion as fairly important, 49% attend religious services weekly, and 68% attend because they want to attend (C. Smith et al., 2002; Wallace Jr. & Forman, 1998). From their analysis of three National surveys of American youth, C. Smith et al. (2002) report that approximately 50% participate in

religious youth groups, and 54% of 8th, 10th and 12th graders combined attend religious services at least one to two times per month. Statistics also differentiate adolescent religious involvement by gender, race, and region. In general, African American and female adolescents view religion as more important and exhibit more frequent attendance and participation (Donahue & Benson, 1995; Markstrom, 1999; Regnerus, 2003a; C. Smith et al., 2002; Wallace Jr. & Forman, 1998). Additionally, C. Smith and others (2002) report that adolescents from the south are more actively involved than their other regional counterparts.

Religion has been indicated both as a protective resource for negative functioning and behavior as well as a promotive source of psychosocial well-being and positive developmental outcomes (Ball et al., 2003; Donahue & Benson, 1995; King & Furrow, 2004; Milot & Ludden, 2009; Wagener et al., 2003; Wallace Jr. & Forman, 1998). Researchers studying religion commonly conceptualize the institution as a social control mechanism (Regnerus, 2003a; Wallace Jr. & Forman, 1998), consequently deterring its participants from engaging in risky or deviant behavior. Within this conceptualization, individuals learn to conform to the values and norms of acceptable behavior, and moral standards of the religious organization or group. Through regular participation, communication, and interaction among group members these values, norms, and standards are reinforced, thereby reducing risk of opportunity and proclivity to engage in problem behaviors, and protecting against negative psychological functioning (Milot & Ludden, 2009; Regnerus, 2003a). Religion has also been perceived as contributing to the promotion of well-being, positive development, and pro-social behaviors in adolescents.

Specifically, participation in religious organizations can promote a sense of shared values and beliefs, positive social connections, and an exchange of caring and support (Milot & Ludden, 2009; Schnittker, 2001). This in turn may foster coping mechanisms that help adolescents successfully handle typical as well as difficult life experiences, and provide a framework within which they are encouraged and motivated to make choices that result in more beneficial or successful outcomes (Milot & Ludden, 2009; Regnerus, 2003a; C. Smith, 2003).

Empirical studies have utilized various dimensions of religious involvement to examine the relationship between religion and adolescent outcomes. Taylor et al. (1999) proposed three categories of religious involvement based on their research within African American adult populations. These dimensions include organizational participation (i.e. service attendance), non-organizational participation (i.e. prayer), and subjective religiosity (importance of religion). The majority of studies focusing on adolescents have utilized one or more of these categories separately or in a created scale to operationalize religious involvement. For this study, religious integration is conceptualized as the degree to which adolescents are involved in and connected to a religious institution. As such, the following review will highlight the effects of organizational participation, including church attendance, other church related activities, commitment to attendance and activities, and religious support on various outcomes in adolescence. Research that utilized organizational participation in a constructed scale with other religion variables will also be included in the review.

Like family and school, the majority of studies conducted on the relationship between religion and adolescent outcomes have focused on religion as a protective influence, serving to reduce the probability that an adolescent will engage in risky or deviant behavior. Many studies have also focused on the positive effects of religion on education. Compared to an adult population, fewer studies have been conducted on religions protective effect against negative psychological functioning in adolescents. Additionally, the research on its promotive effect on healthy adolescent development and psychosocial well-being has been limited. Most studies reviewed were cross-sectional or correlational unless otherwise noted.

Risk behaviors. Research on risk behaviors revealed a significant protective effect of organizational religious participation on these adverse outcomes. Explorations of the effect of religious involvement on delinquency have generated mixed outcomes. The most well-known and cited study of religion and delinquency reported no direct or indirect relationship between church attendance and delinquent behavior as indicated by larceny, theft, vandalism, and assault (Hirschi & Stark, 1969). In later research, Stark (1996) amended the proposed hypothesis of an inverse association between religion and delinquency to include the notion that the association will only be evident in a high religious social context. From his subsequent study utilizing a national sample of adolescents, Stark found strong negative correlations between church attendance and delinquency, nationally and in regions where there is a higher level of religiosity (Stark, 1996).

Using longitudinal data, Regnerus (2003b) found a negative relationship between weekly attendance and theft as well as minor delinquency, without regard to group level religious measures as proposed by Stark (1996). An inverse relationship between religion and delinquency was also reported by L. D. Pearce and Haynie (2004) using the same nationally representative longitudinal sample of adolescents; but this relationship was moderated by family context. Findings showed that when adolescents and their mothers were similarly religious, specifically at the highest levels of religiosity, they were less likely to be delinquent. However, when an adolescent's level of religiosity differed from their mothers, the adolescent was more likely to be delinquent (L. D. Pearce & Haynie, 2004). Additionally, attendance at religious services (Donahue & Benson, 1995; Wallace Jr & Forman, 1998) and general religious involvement (Donahue & Benson, 1995) were found to be inversely related to interpersonal violence. Conversely, in their longitudinal analysis, Regnerus and Elder (2003a) found no relationship between church attendance and change in church attendance on delinquency in a sample of vulnerable youth.

Studies examining the effect of religion on alcohol or substance use were plentiful. Substance use outcomes that have been explored include alcohol, tobacco, marijuana and other drug use. Church attendance predicted lower alcohol and substance use in the majority of studies reviewed. Bankston III and Zhou (1996) reported a direct relationship between religious participation and alcohol and drug use in a sample of Vietnamese adolescents, though the relationship was partially the result of an association between religious participation and ethnic identification. Milot and Ludden (2009)

reported significant initial correlations between church attendance and cigarette, alcohol, and marijuana use for 8th and 9th graders; however only the effect on marijuana use remained significant after parental social support was considered. High school seniors, who attend church once a week, had lower mean levels of 2-week binge drinking, cigarette use, and alcohol use (Wallace Jr. & Forman, 1998) even after controlling for certain demographics. Church attendance was also negatively related to driving after drinking and riding with someone under the influence of alcohol in the same study. Additionally, when examining high school senior well-being over time, the authors found that low marijuana use persisted for highly religious seniors regardless of societal changes. Furthermore, church attendance and change in church attendance predicted lower alcohol use, but only had indirect effects on drug use through school attachment in a sample of vulnerable youth (Regnerus & Elder, 2003a).

Amey, Albrecht, and Miller (1996) found significant relationships between higher levels of attendance and cigarette, alcohol, and marijuana use for black and white high school seniors. However, although black adolescents were found to attend church slightly more often than their white counterparts, the overall impact of attendance and other measures of religiosity on drug use was greater for white teens. Similarly, Heath and colleagues (1999) reported greater frequency of attendance at religious services for African American twin female adolescents. For both groups, at least weekly church attendance was found to be a significant protective resource against the onset of smoking or alcohol use, but in contrast to the previous findings, greater religious involvement was a stronger influence against the onset of smoking for African American girls as compared

to white adolescents (Heath et al., 1999). Finally, using a composite scale of attendance and importance, Wallace Jr. and others (2007) report varying relationships between religion and substance use within individual and school contexts. The authors found that higher individual and school level religiosity is related to lower tobacco use, binge drinking and marijuana use, but the net effect of higher school religiosity remains only for marijuana, when individual religiosity is controlled. The findings also reveal varying relationships between individual religiosity and substance use outcomes within the school context, such that highly religious adolescents in highly religious schools are less likely to engage in alcohol use and to a lesser degree marijuana use, than their similarly religious counterparts in less religious schools (Wallace Jr. et al., 2007).

Other studies utilized broader measures of organizational participation to assess impact of religion on alcohol and substance use. In a sample of over 34,000 adolescents, Donahue and Benson (1995) found a negative relationship between both church attendance and church related activities and binge drinking, marijuana use, and cigarette smoking. Similarly, public religiosity, as indicated by frequency of attendance at religious services and religious youth group activities, was protective for cigarette, alcohol, and marijuana use, particularly for regular versus experimental use (Nonnemaker, McNeely, & Blum, 2003). Additionally, Forthun, Bell, Peek, and Sun (1999) found that involvement in church and church activities in junior high school, predicted alcohol and marijuana use in a sample of young adults. Furthermore, using a latent construct of religion including measures of church activity and private religiosity, Benda and Corwyn (2000) reported a significant relationship between religion and

addictive, dependence, and gateway drugs across gender and age groups assessed.

Only one study reviewed measured the importance of involvement in church group activities to participants. Cochran (1992) found that religiosity as operationalized in this way had a statistically significant and inverse, although weak, effect on all drug types, except alcohol.

Sexual behavior studies examined the relationship between religion and mainly early initiation of sexual intercourse and the likelihood of involvement in pre-marital sex. Cross sectional studies reported that greater frequency of church attendance was related to the delay of early sexual intercourse for black girls (Murry, 1994), adolescent males, especially non-black males (Ku, Sonenstein, & Pleck, 1993), and adolescents in general, particularly younger teens and non-blacks (Bearman & Brückner, 2001). In a longitudinal analysis, Hardy and Raffaelli (2003) found that higher religiosity at first measurement was associated with lower probability of first intercourse between first and second measurement. The researchers utilized a composite measure of church attendance and importance of religion in their analysis.

Additionally, Billy and colleagues (1994) and Ball and associates (2003) found that frequency of church attendance is related to less involvement in pre-marital sexual activity for black and white adolescent females and black female adolescents, respectively. Billy and colleagues (1994) also noted contextual effects of community religiosity such that the influence of community religiosity works primarily through its positive effect on individual religiosity, which in turn is inversely related to likelihood of premarital sex. Church attendance and church activities was also negatively related to

premarital sexual involvement in a large sample of adolescents (Donahue & Benson, 1995).

Other studies using composite measures and assessing a variety of sexual behavior outcomes revealed consistency in findings with previous research reviewed. In a study of African American adolescent females, McCree, Wingood, DiClemente, Davies, and Harrington (2003) found that higher levels of religiosity, including attendance at services, was associated with the propensity to engage in a number of safer sexual behavior practices including utilizing protection, and discussing sex, pregnancy, and STD's with partners. These adolescents were also more apt to have better attitudes about safe sex and were later coital initiators (McCree et al., 2003). Additionally, organizational religiosity, as indicated by frequency of attendance at religious services and religious youth group activities, was protective for probability of ever having sex and for females, the likelihood of ever having been pregnant (Nonnemaker et al., 2003).

Psychological functioning. Research on the effects of religious involvement has also examined the construct as a protective factor against negative psychological outcomes. For the most part, the literature revealed very minimal impact of organizational religiosity on negative psychological outcomes. Donahue and Benson (1995) reported a relatively small impact of church attendance on suicide ideation and attempts, while Nonnemaker et al. (2003) reported no association between public religiosity and suicidal attempts or thoughts. Ritual attendance was found to have an inverse relationship with psychological distress in a mostly Catholic population of high school students (Mosher & Handal, 1997). Similarly, Nonnemaker and colleagues (2003)

reported that public religiosity was related to lower emotional distress in a large nationally representative sample of adolescents.

Studies that examined the relationship between church attendance and depression in adolescents were slightly more common in nature than those of suicide attempts and ideation. Wright, Frost, and Wisecarver (1993) found that high school students who attended church more frequently had lower scores on the Beck depression inventory, indicating lower depressive symptomatology. Similarly, Harker (2001) reported an inverse relationship between church attendance and depression for first-generation immigrant adolescents. Additionally, church and church activity attendance significantly correlated with lower depressive symptoms in an adolescent sample; however, there was no unique contribution of church and church activity attendance after the variables were entered into a regression model with private religious activities and labeling oneself religious or spiritual, even though as a set they made a significant contribution to lower depressive symptoms in adolescents (M. J. Pearce, Little, & Perez, 2003). In this same analysis, positive support from church members also surfaced as an important predictor of lower depressive symptoms. Schapman and Inderbitzen-Nolan (2002) also found that more frequent engagement in religious activities – attendance at formal services and religion class - was also associated with less depressive symptoms, but only minimally with anxiety symptoms. Interestingly, the same researchers assessed adolescent desire to attend versus being forced to attend and reported that greater desire to participate was associated with less depressive symptoms, but not anxiety symptoms. Finally, L. Miller and Gur (2002) reported a significant inverse relationship between frequency of

participation in a religious community (religious service and church based activities) and depression, particularly for highly mature girls, in their study of female adolescents. In contrast, Milot and Ludden (2009) found no relationship between religious attendance and depression among rural adolescents.

Education. A number of studies have examined the impact of religion on various school-related outcomes including grades, academic progress, graduation, and college/career planning. Most of the literature supports a positive influence of religion in promoting desirable educational outcomes. Bankston III and Zhou (1996) reported a direct and positive relationship between religious participation and average grades and importance of college in a sample of Vietnamese adolescents, though the relationship was partially the result of an association between religious participation and ethnic identification. Other studies revealed that a higher level of church attendance was positively related to higher grades (Milot & Ludden, 2009), and helped vulnerable adolescents to circumvent poorer school grades (Regnerus & Elder, 2003a). Additionally, Regnerus and Elder (2003b) reported a positive influence of church attendance on academic progress for adolescents in both low income and affluent neighborhoods. The researchers further highlighted a unique protective influence of religion in the lower income communities, such that as poverty increased, the relationship between religion and academic progress became more positive (Regnerus, 2000; Regnerus & Elder, 2003b). Furthermore, involvement in church activities was also found to be positively related to higher achievement test scores and greater educational outlook for public school youth (Regnerus, 2000).

Research using composite measures of religion, including church attendance, also revealed positive relationships between religion and various educational outcomes. Trusty and Watts (1999) found positive correlations between religious perceptions and behavior and positive career outlook, better academic attitudes, less truancy, increased time on school based extracurricular activities and homework, and good grade recognition in a sample of high school seniors. These relationships were slightly mitigated by parental involvement. Additionally, a summed value of religious involvement was significantly associated with greater adolescent educational expectations, graduating from high school, higher level math ability, increased time on homework, and avoiding intentional class absence (Muller & Ellison, 2001). Religious involvement remained a significant contributor to the varied educational outcomes, even though the relationships were partially explained by community and family social capital.

Pro-social behavior and positive attitudes. Studies explicating the effect of religion on positive behavior and attitudes included outcomes related to pro-social development, thriving, and healthy lifestyle choices. Smith (1999) investigated the effect of religious participation, as an aspect of social capital, on civic virtue and political behavior in their longitudinal analysis. They concluded that religious participation during adolescence has a positive impact on civic virtue in adolescence and volunteerism and positive political involvement in early young adulthood. Similarly, Donahue and Benson (1995) reported a positive relationship between attendance at church and other religious activities and both pro-social values (i.e. helping others) and behavior (i.e. volunteerism). Additionally, Trusty and Watts (1999) found a positive relationship between a composite

measure of religion (including service attendance) and volunteer work in a national sample of high school seniors.

Both King and Furrow (2004) and Wagener and associates (2003) reported significant indirect effects of religious participation on moral outcomes and thriving. Higher levels of religious participation (religious activities and importance) was related to greater social capital resources (i.e. trusting and supportive relationships with others), which in turn led to a greater altruism and empathy (King & Furrow, 2004). In their study of over 20,000 adolescents, Wagener et al. (2003) found that the positive influence of church activity participation on thriving (i.e. leadership, helping others, overcoming adversity) was largely mediated by developmental assets. Essentially, increased participation was related to a greater number of developmental assets, which in turn fostered thriving.

In one of few studies on religious attendance and the promotion of healthy lifestyle behaviors, Wallace Jr. and Forman (1998) reported that adolescents who attended church more often were more inclined to wear seat belts, work out, eat right, and get enough sleep.

Psychosocial well-being. The few studies examining the relationship between organized religion and self-esteem in adolescents have rendered discrepant findings. Bagley and Mallick (1997) documented significant positive correlations between religious attendance and three measures of self-esteem in a Canadian sample of junior high school students. Likewise, Ball and colleagues (2003) found that African American female adolescents who attended church a few times a month reported the highest level of

self esteem compared to those who were weekly, occasional, or non-attendeers.

The same researchers found that the lowest levels of self-esteem were noted in adolescents who never attended and also attended nearly everyday. Conversely, both Milot and Ludden (2009) and Markstrom (1999) reported no significant relationship between church attendance or religious youth group involvement and general self-esteem in their samples of rural adolescents. Interestingly, Markstrom (1999) did find a positive and significant relationship between church attendance, bible study participation, religious youth group involvement, and school self-esteem in the same study.

In their assessment of psychological adjustment, Mosher and Handal (1997) reported significant, positive influences of church attendance and church related activities on life satisfaction in a mostly Catholic high school sample of adolescents. Ball and colleagues (2003) also found a positive effect of church attendance on healthy psychological functioning, indicating that adolescents who attended church a few times a month had greater positive psychological functioning than their less religious counterparts. Additionally, Bjarnason (1998) reported a positive relationship between religious participation, including attendance at religious services, and social coherence. Furthermore, Markstrom (1999) explored the relationship between religious involvement and psychosocial maturity in an equally split sample of black and white rural adolescents. Results indicated positive correlations between various levels of religious involvement and ego strengths such as hope, care, and love, most noticeably for white adolescents. Markstrom (1999) also noted higher levels of ethnic identity for African American

adolescents, particularly for those who participated in religious services and religious youth groups more frequently.

Summary

Using a Durkheimian framework, the purpose of the present study is to test the hypotheses that family, school, and religious integration are all positively related to psychosocial well-being in Black adolescents. As established in the previous chapter, research supports the need to address mental disorders and psychosocial well-being in adolescents through a comprehensive service framework. Additionally, the chapter recognized the need to conduct mental health research inclusive of underrepresented groups of adolescents. The review of the literature in the current chapter points to a more positive conceptualization of mental health as well as the importance of examining factors which promote psychosocial well-being in adolescence. In addition, as adolescents develop within social environments, it was critical to explore the influence of relevant social contexts such family, school, and religion on their psychosocial well-being.

The literature reviewed indicates that the majority of studies examined the relationship between specific aspects of family, school, and religion and adverse outcomes in mostly heterogeneous samples of adolescents. For the most part, the literature points to a significant protective effect of all three factors on risk behaviors, and educational outcomes, and reveals minimal impact on negative psychological functioning. The research also evinced that the exploration of the promotive or positive influence of family, school, and religion on the psychosocial well-being of adolescents in

general, and Black adolescents in particular, is sparse. Indeed, Black adolescents were minimally represented in much of the literature examining psychosocial well-being, indicating a key gap in the literature. The few studies that do exist revealed a mainly positive influence of family, school, and religion on aspects of positive mental health (i.e. self-esteem), prosocial values and behaviors, and education and career outcomes for adolescents in general. However, mental health was typically measured by one or two indicators and the majority of studies utilized either large probability samples of adolescents or smaller more homogeneous samples of sub-groups of adolescents. This study hopes to add to the limited body of literature on the mental health of adolescents by operationalizing the construct using both positive psychosocial well-being (self-esteem, mastery, and active coping) and lower psychosocial well-being (perceived stress and mental disorder) indicators. Subsequently, family, school, and religion will be explored as contributors to optimal psychosocial well-being in addition to protective influences against adverse psychosocial well-being in adolescence. As noted in Chapter 1, a number of studies focusing on mental ill-health and well-being have reported greater difficulty among low-income and non-white adolescents (i.e. Rushton et al., 2002). The overrepresentation of Black adolescents in low income households consequently signifies them as a particularly vulnerable group. Accordingly, the relationship between family, school, and religion and psychosocial well-being will be examined using a national probability sample of Black adolescents, inclusive of African American and Caribbean Black adolescents, a group that has been underrepresented in mental health research and may be at higher risk for the development of adverse psychosocial outcomes.

The next chapter explicates the original study design, the current study's analysis plan, and the observed variables selected to represent the latent constructs of family, school, religion, and mental health.

Chapter 3: Methodology

The current study is a secondary data analysis of the adolescent sample of the 2001-2003 National Survey of American Life (NSAL), conducted by researchers at the Program for Research on Black Americans (PRBA) through the University of Michigan's Institute for Social Research. This chapter will describe the original study design, sampling, and data collection procedures. The present study's research questions and hypotheses will be explicated. The process of selecting variables for the study will be described as well as the measurement instruments utilized to define identified variables. Additionally, the data analysis plan will be delineated.

Original Study Design, Sampling, and Data Collection

The NSAL provides extensive data on mental disorders and the mental health of adult Americans of African ancestry. The study is a part of the National Institute of Mental Health (NIMH) Collaborative Psychiatric Epidemiology Surveys initiative that includes two other nationally representative surveys-the National Comorbidity Survey Replication and the National Latino and Asian American Study-in addition to the NSAL (Pennell et al., 2004). The NSAL is a nationally representative household survey which utilized a stratified and clustered sample design to obtain a nationally representative sample of 3,570 African American (AA), 1,006 non-Hispanic whites, and 1,621 blacks of Caribbean descent (CBs)¹ aged 18 years and older (Jackson et al., 2004). The NSAL

¹ In the study, African American was used to describe people who self-identified as black but did not identify any lineal connections to the Caribbean. Caribbean blacks were those who self-identified as black and specified that they were from a country included on a list of Caribbean area countries presented by the interviewers or specified that at least one of their parents or grandparents was born in a Caribbean area country. Both black and black Americans are inclusive of both groups (Jackson et al., 2004).

weights for the AA and CB samples were designed to adjust for variation in probabilities of selection within households, and non-response rates in order to provide a representative sample of the non-institutionalized civilian population in the 48 contiguous states (Jackson et al., 2004). Taken together, the sample and weight characteristics classify the NSAL as a complex sample survey (Heeringa et al., 2003). Institutional review board approval was received from the University of Michigan and the study was conducted by the PRBA staff of the Survey Research Center at the University of Michigan from February 2001 to June 2003.

To generate the NSAL-Adolescent sample (NSAL-A), every AA and CB household that included an adult participant in the NSAL was screened for an eligible adolescent living in the household, and adolescents were selected using a randomized procedure. If more than one adolescent in the household was eligible, up to two adolescents were selected for the study, and if possible, the second adolescent was of a different gender (Sweetman, Baser, Rafferty, Torres, & Matusko, 2009). Similar to the adult sample weight, the NSAL-A weight was designed to adjust for variation in probabilities of selection within households, and non-response rates for adolescents and households. The weighted data were post-stratified to approximate the national population distributions for gender (male and female subjects) and age (13, 14, 15, 16, and 17 year old) subgroups among black youth (Joe et al., 2009).

Before the interview, informed consent and assent were obtained from the adolescent's legal guardian and adolescent, respectively. Most of the adolescent interviews were conducted in their homes, using a computer-assisted instrument.

Additionally, about 18% were conducted either in part or fully by telephone. The interviewers participated in four interview training sessions at the Survey Research Center at the Institute for Social Research at the University of Michigan, over a 14 month period. The AA interviews averaged 1 hour 40 minutes in length, and Caribbean adolescent interviews averaged 1 hour 50 minutes. Respondents were paid \$50 for their participation in the study; the overall response rate was 80.6% (80.4% for AAs and 83.5% for CBs) (Joe et al., 2009). Only AA and CB adolescents were interviewed.

Study Participants

The original adolescent sample consisted of 1,193 cases, but 23 were dropped from analyses because they were 18 or older at the time of the interview. Consequently, the resulting analysis sample consists of 1,170 AA ($n = 810$) and CB ($n = 360$) youths ranging in age from 13 to 17 years. The overall sample is composed of male subjects ($n = 563$ unweighted, 48% weighted) and female subjects ($n = 607$ unweighted, 52% weighted), and there is an equal gender distribution for AA and CB youth. The mean age is 15 years ($SD = 1.42$ years), and the age groups were categorized into early (aged 13-14 years; $n = 477$ [40%]), middle (aged 15-16 years; $n = 441$ [41%]), and late adolescence (aged 17 years; $n = 252$ [19%]). Approximately, 96% of the sample was still enrolled in high school, with the highest percentage being in the 9th grade. The median family income was \$28,000 (approximately \$26,000 for AAs and \$32,250 for CBs) (Joe et al., 2009).

Current Study

The current study uses a cross-sectional survey design to conduct a secondary analysis of the NSAL-A data-set. The study will utilize the full sample to conduct all analyses. The variables were selected based on their ability to help test the study's hypotheses.

Overall Research Question

What is the relationship between family, school, and religious integration and the mental health of Black adolescents?

Hypotheses

Hypothesis 1. Family integration will be positively related to the mental health of Black adolescents.

Hypothesis 2. School integration will be positively related to the mental health of Black adolescents.

Hypothesis 3. Religious integration will be positively related to the mental health of Black adolescents.

Variable Descriptions

Dependent variable.

Mental health. For the purpose of this study, mental health is generally conceptualized as:

a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her own community. (WHO, 2007, p.1)

Following Donahue and Benson (1995) and Kazdin (1993), mental health will be represented by both positive and negative psychosocial well-being indicators utilizing two latent factors. The latent factor positive psychosocial well-being will be indicated by the manifest variables of self-esteem, active coping, and mastery. Additionally, the latent construct negative psychosocial well-being will be indicated by two manifest variables - perceived stress and mental disorder. Both latent constructs will represent separate indicators of mental health in the SEM analysis.

Self-esteem. The Rosenberg Self-Esteem scale (Rosenberg, 1965) is an assessment of global self-esteem, and was originally designed to measure the self-esteem of high school students. This Likert scale includes 10 items, five positively worded and five negatively worded, scaled on 4-point responses, ranging from 1 (strongly agree) to 4 (strongly disagree). Sample items from the scale include “On the whole, I am satisfied with myself” and “I feel that I have a number of good qualities”. The positively worded items were reversed scored, so that higher scores indicate more positive self esteem. Internal consistency measured by coefficient alphas was .92 and test-retest reliability over two weeks produced correlations ranging from .85 to .88 indicating good internal consistency and stability for the scale (Fischer & Corcoran, 2007). In addition, validity tests of the scale indicate good criterion and construct validity (Fischer & Corcoran, 2007). Reliability for the scale in the NSAL-A is $\alpha = .72$ for the total adolescent sample.

Active coping. The John Henryism scale (James, 1996) is a measure of high effort coping or the tendency to respond actively to psychosocial stressors. The scale was originally tested on samples of African American males and later on in general samples

of older youth and adults (Kessler et al., 1994). The 12-item Likert-type scale assesses three main constructs - efficacious mental and physical vigor, a strong commitment to hard work, and a single-minded determination to succeed (James, 1994). Sample items from the scale include “I’ve always felt that I could make of my life pretty much what I wanted to make of it” and “Hard work has really helped me to get ahead in life”. For the NSAL-A study, the rating items include responses ranging from 1 (completely true) to 4 (completely false), a slight adaptation of the original 5-point scale. Each item was reverse scored and summed to obtain a total score, with higher scores representing higher levels of John Henryism. Internal consistency for the scale has been reported to vary between .70 and .80 (James, 1994). In addition, both convergent and discriminant validity have been evidenced for the scale (Fernander, Duran, Saab, Llabre, & Schneiderman, 2003). Reliability for the scale in the NSAL-A is $\alpha = .71$ for the total sample.

Mastery. The Pearlin’s Mastery scale assesses an individual’s sense of control over their own life chances (Pearlin & Schooler, 1978). The scale was originally developed for use in a general sample of adults and includes seven items, scaled on 4-point responses, ranging from 1 (strongly agree) to 4 (strongly disagree). Sample items from the scale include “I can do just about anything I set my mind to” and “I have little control over the things that happen to me”. The positively worded items were reversed scored, and averaged so that higher mean scores indicate greater mastery. Satisfactory internal consistency (i.e. $\alpha = .77$) (Marshall & Lang, 1990) and validity were established by previous research (Pearlin & Schooler, 1978; Pearlin, Menaghan, Lieberman, &

Mullan, 1981). For the current study, mean scores will be recalculated to reflect the seven questions from the original mastery scale, as the NSAL-A data utilized an adapted version. Reliability for the seven item original scale in the NSAL-A is $\alpha = .68$ for the total adolescent sample.

Perceived stress. The Cohen's perceived stress scale (Cohen, Kamarck, & Mermelstein, 1983) measures the degree to which an individual appraises the situations in their life as stressful. The scale was originally designed for use with community samples. The original scale consisted of 14 items, and rating items include responses ranging from 1 (never) to 5 (very often). Sample items from the scale include "In the last month, how often have you felt that you were in control of your life?" and "In the last month, how often have you felt nervous and stressed out?" The positively worded items were reversed scored, and summed higher scores suggest greater levels of perceived stress. Validation data from the original study of two groups of college and one group of graduate students indicate good reliability (i.e. $\alpha = .84$). Two day test-re-test reliability was also reported at $\alpha = .85$. Additionally, concurrent and predictive validity were also established by the original study (Cohen et al., 1983). Reliability for the scale in the NSAL-A is $\alpha = .77$ for the total adolescent sample.

Mental disorders. Adolescent study participants completed a diagnostic interview using a modified version of the World Mental Health Composite International Diagnostic Interview (WMH-CIDI) which was based on the World Health Organization Composite International Diagnostic Interview (WHO-CIDI) (Kessler & Ustun, 2004). For the NSAL-A study, the instrument administered to the adolescents was adapted from the

original version of the WMH-CIDI to accommodate youth as young as 13 years old (Sweetman et al., 2009). The fully structured diagnostic interview is lay-administered and generates classifications of psychiatric disorders as defined by the DSM-IV and the International Statistical Classification of Diseases, 10th Revision (Andrews & Peters, 1998). The NSAL-A sample assessed five main categories of disorders which includes 19 core DSM-IV mental disorders. The study provided information on anxiety disorders (generalized anxiety disorder, panic disorder, social phobia, agoraphobia, post-traumatic stress disorder) mood disorders (major depressive disorder, dysthymia, irritable major depression, bipolar I & II), substance disorders (alcohol abuse, alcohol dependence, drug abuse, drug dependence), impulse control disorders (oppositional-defiant disorder, conduct disorder, intermittent explosive disorder), and eating disorders (anorexia, bulimia, binge eating disorder) (Sweetman et al., 2009). Previous research has demonstrated the CIDI to have good psychometric properties with adolescents as young as 15 years old (Andrews & Peters, 1998). The NSAL-A sample generated lifetime, 12-month, and 3-day DSM-IV diagnoses for each of the disorders. For the purpose of the present study, the lifetime diagnosis summary variable (with binge) will be used to indicate whether a respondent met the criteria for any anxiety, mood, impulse, substance abuse, or eating disorder. The variable is coded 0 = no disorder and 1=1 or more disorders.

Independent variables.

Family integration. Family integration is conceptualized as the degree to which adolescents are involved in and attached to family and extended family. Consistent with

literature that postulated that family support and closeness may promote better psychosocial outcomes, such as higher self esteem, efficacy, and self-confidence, and protect the adolescent from negative mental health and behavioral outcomes (Aydin & Oztutuncu, 2001; Dornbusch et al., 2001; Harker, 2001; Stice et al., 2004), the family integration variable will be operationalized through anticipated and actual support from family members and family closeness. Additionally, a measure of communication with family or relatives living outside of the home is included as interaction with extended family has been evidenced as important to the lives of Black adolescents (Wilson, 1989) and adolescents may have parents residing outside of the home.

Anticipated family support. The scale measures amount of probable support from family members. It is derived from the National Survey of Black Americans (NSBA) (Jackson & Neighbors, 1997), which was designed to provide an appropriate theoretical and empirical approach to concepts, measures, and methods in the study of Black Americans, 18 years old and above. The scale consists of three items and the ratings for response items range from 1 (a great deal) to 4 (none). A sample question from the scale asks adolescents “If you were sick, how much would the people in your family be willing to help out?” The items were all reverse scored so that higher mean values indicate greater anticipated support. Reliability for the scale in the NSAL-A is $\alpha = .72$ for the total adolescent sample.

Receive emotional and tangible support. The support scale measures how often adolescents receive tangible and emotional support from family members. The scale was adapted from the Fetzer Institute measures of religious support (Fetzer

Institute/National Institute on Aging Working Group, 1999). It consists of three items measuring emotional support including “How often do your family members make you feel loved and cared for?” The scale also incorporates two items measuring tangible support, for example, “How often do you family members help you financially?” Response choices range from 1 (very often) to 4 (never). All items were reverse scored and the mean calculated so that higher scores indicate a greater level of actual support. Reliability for the scale in the NSAL-A is $\alpha = .72$ for the total sample.

Family closeness. Adolescent closeness to family was measured by the question, “How close do you feel towards your family members?” The item was derived from the NSBA (Jackson & Neighbors, 1997). The response choices range from 1 (very close) to 4 (not close at all). For the purpose of the current study, the responses were recoded so that a higher response represents greater closeness to family.

Family communication. Frequency of communication with family or relatives not residing with the adolescent was measured by the question, “How often do you see, write, and talk on the telephone with, or e-mail family or relatives who do not live with you?” This item was derived from the NSBA (Jackson & Neighbors, 1997). The responses ranged from 1 (nearly every day, 4 or more times a week) to 7 (never). For the current study, the responses were recoded so that a higher response represents a greater level of communication.

School integration. School integration is conceptualized as the degree to which adolescents are engaged in and attached to school. Congruent with literature that emphasizes the importance of examining outcomes predicted by both behavioral and

affective components of a student's school experience (Finn, 1989; Johnson et al., 2001; Morse et al., 2004), this study will utilize both number of years of involvement in extracurricular activities and school bonding to operationalize school integration.

School-based extracurricular activity participation. The participation measure asks adolescents to indicate the number of years (ranging from 0-10) that they have participated in each of five categories of school-based extracurricular activities. The categories include (1) sports teams other than gym, (2) band, orchestra, or chorus, (3) student newspaper or yearbook, (4) student council or honor society, and (5) any other school clubs, teams, or organizations. This item was derived from the National Comorbidity Survey Replication (NCS-R) adolescent supplement, a national psychiatric epidemiological survey of adolescents aged 13 to 17 years (Merikangas, Avenevoli, Costello, Koretz, & Kessler, 2009). For the purpose of this study, each of the five activities was recoded 0=did not participate and 1=did participate. A new variable was then computed where the five categories were summed and divided by five to represent an activity score ranging from 0=participation in no activities to 5=participation in all five activities. This variable is labeled activity score.

School bonding. The school bonding scale is a measure of adolescent affective connection and attitude towards school. The scale was partially derived from conceptualizations of school experiences as protective mechanisms (Hawkins, Catalano, & Miller, 1992) or resiliency factors (Zimmerman & Arunkumar, 1994) related to adolescent behavioral or well-being outcomes. The scale consists of nine items, scaled on 4-point responses ranging from 1 (very true) to 4 (not at all true). Sample items from

the scale include “Most of my teachers treat/ed me fairly” and “Homework is/was a waste of time”. The positively worded items were reverse scored and all items averaged so that higher scores represent greater bonding to school. Reliability for the scale in the NSAL-A is $\alpha = .71$ for the total adolescent sample.

Religious Integration. For this study, religious integration is conceptualized as the degree to which adolescents are involved in and connected to a religious institution. Consonant with the idea that participation in religious organizations can promote a sense of shared values and beliefs, positive social connections, and an exchange of caring and support (Milot & Ludden, 2009; Schnittker, 2001), religious integration will be operationalized through measures of organizational participation, including church attendance and other church related activities, as well as support from church members. Additionally, Schapman and Inderbitzen-Nolan (2002) reported that greater adolescent desire to participate in religious services (versus being forced to participate) was associated with less depressive symptoms. As young people attend service most times with their parents or family members, adolescent desire to attend church and participate in church activities would be an important construct to consider as part of their connection to religious institutions. Subsequently, religious integration will be represented by actual involvement (attendance, participation), commitment to that attendance (choice to attend and participate) and religious support.

Religious service attendance. Religious service participation was measured by the question, “How often do you usually attend religious services?” derived from the NSBA (Jackson & Neighbors, 1997). Participant responses ranged from 1 (nearly every

day - 4 or more times a week) to 6 (never). The responses were recoded such that a higher number represents greater church attendance. All missing data was recoded to never.

Choice to attend religious service. Adolescent choice to attend religious services was measured by the question, “Do you go to religious services because you want to, or because your (parents/guardians) make you go?” The question was derived from the NSBA (Jackson & Neighbors, 1997). Participants responded either 1 (choose), 2 (parents/guardians make you go), and 3 (both). The variable was recoded such that 1 = 1 (clear choice to attend) and 2, 3 = 0 (forced to attend and both desire/forced). All missing data was recoded to 0, based on the observation that those who never attended religious services or attended only once a year did not answer this question.

Religious service participation. Activities that adolescents participate in during church services was measured by the question, “Do you do things like sing in the choir, read scripture, or other things like that during service?”. The question was derived from the NSBA (Jackson & Neighbors, 1997). Participants responded either 1 (yes) or 5 (no). The variable was recoded such that 0 = no participation during service and 1 = participation during service. All missing data was recoded to 0, based on the observation that those who never attended religious services or attended only once a year did not answer this question.

Church related activity. Adolescent participation in activities at a religious institution, outside of church service was measured by the question, “Besides regular services, how often do you take part in other activities at your place of worship?” This

variable was derived from the NSBA (Jackson & Neighbors, 1997). The responses ranged from 1 (nearly every day - 4 or more times a week) to 5 (never). The variable was recoded such that a higher number represents greater participation in church activities outside of religious services. All missing data was recoded to 1, based on the observation that those who never attended religious services or attended only once a year did not answer this question.

Choice to participate in church related activity. Adolescent choice to participate in church-related activities was measured by the question, “Do you go to these other activities because you want to, or because your (parents/guardians) make you go?” The question was derived from the NSBA (Jackson & Neighbors, 1997). Participants responded either 1 (choose), 2 (parents/guardians make you go), and 3 (both). The variable was recoded such that 1 = 1 (clear choice to attend) and 2, 3 = 0 (forced to attend and both desire/forced). All missing data was recoded to 0, based on the observation that those who never attended religious services or attended only once a year did not answer this question.

Religious support. The support scale measures how often adolescents receive tangible and emotional support from church members. It consists of three items measuring emotional support including “How often do the people in your place of worship express interest and concern in your well-being?” and one item measuring tangible support “How often do people in your place of worship help you financially?” The emotional support items were derived from the Fetzer Institute measures of family support (Fetzer Institute/National Institute on Aging Working Group, 1999). The

tangible support item was derived from the NSBA (Jackson & Neighbors, 1997).

The choices for responses ranged from 1 (very often) to 4 (never). The tangible support item was recoded such that 4 = 4 (never) and 6 (never needed help). Then, all items were reverse scored, summed, and the mean calculated so that higher scores indicate a greater level of support. Reliability for the scale in the NSAL-A is $\alpha = .75$. All missing data was recoded to 0, based on the observation that those who never attended religious services or attended only once a year did not answer this question.

Control variables. Age, gender, ethnicity, and household income will be used as relevant controls. All adolescents responded to questions requesting information about their age. Adolescent gender was assessed as part of the randomized respondent selection process used in the household sampling procedure for the original study. Ethnicity was determined based on the adult household in the NSAL. Household income was also imputed based on the adult report of family income in the NSAL. The sample therefore is not fully self-identified; it is partially identified through the sample screening process for study eligibility (Joe et al., 2009).

Age. Age was determined at time of interview, by adolescent response to the question, “How old are you now?” The variable represents adolescent age in years, from 13-17.

Gender. The dummy variable for sex is coded 0 = Male and 1 = Female.

Ethnicity. Ethnicity was determined based on the race of the adult household. The variable is coded 0=African-American and 1=Caribbean black.

Household income. The variable is the imputed family income based on the adult household. The variable was recoded such that 1 = \$0-17,999, 2 = \$18,000-31,999, 3 = \$32,000-54,999, and 4 = \$55,000 and above.

Data Analysis Plan

Uni- and bi-variate analyses will be employed to provide descriptive statistics, and examine relationships among variables. All univariate and bivariate statistics will be garnered using Predictive Analytics Software, (PASW; SPSS 2009) version 18 accounting for the complex survey design, where appropriate and feasible. Structural equation modeling (SEM) will be used to 1) test an *a priori* specified theory derived model relating latent to measured variables (measurement model) and 2) test *a priori* hypothesized causal relations among latent variables (structural model). SEM will be conducted using Mplus v.5.21 (Muthén & Muthén, 2007), which accounts for the complex sample survey design.

Univariate Analysis. Unweighted and weighted frequencies and percentages of demographic variables will be examined and utilized to describe the sample. Unweighted and weighted means of all study variables will also be determined to provide further descriptive information.

Bivariate Analysis. Chi-square tests of association will be used to examine relationships between categories of demographic characteristics by ethnicity. The design corrected Rao-Scott adjusted chi-square statistic will be reported. Correlations among the independent variables and between the independent and dependent variables will be garnered using Pearson's correlation coefficient (*r*). Multicollinearity will be examined

among all the study variables. To date, no design adjustments can be made for correlational analysis, but sample weights will be applied.

Structural Equation Modeling. SEM is a multivariate statistical analysis technique that integrates both factor and path analysis. It accounts for measurement error, multiple latent independents represented by multiple indicators, correlated error terms, nonlinearities, and one or more latent dependents with multiple indicators. As compared to multiple regression, SEM includes more flexible assumptions, use of confirmatory factor analysis to reduce measurement error by having multiple indicators per latent variable, and the ability to test a model overall versus individual coefficients. Relevant assumptions of SEM, such as sample size, missing data, normality, outliers, and multicollinearity will be evaluated prior to model development.

For this study, SEM involves the development of a structural model with latent variables which requires both the articulation of the relationships between observed and unobserved or latent variables and the causal sequence proposed to exist among those latent variables, based on *a priori* theory (Duncan & Stoolmiller, 1993). This is accomplished through both confirmatory factor analysis and latent variable path analysis. Following Duncan and Stoolmiller (1993), this study will employ a two-step approach to model development. The first step is the construction of a measurement model. This assures that any badness of model fit is due to misspecification in the measurement model versus poor structural relations among the latent variables (Mattanah, Hancock, & Brand, 2004). If the data do not fit the initial measurement model, modifications proposed by the output will be evaluated and applied sequentially if meaningful improvement in the

model is suggested and if the modification makes both statistical and theoretical sense. The second step of the SEM process involves imposing a theory based structural hypothesis on the latent variables in the final confirmatory model. Results of the structural model will be compared to the final confirmatory model to examine changes in the acceptability of data-model fit. Analysis of the structural relations will be conducted to determine support for the study hypotheses.

Limitations of Secondary Data Analysis

Secondary analysis of survey data may pose some inherent challenges. Mainly, data collected for the purpose of a prior study may not adequately represent the constructs that a researcher is interested in exploring and subsequently measuring in a current study (Kiecolt & Nathan, 1985). Another potential challenge may lie in the measurement of the originally collected data. Specifically, lack of psychometric soundness of scales utilized could pose an issue in reporting internal consistency (Brooks-Gunn, Phelps, & Elder, 1991). Additionally, secondary analysis of interview based surveys does not account for the context in which the data were collected and any nuances associated with respondent-interviewer interactions (E. Smith, 2008). Furthermore, the secondary analyst may encounter challenges with obtaining a sufficient number of respondents with the characteristics of interest to compose a reasonable sample for analysis (Thomas, Heck, & Bauer, 2005).

Summary

The current research applies a cross sectional survey design to conduct a secondary analysis of the adolescent sample of the 2001-2003 NSAL, which provides

extensive data on mental disorders and the mental health of adult Americans of African ancestry. The present study is conducted to examine the relationship between levels of family, school, and religious integration and the mental health of Black adolescents. Statistical analysis programs were selected based on their ability to account for the complex sample survey design of the study, where possible. Uni- and bi-variate analyses will be employed to provide descriptive statistics, and examine relationships among variables. Additionally, SEM will be used to test *a priori* specified relationships between measured and latent variables and hypothesized casual relationships among latent variables.

The next chapter will present results of all analyses including characteristics of the sample, relationships among measured variables, and causal relationships among latent variables. Interpretation of the findings will be incorporated throughout the chapter along with the relationship of the findings to the study's hypotheses.

Chapter 4: Findings

The current chapter presents the results of the descriptive and multivariate analyses of the subset of NSAL-A data utilized in the study. All findings will be presented using the complex sample design corrected and/or weighted statistics, where applicable. The results of the SEM analysis will include descriptions of the steps utilized to develop both the measurement and structural models. Findings will be summarized and interpreted in relation to the study's hypotheses.

Descriptive Findings

Descriptive information for the sample is presented in Tables 1 and 2. Table 1 displays the findings of chi-square analysis of the demographic characteristics of the sample. Statistical significance for this analysis is based on the design adjusted F and its degrees of freedom. The results reveal that the AA and CB adolescents did not significantly differ in demographic characteristics, except for age (Table 1). The statistics illustrate that slight differences exist between the AA and CB adolescents at 13 and 15 years old. There are a larger number of younger AA (20.8%) compared to CB adolescents (10.6%). Conversely, more CB adolescents (28.3%) are in the 15 year old (median) age group than AA adolescents (20.0%). Although not statistically significant, there appears to be a slightly greater percentage of CB female adolescents than any other male or female group of adolescents. Table 2 presents the mean scores of all measured variables representing the latent constructs of family, school, and religious integration as well as mental health. Results reveal little difference between the unweighted and

Table 1

Unweighted and Weighted Distributions of Demographic Characteristics of the National Survey of American Life Adolescent Sample by Ethnicity

	African American n ^a = 810			Caribbean Black n ^a = 360			Characteristic x Ethnicity χ^2
	n ^a	%uwt ^b	%wt ^c	n ^a	%uwt ^b	%wt ^c	
Gender							
Male	398	49.1	50.4(1.9)	165	45.8	44.8(2.3)	$\chi^2 = 3.5$ p=.07
Female	412	50.9	49.6(1.9)	195	54.2	55.2(2.3)	
Age of Respondent							
13	165	20.4	20.8(1.9)	56	15.6	10.6(1.2)	$\chi^2 = 3.5$ p=.04
14	184	22.7	20.1(1.6)	72	20.0	20.2(1.4)	
15	135	16.7	20.0(1.6)	79	21.9	28.3(4.3)	
16	153	18.9	20.2(1.8)	74	20.6	18.4(4.4)	
17	173	21.4	18.9(1.2)	79	21.9	22.5(1.1)	
Household Income ^d							
\$0 - \$17,999	244	30.2	27.7(2.5)	67	18.8	26.2(5.2)	$\chi^2 = .97$ p=.4
\$18,000 - \$31,999	223	27.6	27.4(1.8)	107	30.0	20.3(3.2)	
\$32,000 - \$54,999	187	23.2	24.6(2.4)	94	26.3	33.2(4.2)	
≥ \$55,000	153	19.0	20.2(2.2)	89	24.9	20.3(6.7)	

Note: All weighted estimates are weighted to be nationally representative of the given population and subpopulations in the contiguous 48 states of the United States. Standard errors and χ^2 statistics are adjusted for the sampling stratification, clustering and weighting of the data.

^aSample size (n) is unweighted

^bUnweighted

^cWeighted (standard error)

^dReflects adult respondents' status

weighted means of all measured variables. For all the family integration variables, the adolescents mean scores are above the 75th percentile, based on 4- or 7- point scaled responses. Similarly, adolescents are, on average, scoring above the 75% percentile for bonding to school, based on a 4-point scale. The findings also show that adolescents are averaging close to two school based extracurricular activities during their school career. Examination of the religious integration variables shows slightly lower mean scores overall (ranging in the 50th – 70th percentile), as compared to the school or family integration variables. This determination is based on 7- (religious service attendance), 6-

(church related activity participation), or 4- (religious support) point response categories. Additionally, on average, adolescents had high self-esteem and high mastery based on 4-point scales. On average, adolescents also displayed higher active

Table 2

Unweighted and Weighted Means and Reliability of Study Variables

	Uwt X ^a (SD)	Wt X ^b (SE)	Reliability(α)
Independent Variables			
Family Integration			
Anticipated Family Support	3.77(.43)	3.77(.02)	.72
Emotional/Tangible Support	3.41(.52)	3.42(.02)	.72
Closeness to Family	3.61(.61)	3.62(.03)	NA
Family Communication	5.40(1.8)	5.44(.07)	NA
School Integration			
Activity Score	1.86(1.3)	1.82(.05)	NA
School Bonding	3.39(.45)	3.41(.02)	.71
Religious Integration			
Religious Service Attendance	4.11(1.2)	4.08(.05)	NA
Choice to Attend Religious Service	.69(.46)	.70(.02)	NA
Religious Service Participation	.51(.50)	.51(.03)	NA
Church Related Activity Participation	2.63(1.2)	2.62(.05)	NA
Choice to Participate in Church Related Activity	.84(.36)	.84(.02)	NA
Religious Support – Emotional/Tangible	2.71(.77)	2.74(.03)	.75
Dependent Variables			
Positive Psychosocial Well-being			
Self-Esteem	3.55(.42)	3.56(.01)	.72
Mastery	3.14(.55)	3.16(.02)	.68
Active Coping	40.66(4.2)	40.75(.17)	.72
Negative Psychosocial Well-being			
Perceived Stress	35.57(7.8)	35.39(.31)	.77
Lifetime any Disorder	.37(.48)	.37(.02)	NA

Note: All weighted means are weighted to be nationally representative of the given population and subpopulations in the contiguous 48 states of the United States. Standard errors are adjusted for the sampling stratification, clustering and weighting of the data. Reliability is not adjusted for sampling stratification, clustering, and weighting of the data.

SD = standard deviation;

SE = standard error;

NA = not applicable

^aUnweighted mean

^bWeighted mean

coping skills (maximum summed score of 48), and lower perceived stress (maximum summed score of 62). The table also reveals acceptable reliability for all the scales utilized to operationalize the study variables.

Pearson's Correlation Analyses

For ease of interpretation, correlation analyses were conducted for each of the independent with dependent variable indicators separately. Additionally, correlations were garnered for all the independent variables together. The results of Table 3 show mostly significant relationships between the indicators of the family integration variable and the indicators of the psychosocial well-being variables, except for family communication with mastery and lifetime disorder. The highest significant correlations among the independent and dependent variables were observed between anticipated family support and self-esteem ($r = .29$), mastery ($r = .22$), and perceived stress ($r = -.24$) and emotional/tangible support and self-esteem ($r = .23$) and perceived stress ($r = -.23$).

Table 3

Correlation Matrix of Psychosocial Well-being and Family Integration Variables

Variable	1	2	3	4	5	6	7	8	9
1 - Anticipated Family Support	1.00								
2 - Emotional/Tangible Support	.55 ^c	1.00							
3 - Closeness to Family	.45 ^c	.46 ^c	1.00						
4 - Family Communication	.16 ^c	.19 ^c	.22 ^c	1.00					
5 - Self Esteem	.29 ^c	.23 ^c	.20 ^c	.12 ^c	1.00				
6 - Mastery	.22 ^c	.21 ^c	.11 ^c	.05	.54 ^c	1.00			
7 - Active Coping	.16 ^c	.19 ^c	.08 ^b	.06 ^a	.37 ^c	.27 ^c	1.00		
8 - Perceived Stress	-.24 ^c	-.23 ^c	-.19 ^c	-.12 ^c	-.52 ^c	-.62 ^c	-.30 ^c	1.00	
9 - Lifetime any Disorder	-.15 ^c	-.12 ^c	-.19 ^c	-.05	-.26 ^c	-.26 ^c	-.10 ^b	.34 ^c	1.00

Note: Correlations are weighted to be nationally representative of the given population and subpopulations in the contiguous 48 states of the United States, but are not adjusted for the sampling stratification or clustering of the data.

^a $p < .05$

^b $p < .01$

^c $p < .001$

School integration indicators were significantly related to most of the psychosocial well-being indicators in the next correlation analysis (Table 4). However, school activity participation was not significantly related to active coping or lifetime any disorder.

Table 4

Correlation Matrix of Psychosocial Well-being and School Integration Variables

Variable	1	2	3	4	5	6	7
1 – Activity Score	1.00						
2 – School Bonding	.15 ^c	1.00					
3 – Self Esteem	.10 ^c	.34 ^c	1.00				
4 – Mastery	.08 ^b	.23 ^c	.54 ^c	1.00			
5 – Active Coping	.04	.28 ^c	.37 ^c	.27 ^c	1.00		
6 – Perceived Stress	-.11 ^c	-.23 ^c	-.52 ^c	-.62 ^c	-.30 ^c	1.00	
7 – Lifetime any Disorder	.00	-.22 ^a	-.26 ^c	-.26 ^c	-.10 ^b	.34 ^c	1.00

Note: Correlations are weighted to be nationally representative of the given population and subpopulations in the contiguous 48 states of the United States, but are not adjusted for the sampling stratification or clustering of the data

^ap < .05

^bp < .01

^cp < .001

The largest correlations were observed between school bonding and both self-esteem ($r = .34$) and active coping ($r = .28$).

Table 5 shows the results of the correlation analysis of the religious integration and psychosocial well-being indicators. Only choice to attend religious services was related to all of the well-being indicators. Additionally, active coping was related to all of the religious indicators except religious service attendance. The largest correlations were observed between active coping and both choice to attend religious services ($r = .18$) and religious support ($r = .20$).

Examination of the correlations between the dependent variable indicators (Tables 3-5) reveals significant and positive correlations among self-esteem, mastery, and active coping and similarly a positive correlation between stress and lifetime any disorder.

Significant and negative correlations were observed between each of the positive psychosocial well-being variables (i.e. self-esteem) and each of the negative psychosocial well-being variables (i.e. stress). The largest correlations were noted between mastery and both perceived stress ($r = -.62$) and self-esteem ($r = .54$). Additionally, the correlation between self-esteem and perceived stress produced a correlation of $r = .52$.

Table 5

Correlation Matrix of Psychosocial Well-being and Religious Integration Variables

Variable	1	2	3	4	5	6	7	8	9	10	11
1 - Religious Service Attendance	1.00										
2 - Choice to Attend Religious Service	.10 ^b	1.00									
3 - Religious Service Participation	.34 ^c	.12 ^c	1.00								
4 - Church Related Activity Participation	.54 ^c	.14 ^c	.45 ^c	1.00							
5 - Choice to Participate in Church Related Activity	.03	.49 ^c	.11 ^b	.02	1.00						
6 - Religious Support – Emotional/Tangible	.24 ^c	.25 ^c	.28 ^c	.39 ^c	.18 ^c	1.00					
7 – Self Esteem	.08 ^a	.14 ^c	.02	-.03	.13 ^c	.14 ^c	1.00				
8 – Mastery	.05	.09 ^b	-.00	-.07 ^a	.08 ^a	.05	.54 ^c	1.00			
9 – Active Coping	.01	.18 ^c	.10 ^b	.07 ^a	.15 ^c	.20 ^c	.37 ^c	.27 ^c	1.00		
10 – Perceived Stress	-.07 ^a	-.07 ^a	.03	-.00	-.06	-.02	-.52 ^c	-.62 ^c	-.30 ^c	1.00	
11 – Lifetime any Disorder	-.05	-.07 ^a	.03	-.03	-.05	-.06	-.26 ^c	-.26 ^c	-.10 ^b	.34 ^c	1.00

Note: Correlations are weighted to be nationally representative of the given population and subpopulations in the contiguous 48 states of the United States, but are not adjusted for the sampling stratification or clustering of the data.

^a $p < .05$

^b $p < .01$

^c $p < .001$

Table 6 shows the correlations of the family, school, and religion integration variable indicators utilized in the study. In general, the highest correlations were noted within the family integration indicators and similarly within the religious integration variables. Additionally, school bonding correlated positively with all the other indicators

in the table and school activity score correlated with all but one other indicator.

Since no correlations above .62 were observed in any of the tables, multicollinearity was not evident (Tabachnick & Fidell, 2007). Therefore, all variables will be included as indicators of the latent variables in the SEM analysis.

Table 6

Correlation Matrix of Family, School, and Religious Integration Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1 - Anticipated Family Support	1.00											
2 - Emotional/Tangible Support	.55 ^c	1.00										
3 - Closeness to Family	.45 ^c	.46 ^c	1.00									
4 - Family Communication	.16 ^c	.19 ^c	.22 ^c	1.00								
5 - Activity Score	.10 ^b	.11 ^c	.07 ^a	.11 ^c	1.00							
6 - School Bonding	.24 ^c	.33 ^c	.20 ^c	.11 ^c	.15 ^c	1.00						
7 - Religious Service Attendance	.07 ^a	.12 ^c	.08 ^b	.01	.16 ^c	.22 ^c	1.00					
8 - Choice to Attend Religious Service	.07 ^a	.05	.11 ^c	.01	.07 ^a	.17 ^c	.10 ^b	1.00				
9 - Religious Service Participation	.01	.05	-.01	-.01	.15 ^c	.13 ^c	.34 ^c	.12 ^c	1.00			
10 - Church Related Activity Participation	.10 ^b	.12 ^c	.08 ^b	.05	.11 ^b	.17 ^c	.54 ^c	.14 ^c	.45 ^c	1.00		
11 - Choice to Participate in Church Related Activity	.05	-.01	.05	-.01	.12 ^b	.11 ^b	.03	.49 ^c	.11 ^b	.02	1.00	
12 - Religious Support – Emotional/Tangible	.16 ^c	.26 ^c	.21 ^c	.03	.06	.27 ^c	.24 ^c	.25 ^c	.28 ^c	.39 ^c	.18 ^c	1.00

Note: Correlations are weighted to be nationally representative of the given population and subpopulations in the contiguous 48 states of the United States, but are not adjusted for the sampling stratification or clustering of the data.

^ap < .05

^bp < .01

^cp < .001

SEM Analyses

Data Preparation and Assumptions. Data were prepared and screened using PASW version 18 (SPSS, 2009). All assumptions were adequately met. Univariate non-normality among continuous variables was examined using absolute values of skewness and kurtosis. No extreme skewness or kurtosis was observed based on absolute values of

skewness less than three and absolute values of kurtosis less than ten (Kline, 2005).

Though most measurement of the study variables were constrained, few outliers were observed. As the NSAL is a nationally representative sample, the outliers represent real cases of data, therefore were included in the analysis to maintain the integrity of the sample. Additionally, no multicollinearity among study variables was present. In the present study, SEM analyses were conducted using Mplus version 5 (Muthén & Muthén, 2007). The robust weighted least squares (WLSMV) estimator was utilized as it is the default estimator in Mplus when using categorical observed variables as factor indicators. WLSMV calculates weighted least square parameter estimates using a diagonal weight matrix with standard errors and mean- and variance- adjusted chi-square test-statistic that uses a full weight (Muthén & Muthén, 1998-2007). With the use of this estimator, the data missing methodology is pairwise present, which utilizes all available data for each pair of variables for analysis of the model. Additionally, the categorical data methodology handles any floor or ceiling effects for categorical outcomes (Muthén & Muthén, 1998-2007). All missing data were coded -99 to distinguish between actual and missing observations. The full sample of 1,170 was retained and the raw data file was utilized for both the CFA (measurement) and structural model analyses.

Goodness-of-Fit Indexes. SEM researchers identify three categories of goodness-of-fit indices to assess model fit: absolute fit, parsimony correction, and comparative or incremental fit indices (i.e. Brown, 2006). Absolute fit indices evaluate the overall difference between observed and model-implied covariances (Kline, 2005). Examples of absolute fit indices are the chi-square statistic (χ^2) and the standardized root mean square

residual (SRMR). Parsimony correction indices account for the degree of model parsimony while adjusting for model simplicity (Brown, 2006). Root mean square error of approximation (RMSEA) is a widely used example of this type of index. Comparative fit indices evaluate the absolute or parsimonious fit of an implied or proposed model relative to a baseline (null) model (Brown, 2006). Examples of this type of index include the comparative fit index (CFI; Bentler, 1990) and the non-normed fit index (NNFI; Bentler & Bonett, 1980) also known as the Tucker-Lewis Index (TLI; Tucker & Lewis, 1973). Brown (2006) recommends the examination of at least one fit index from the multiple categories of fit, based on common use in research literature, in addition to other aspects of model evaluation (i.e. parameter estimates). For the purpose of this study, and in accordance with the output provided using the WLSMV estimator in Mplus, the model χ^2 , CFI, TLI, and RMSEA will be reported and evaluated for both the measurement and structural models. The χ^2 statistic is sensitive to larger sample sizes and may be significant even if there is a small discrepancy between the observed and model-implied covariances (Kline, 2005). Therefore, the normed chi-square (NC; i.e. χ^2/df [degrees of freedom]) which reduces the sensitivity of the χ^2 to sample size will also be reported. Model fit criteria includes a non-significant model χ^2 value, an NC ratio less than 3, CFI and TLI greater than .90, and RMSEA less than or equal to .08 (Kline, 2005). Any model respecifications will be based on theory and prior research findings, in an attempt to improve model fit and parsimony (Brown, 2006).

CFA Model Specification. The hypothesized CFA model is presented in Figure

1. Based on research and theory, a six factor model was specified. Anticipated family

support (antsupp), family communication (famcom), and closeness to family (famclose) are reflective of the latent factor family integration. School bonding (schbond) and activity participation (actscore) reflect the latent factor school integration. Religious integration is represented by two latent constructs. Consistent with much of the research literature in measuring religious involvement, religious service attendance (relatt), religious service participation (relpart), and church related activity participation (relact) is reflective of the first latent factor. The second latent construct, religious commitment, is reflected by choice to attend religious services (relattc) and choice to participate in church related activity (relactc). This second construct has been less explored in literature and hypothesized to have an important, but possibly separate impact on well-being. Further examination of the emotional and tangible family and religious support variables revealed that the direction of causality or influence is from the variable to the family and religious latent factors, respectively, instead of from the latent factor to the observed variables. Therefore, they would be considered formative versus reflective indicators (Brown, 2006) and serve more of a covariate role in the model. As the interest of this researcher is to examine relationships between latent factors instead of relationships that may impact the predictor latent factors, both variables were excluded from further analysis.

Mental health will be modeled through two latent factors, positive psychosocial well-being (pswb) and negative psychosocial well-being (npswb). Self-esteem (slfest), mastery (mastery), and active coping (jhenry) reflect the latent factor pswb, and

perceived stress (pstress) and lifetime any disorder (lifeany) reflect the latent factor npswb. The six latent factors are hypothesized to covary with one another.

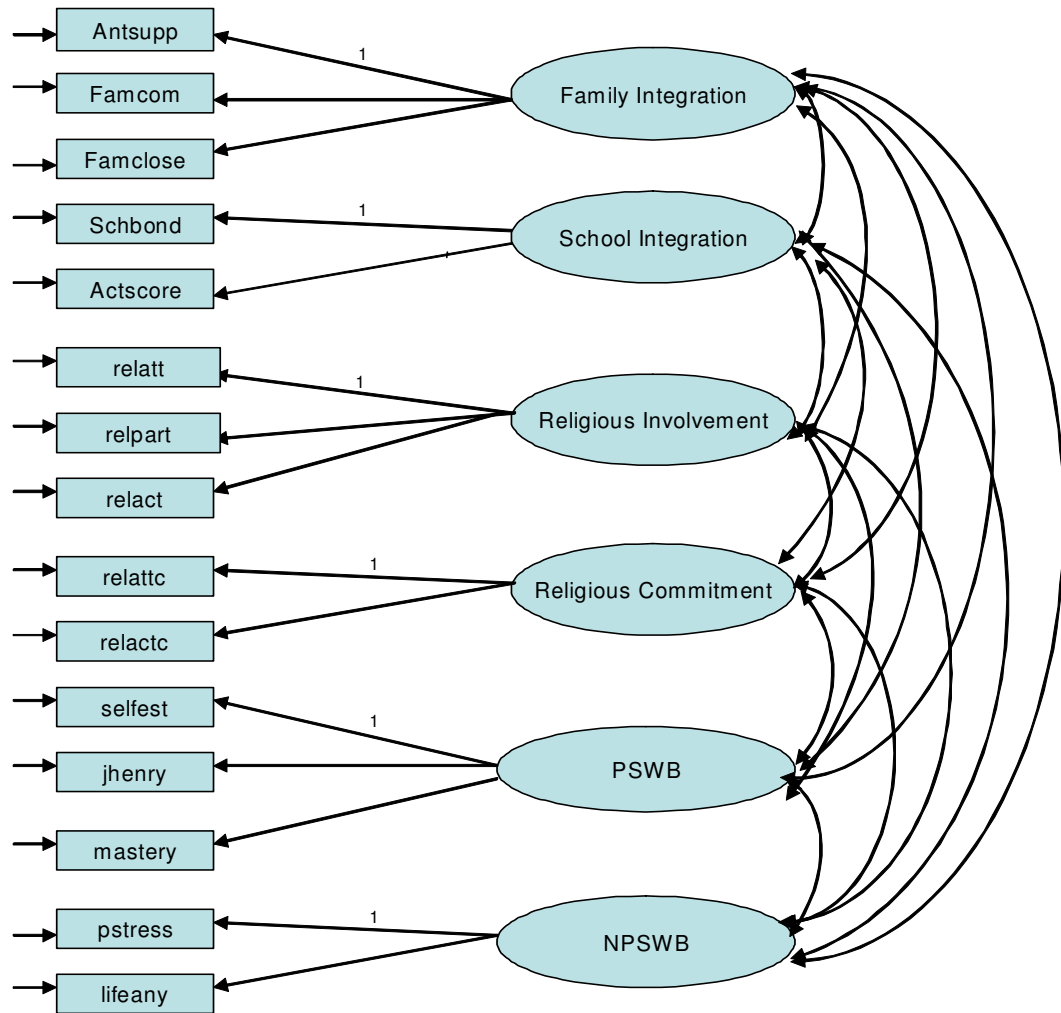


Figure 1. Hypothesized CFA model.

Kline (2005) recommends three criteria for model identification. First, the number of parameters (i.e. factor loadings, factor correlations) to be estimated is lower than or equal to the number of observations (unique pieces of information in the variance/covariance matrix). Examination of the current study model revealed that the

model was overidentified with 15 degrees of freedom. Second, latent factors need to have a scale or metric (i.e. measurement range), as they are not directly measured and in order for the statistical program to compute estimates for the factor. For this study, the first loading (parameter estimate) of each factor was fixed to 1 to set the scale for the factor. Lastly, each factor has to have at least two indicators. The current model satisfies this requirement.

CFA Model Evaluation. Each of the goodness-of-fit indices suggest that the six-factor model had an acceptable fit to the data, χ^2 (df=15) = 44.787, $p < .001$; CFI = .94, TLI = .95, RMSEA = .041. The chi-square value was significant, so the normed chi-square was calculated, $\chi^2/df = 2.98$. Consistent with Brown's (2006) suggestion for CFA analysis, further examination of the adequacy of the model included the analysis of the parameter estimates (factor loadings), R^2 , and factor covariances of the model.

Unstandardized and fully standardized parameter estimates (StdYX) are provided in Table 7. All standardized and freely unstandardized parameter estimates (factor loadings) were statistically significant ($p < .001$), suggesting that the latent factors significantly predict their observed outcome. Examination of standardized parameter estimates, however, revealed two reasonably low loadings. Both the family communication (famcom) indicator (.29) and activity participation (actscore) indicator (.28) were extremely weak reflections of their respective factors. Although there is variance in the research literature regarding minimum size of factor loadings, loadings of .30 or .40 and above have been considered adequate to define a factor (Brown, 2006). Though the factor loadings of both indicators are slightly lower than .30, the family communication

and activity participation indicators were retained in the model based on their importance to the study's hypotheses and reflection of the factor. All other parameter estimates were .40 or greater.

Table 7

Standardized and Unstandardized Parameter Estimates from the Six-Factor CFA Model

	StdYX ^a	S.E. ^b	Est/S.E. ^c	Unstandardized ^d
Family Integration BY				
Antsupp	0.739	0.042	17.598	1.000
Famcom	0.286	0.043	6.701	1.577
Famclose	0.593	0.033	17.753	1.167
School Integration BY				
Schbond	0.532	0.064	8.374	1.000
Actscore	0.278	0.062	4.485	1.512
Religious Involvement BY				
Relatt	0.756	0.033	22.936	1.000
Relpart	0.771	0.028	27.556	0.843
Relact	0.804	0.025	32.403	1.066
Religious Commitment BY				
Relattc	1.000	0.033	30.074	1.000
Relactc	0.684	0.027	25.775	0.684
PSWB BY				
Slfest	0.792	0.019	41.217	1.000
Jhenry	0.443	0.044	9.977	5.929
Mastery	0.669	0.022	30.321	1.144
NPSWB BY				
Pstress	0.835	0.039	21.593	1.000
Lifeany	0.520	0.035	14.807	0.077

Note: All standardized and freely estimated parameter estimates were significant at $p < .001$.

^aCompletely standardized parameter estimates

^bStandard error

^cTest statistic (z value)

^dUnstandardized parameter estimates

Table 8 presents information about the model's residual (error) variances and the R-squared (R^2) values. Residual variances account for the percent of variance in the parameter not explained by the latent factor, whereas the R^2 s indicate the strength of the

relationship between the indicators and their proposed factors or simply the percent of variance in the observed variable explained by the latent factor. The smallest percent

Table 8

CFA Model Residual Variances and R^2

	StdYX ^a	S.E. ^b	Est/S.E. ^c	Unstandardized ^d
Residual Variances				
Antsupp	0.454	0.062	7.304	0.085
Famcom	0.918	0.024	37.603	2.849
Famclose	0.648	0.040	16.331	0.256
Schbond	0.717	0.068	10.595	0.140
Actscore	0.923	0.034	26.784	1.511
Relatt	0.429	0.050	8.607	0.638
Relact	0.353	0.040	8.841	0.518
Slfest	0.374	0.030	12.286	0.062
Jhenry	0.804	0.039	20.407	15.047
Mastery	0.552	0.030	18.694	0.169
Pstress	0.303	0.065	4.685	19.553
R-Square				
Observed Variable	R^2			
Antsupp	0.546			
Famcom	0.082			
Famclose	0.352			
Schbond	0.283			
Actscore	0.077			
Relatt	0.571			
Reattc	0.467			
Relpart	0.595			
Relact	0.647			
Relactc	0.999			
Slfest	0.626			
Jhenry	0.196			
Mastery	0.448			
Pstress	0.697			
Lifeany	0.271			

Note: Residual (error) variances were not calculated for observed categorical variables; All computed residual variances were significant at $p < .001$.

^aCompletely standardized parameter estimates

^bStandard error

^cTest statistic (z value)

^dUnstandardized parameter estimates

of variance explained was between the school integration factor and the activity participation (actscore) variable ($R^2 = .08$) and the largest percent of variance explained was observed between the religious commitment variable and the choice to participate in

religious activities (relacte) variable ($R^2 = .99$). The religious integration factors appeared to be strongest in explaining the variance in their respective observed variables. In general, the factor loadings and the R^2 s revealed that the observed variables were adequate indicators of the latent factors.

Additionally, examination of covariance between the factors in the model was examined. The results indicate strong relationships between the two mental health factors (.86) and between the two religion factors (.80) (Table 9). Kline (2005)

Table 9

CFA Model Factor Covariances

	StdYX ^a	S.E. ^b	Est/S.E. ^c	Unstandardized ^b
School Integration WITH Family Integration	0.617	0.081	7.631	0.046
Religious Involvement WITH Family Integration	0.140	0.041	3.395	0.041
School Integration	0.574	0.064	8.981	0.124
Religious Commitment WITH Family Integration	0.233	0.072	3.227	0.074
School Integration	0.609	0.076	7.960	0.143
Religious Behavior	0.800	0.025	31.622	0.731
PSWB WITH Family Integration	0.439	0.053	8.230	0.045
School Integration	0.743	0.091	8.133	0.057
Religious Involvement	0.050 ^e	0.047	1.059	0.015 ^e
Religious Commitment	0.207	0.068	3.052	0.067
NPSWB WITH Family Integration	-0.432	0.061	-7.086	-0.926
School Integration	-0.560	0.073	-7.667	-0.884
Religious Involvement	-0.066 ^e	0.046	-1.447	-0.406 ^e
Religious Commitment	-0.130	0.058	-2.255	-0.873
PSWB	-0.862	0.040	-21.661	-1.871

Note: All standardized and freely estimated parameter estimates were significant at $p < .001$, unless otherwise noted.

^aCompletely standardized parameter estimates

^bStandard error

^cTest statistic (z value)

^dUnstandardized parameter estimates

^eNot significant

suggests that high correlations ($> .85$) can occur because of issues with model specification or underidentification, both of which are possible when a factor has only two indicators. In addition, Brown (2006) states that high correlations may suggest that two factors are representing the same construct. In this study, both the positive and negative psychosocial well-being latent factors are representing different but interrelated aspects of mental health. Therefore, despite the high correlations, both factors were retained in the model.

Finally, modification indices were examined to determine if any improvements could be made to the model. Although the Mplus output suggested modifications that could statistically improve the model fit (i.e., reduce chi-square), no modifications appeared to be justifiable based on prior research and theory (Brown, 2006). The final CFA model is presented in Figure 2. This model will be used as the foundation for the development of the subsequent structural model.

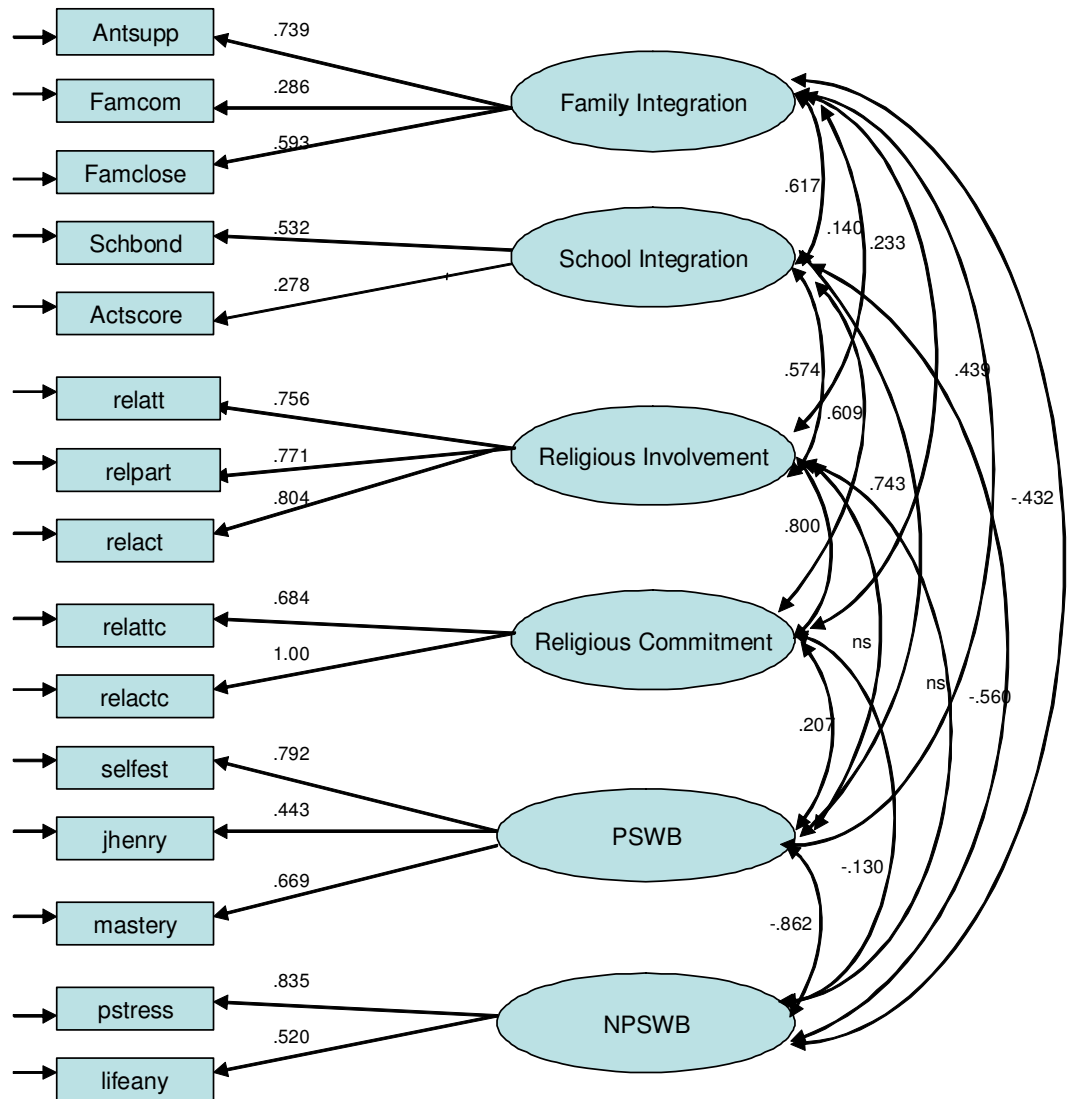
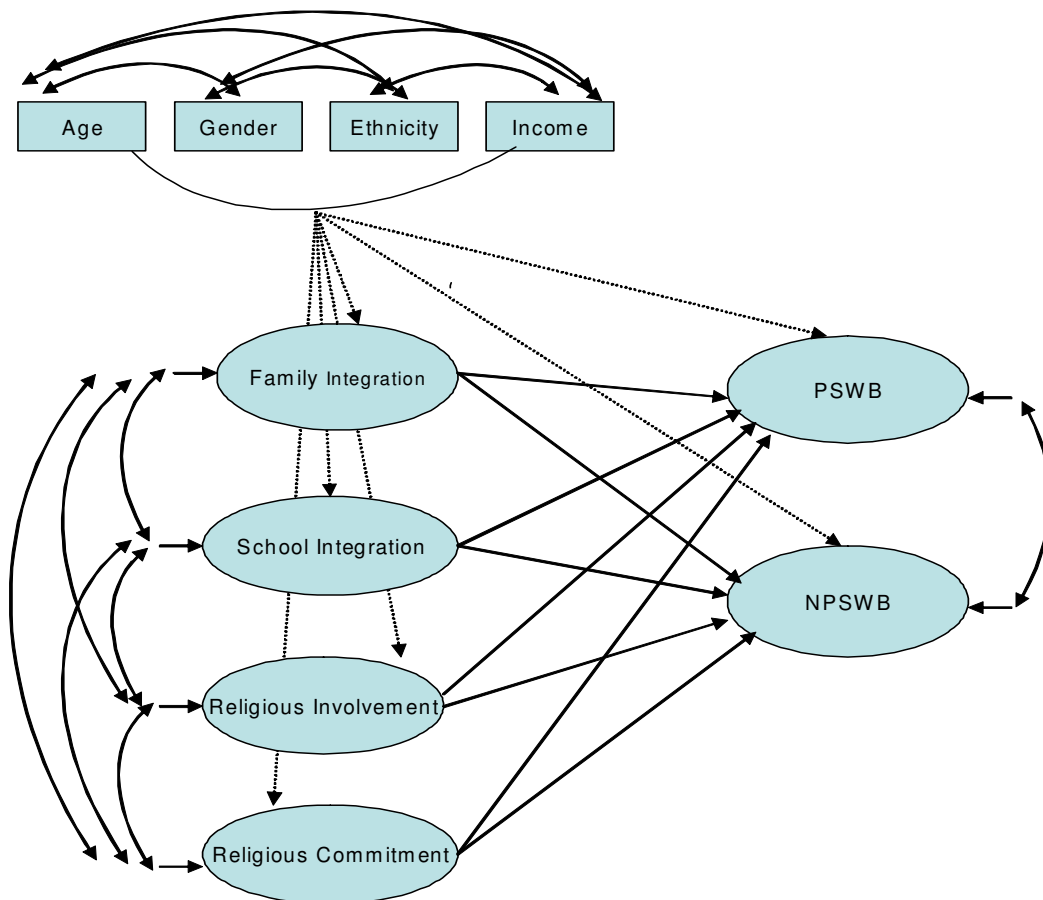


Figure 2. Final CFA Model. Completely standardized parameter estimates are shown. All paths were significant at $p < .05$, unless designated ns. Values for error covariances are not shown.

Structural Model Specification. The initial structural model was specified with direct paths from all control variables (covariates) to all latent factors and direct paths from the family, school, and religion factors to both mental health factors (Figure 3). All latent variables are considered endogenous in this portion of the model due to the causal paths from the control variables to the factors. The disturbances (residuals) of the family,

school, and religion factors will be allowed to covary in this model as the CFA revealed that there is some relationship between these factors. Similarly, the disturbances of the mental health factors will be allowed to covary as it was established in the measurement model that strong relationships exist between these two factors. Additionally, all control variables (age, gender, ethnicity, income) will initially be allowed to covary.



Note: All latent factors are regressed on all control variables

Figure 3. Hypothesized structural model.

The study hypothesized that controlling for relevant demographic variables, family, school, and religious integration would positively impact an adolescent's mental health, as defined by the presence of positive psychosocial well-being and the absence of negative psychosocial well-being. It was expected then, that positive psychosocial well-being would be significantly predicted by higher family integration and school integration and greater levels of religious involvement and commitment. Similarly, it was expected that negative psychosocial well-being would be significantly predicted by lower family and school integration and lower levels of religious involvement and commitment. It was also expected that the demographic control variables may have some impact on these relationships. Evaluation of the hypothesized structural relationships between latent factors will be made using the final model with all non-significant paths from controls to latent factors and non-significant covariances set to zero.

Structural Model Evaluation. Each of the goodness-of-fit indices suggests that the initial structural model has a satisfactory fit to the data, χ^2 (df=17) = 47.673, $p < .001$, CFI = .93, TLI = .93, RMSEA = .039. The chi-square value was significant, so the normed chi-square was calculated, $\chi^2/\text{df} = 2.8$. This model showed a slight reduction in the CFI and TLI from the measurement model, but fit indices were acceptable based on previously established criterion (i.e., Kline, 2005). Improvement in model parsimony was conducted by setting all non-significant control variable paths to latent factors and any non-significant error covariances or disturbances to zero, essentially removing the influence of those paths from the models estimation. The fit indices for this final model revealed just a slight difference in the chi-square from the previous model, χ^2 (df=17) =

46.199, $p < .001$, CFI = .93, TLI = .93, RMSEA = .038. The chi-square value was significant, so the normed chi-square was calculated, $\chi^2/df = 2.7$ (see Table 10 for chi-square and fit indices from all three models).

Table 10

Summary of Data Model Fit Statistics

Model	χ^2	df	NC (χ^2/df)	CFI	TLI	RMSEA
Final CFA Model	44.787	15	2.98	.94	.95	.041
First Structural Model	47.673	17	2.80	.93	.93	.039
Final Structural Model	46.199	17	2.72	.93	.93	.038

Note: NC= normed chi-square; CFI = comparative fit index; TLI =tucker lewis index; RMSEA=root-mean-square error or approximation.

Examination of Study Hypotheses. Table 11 presents the statistically significant structural path coefficients and R^2 from the final structural model. The statistically non-significant structural paths from the predictor latent factors to the outcome latent factors are included for the purpose of assessing the study's hypotheses. All findings will be discussed based on the fully standardized (StdYX) structural path coefficients.

Family Integration. Bivariate analyses revealed statistically significant correlations between family integration and psychosocial well-being variables, with the greatest correlations observed between the family support and well-being variables. Additionally, the CFA analysis revealed satisfactory factor loadings for two of the three measured family variables, closeness and anticipated support. The loading of the third variable, family communication, was weak but was retained in the study based on its importance to the theoretical model. The family integration factor explained the largest

Table 11Standardized and Unstandardized Coefficients and R^2 from the Final Structural Model

	StdYX ^a	S.E. ^b	Est/S.E. ^c	Unstandardized
PSWB ON				
FamInt	.222	.084	2.651	.234
SchInt	.497	.096	5.200	.520
Religious Involvement	-.438	.123	-3.551	-.156
Religious Commitment	.291	.146	1.990	.136
NPSWB ON				
FamInt	-.363	.076	-4.800	-7.997
SchInt	-.294	.075	-3.941	-6.442
Religious Involvement	-.012 ^d	.123	-0.099	-0.091
Religious Commitment	.114 ^d	.152	0.749	1.113
NPSWB ON				
Gender	.118	.038	3.142	1.597
FAMINT ON				
Age	-.141	.043	-3.285	-0.031
Income	.131	.031	4.187	0.037
SCHINT ON				
Gender	.138	.046	2.993	0.085
RELIGIOUS INVOLVEMENT ON				
Age	-.127	.038	-3.363	-0.082
Ethnicity	-.062	.013	-4.627	-0.227
Gender	.173	.033	5.302	0.313
RELIGIOUS COMMITMENT ON				
Ethnicity	-.097	.028	-3.421	-0.269
Gender	.105	.036	2.926	0.145
R-Square				
Latent Variable	R^2			
Family Integration	.04			
School Integration	.02 ^d			
Religious Involvement	.05			
Religious Commitment	.02			
PSWB	.42			
NPSWB	.29			

Note: All standardized and unstandardized coefficients and R^2 are significant at $p < .05$ unless otherwise noted.

^aCompletely standardized parameter estimates

^bStandard error

^cTest statistic (z value)

^dNot statistically significant

amount of variance (55%) in the anticipated support variable. The findings of the SEM analysis revealed that even when age and income are taken into account, the relationship between family integration and both positive and negative psychosocial well-being is statistically significant. Family integration is positively related to better psychosocial well-being and protects against lower psychosocial well-being in Black adolescents, supporting the hypothesis that family integration contributes positively to adolescent mental health.

School Integration. Similar to family integration, bivariate analyses revealed statistically significant correlations between school integration and psychosocial well-being variables, with school bonding showing stronger correlations than the school activity score variable. Additionally, the CFA analysis showed that the school activity score was weakly reflective of the school integration factor, while school bonding was satisfactorily reflective of the factor. However, school activity score was retained in the study based on its importance to the construct of the school integration factor. The school integration factor explained 28% of the variance in the school bonding variable, compared to 8% in the school activity score variable. The SEM analysis illustrated that even when gender was taken into account in the model, the relationship between school integration and both positive and negative psychosocial well-being is statistically significant. School integration is positively related to better psychosocial well-being and protects against lower psychosocial well-being in Black adolescents, supporting the hypothesis that school integration contributes positively to adolescent mental health.

Religious Integration. The statistically significant bivariate correlations between religious integration and psychosocial well-being variables were smaller than the correlations observed between family and school integration and psychosocial well-being variables. For the most part, the strongest relationships were observed between the religious choice to attend/participate variables and the psychosocial well-being variables. The CFA analysis revealed that all the religion variables were strongly reflective of their respective religious integration factors. The religious involvement factor explained between 47 and 60% of the variance in religious attendance and participation variables, while the religious commitment factor explained 63 – 99% of the variance in the two religious choice variables. Results of the SEM analysis revealed that even when accounting for age, ethnicity, and gender, a statistically significant inverse relationship was present between religious involvement and better psychosocial well-being. Findings suggest that the lower the religious involvement the greater the positive psychosocial well-being. Additionally, there was a statistically significant and positive relationship between greater religious commitment and better psychosocial well-being even while accounting for ethnicity and gender. No statistically significant relationships were observed between religious involvement or religious commitment and lower psychosocial well-being. The study hypothesis is only partially supported by these findings, suggesting that religious integration, as represented by religious commitment supports the positive aspect of an adolescent's mental health.

Mental Health. Overall, mental health, as represented by positive and negative aspects of psychosocial well-being, was positively impacted by family and school

integration and only slightly impacted by religious integration. The results showed that 42% of the variance in the positive psychosocial well-being factor and 29% of the variance in the negative psychosocial well-being factor was due to the family, school, and religious factors, and any significant control variables. The final structural model with standardized coefficients and significant covariances is presented in Figure 4.

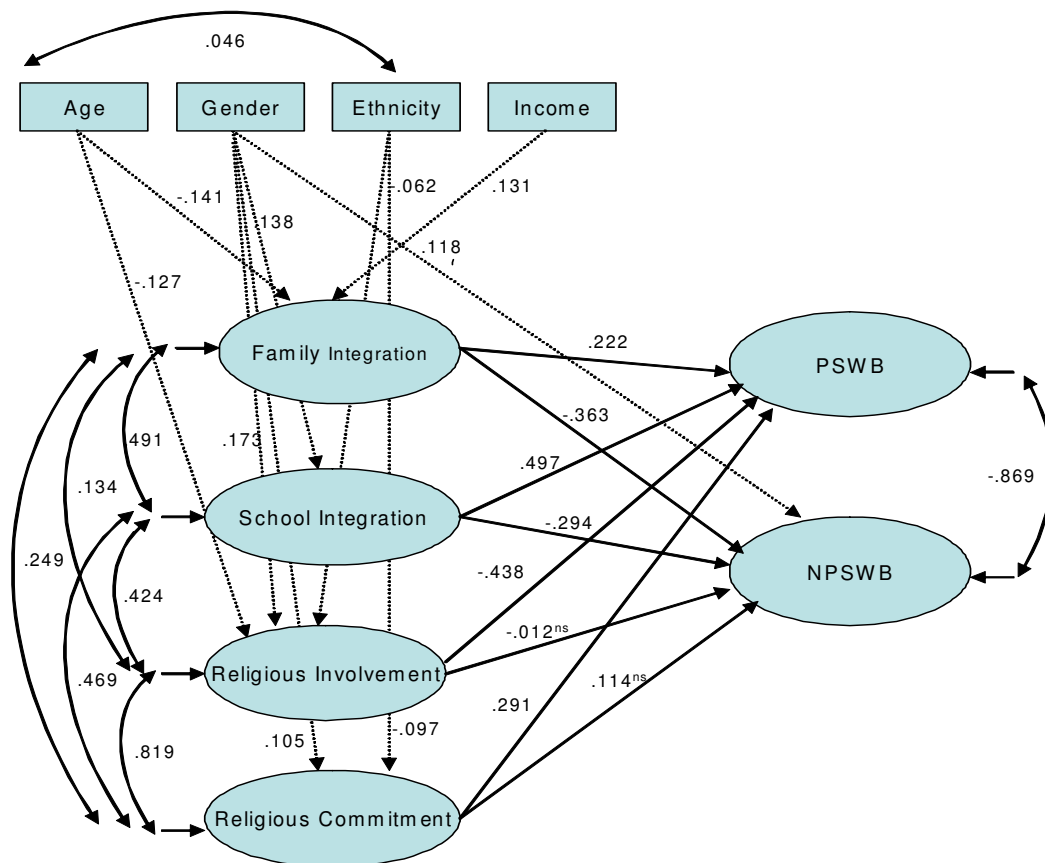


Figure 4. Final structural model. Completely standardized parameter estimates are shown. All paths were significant at $p < .05$, except the two designated as ns.

Summary

This chapter presented the findings of the descriptive, bivariate, and multivariate analyses of the subset of NSAL-A data utilized in the study. All findings were presented using the complex sample design corrected and/or weighted statistics, where applicable. Bivariate findings support significant correlations between the measured independent variables and the measured outcome variables. CFA and SEM analyses produced acceptable models for interpretation of the measurement and structural models. The CFA analysis revealed that most variables were acceptable reflections of their respective factors. The results of the SEM analysis revealed support for the study's hypotheses. The next chapter will provide a summary of the study including a brief review of the first four chapters. Additionally, conclusions about the findings relative to previous literature will be discussed. The next chapter will also present the limitations of the study, recommendations for future research, and implications for theory, practice, research, and policy.

Chapter 5: Summary and Conclusions

According to the NASW (2008), the primary mission of the social work profession is to enhance human well-being, with particular attention given to empowering those who are vulnerable. As the developmental period of adolescence is indicative of considerable biological, cognitive, and psychosocial changes (Crockett & Peterson, 1993), adolescents can be considered a potentially vulnerable group. According to the literature, most adolescents navigate this life stage without major difficulty (Peterson, 1988). However, empirical research substantiates the negative social and developmental trajectories for today's generation of adolescents (Small & Covalt, 2006). Statistics revealed that much is known about the mental ill-health of adolescents. For example, the USDHHS (1999) reported that one in five adolescents experience significant symptoms of emotional distress and approximately 10% of children and adolescents suffer from emotional disorders which impair their personal, school, and family lives. Conversely, much less is known about positive mental health in adolescents, those teens who are thriving (Keyes, 2006) and prepared for life (Zaff et al., 2002). In light of the financial burden (i.e., Ringel & Sturm, 2001) and low use (i.e., USDHHS, 1999) of mental health treatment services, additional strategies need to be considered as a part of a comprehensive approach to address adolescent mental ill-health and support the development of positive psychosocial well-being. Kazdin (1993) has argued that mental health incorporates "the absence of dysfunction in psychological, emotional, behavioral, and social spheres.... optimal functioning or well-being in psychological and social domains" (p. 128). Mental health promotion, which has been less explored in the

literature, concentrates on fostering this optimal condition of well-being, inclusive of positive qualities such as self-efficacy, self-esteem, and a sense of coherence, apart from seeking relief from difficulties or disorders (Magyary, 2002; Muñoz et al., 1996; Weisz et al., 2005).

Adolescents are shaped by constant interactions with others in family, peer, community, and the larger physical and cultural environments (Compas & Millstein, 1993; Knopf et al., 2008), therefore an examination of the social contexts which may positively contribute to their health and well-being or negatively impact it was important to explore. As such, Durkheim's theory of social integration was utilized to examine the relationship between adolescent involvement in and attachment to social groups and their psychosocial well-being. Through his research, Durkheim discovered that weak attachments to societal institutions results in lower psychosocial well being, and likewise stronger attachments and shared values and goals among members of a social group, derived from the quantity and intensity of their interaction, encourages well-being (Bjarnason, 1998; Durkheim, 1951; Stark & Bainbridge, 1996; Thorlindsson & Bjarnason, 1998). Subsequently, Durkheim's social integration theory was employed as a framework to examine how adolescent integration into family, school, and religion, three relevant social contexts to adolescents, may serve to positively impact their psychosocial well-being.

The conceptual literature on family, school, and religion evinced the important of these social environments on the lives of adolescents. Review of the empirical literature pointed to a significant protective effect of family, school, and religion on risk behaviors,

educational outcomes, and negative psychological functioning. Though limited, research revealed a mainly positive influence of family, school, and religion on aspects of psychosocial well-being (i.e., self-esteem), prosocial values and behaviors, and education and career outcomes. Additionally, the literature demonstrated that though Black adolescents are highly represented in groups at greater risk for the development of mental ill-health, such as low-income adolescents (i.e., Vandivere et al., 2004), they are underrepresented in mental health research (i.e., USDHHS, 2001a).

Purpose

A comprehensive approach to address mental health in adolescence incorporates research on promotion, prevention, and treatment. As mental health promotion has received the least amount of attention, and knowledge about Black adolescent mental health is lacking, the purpose of this study was to explore the impact of adolescent social contexts on the mental health of Black adolescents. Specifically, through secondary data analysis, this study examined the relationships between adolescent integration into three major social institutions (family, school, and religion) and their mental health. Following Kazdin (1993), mental health was conceptualized as both the presence of positive psychosocial well-being (i.e., self-esteem) and lower psychosocial well-being (i.e., stress).

Methods and Study Hypotheses

This exploratory study employed a cross-sectional survey design to conduct a secondary analysis of the NSAL-A, a national probability sample of African American and Caribbean Black adolescents. The NSAL-A is a part of the NSAL (Jackson et al.,

2004), which provides extensive data on mental disorders and the mental health of adult Americans of African ancestry. As the NSAL utilized a stratified and clustered sample design along with sample weights to obtain a nationally representative sample, it is classified as a complex sample survey (Heeringa et al., 2006). Based on this designation, statistical analysis programs were selected based on their ability to account for the complex sample survey design of the study, where possible.

The first hypothesis posited that controlling for relevant demographic variables, family integration would be positively related to mental health in Black adolescents. The second hypothesis postulated that school integration would be positively related to mental health in Black adolescents, while accounting for relevant controls. The third hypothesis conjectured that controlling for relevant demographic variables, religious integration would be positively related to mental health in Black adolescents.

Discussion

Family. Family has been identified as the primary socialization agent and a key form of social capital for children and adolescents. Results of the current study support the conceptual as well as empirical literature substantiating the effect of family support and closeness on various aspects of psychosocial well-being, specifically for a Black adolescent population. The conceptual literature postulated that family support, a cohesive family atmosphere, close relationships with family, and being valued and accepted by others, may promote better psychosocial outcomes, such as higher self esteem, efficacy, and self-confidence, healthy decision making, and protect the adolescent from problem behavior and mental ill-health (Aydin & Oztutuncu, 2001;

Harker, 2001; Stice et al., 2004). The findings of the present study illustrated that even when accounting for age and income, the more an adolescent is integrated into their family, the better their positive psychosocial well-being and similarly, greater family integration protects against lower psychosocial well-being. These results are consistent with previous empirical research on the promotive (i.e., Benda & Corwyn, 2000; Harker, 2001) and protective (i.e., Aseltine et al., 1994; Resnick et al., 1997) impact of family integration indicators, such as parent closeness and support, on better psychosocial well-being and lower psychosocial well-being outcomes in mostly heterogeneous samples of adolescents, respectively. The few studies that examined these relationships in Black adolescent populations utilized smaller, more homogenous samples of adolescents and examined mostly the protective impact of these factors on risk behaviors and lower psychosocial well-being (i.e., Bean et al., 2006; Margolin, 2006; McCabe et al., 1999). As noted in Chapter 2, studies examining family factors as a promotive mechanism for aspects of optimal psychosocial well-being were limited and only one study examined the relationship in a sample of Black adolescents. Alliman-Brissett and colleagues (2004) reported that career related parent emotional support predicted career self-efficacy for the Black adolescents in their study. The current research contributes new information about family integration, measured by multiple indicators, as a promotive influence on psychosocial well-being, and uniquely signifies the importance of this factor for better psychosocial well-being in a nationally representative sample of Black adolescents.

Additionally, the results of the present study elucidated that family communication was a weak representation of the family integration factor. Given the

research that suggests that extended family relationships may be an important resource for Black adolescents (i.e., Wilson, 1989), this was somewhat unexpected. It is possible that the frequency of communication with extended family members may not be an important determinant of an adolescent's integration into their primary family unit. Stated differently, low communication with extended family members may not negatively impact the level of integration a Black adolescent experiences with their primary family members.

Generally, results of the current study lend support to the first hypothesis that family integration contributes positively to adolescent mental health, as measured by both positive and negative aspects of psychosocial well-being.

School. School has been identified as a key socializing agent in the lives of adolescents, secondary to family (Simons-Morton et al., 1999). Both school based activity participation and school bonding have been identified as being particularly important to adolescents. The present study findings lend support to the second hypothesis that school integration contributes positively to adolescent mental health, as measured by both positive and negative aspects of psychosocial well-being. Results of the current research support conceptual as well as empirical literature substantiating the impact of school integration indicators such as school activity participation and school bonding on both positive and negative aspects of psychosocial well-being. Previous review of the literature suggested that involvement in structured, productive activities may promote pro-social behavior and a sense of group identification, provide a positive medium for self-expression and identity development, foster and enhance new skills and

interests, and provide networking and civic opportunities, resulting in present and future academic and career successes, and protection against risk-related actions (Eccles et al., 2003; Fredricks & Eccles, 2005; Zaff et al., 2003). Additionally, the literature elucidated that positive school bonds and connections could promote academic achievement and other positive behaviors and reduce the likelihood of antisocial and health risk behaviors (Bonny et al., 2000; Maddox & Prinz, 2003; Simons-Morton et al., 1999), which may in turn result in better psychosocial outcomes. Furthermore, aspects of bonding to school, such as positive relationships with teachers and other school staff, can provide a supportive context within which adolescents can thrive (Murray & Greenberg, 2000), and develop positive coping and adaptive mechanisms (Resnick et al., 1997).

The findings of this study illustrated that even when accounting for gender, the more an adolescent is integrated into their school, the better their positive psychosocial well-being and similarly, greater school integration protects against lower psychosocial well-being. These results are consistent with the sparse empirical research on the positive (i.e., Erkut & Tracy; Murray & Greenberg, 2000) and limited research on the protective (i.e., Fredricks & Eccles, 2005; Miamon & Kuhl) effect of school integration indicators, such as school activity participation and school bonding, on better psychosocial well-being and lower psychosocial well-being outcomes in diverse groups of adolescents, respectively. The one study that examined the impact of school factors as a protective influence in a small sample of younger Black adolescents found no relationship between school activity involvement and internalizing disorders (Margolin, 2006), though Tracy and Erkut (2002) found that sports involvement, mediated by physical well-being,

positively impacted self-esteem for the Black girls in their study. Among the few studies reviewed that focused on school as promotive to psychosocial well-being, no studies utilized a national Black adolescent sample, although Jordan (1999) highlighted the positive impact of individual sports on the self-concept of the Black adolescents in his study using a nationally representative adolescent sample. Subsequently, the present results add to the knowledge of the promotive impact of school integration on psychosocial well-being, which has been minimally investigated. Importantly, the study results are also interpreted in light of their impact on a national sample of Black adolescents, adding to the body of knowledge of these relationships in this understudied adolescent subgroup.

The findings also elucidated that school activity participation, measured by participation in any one of five extracurricular school activities, was a weak representation of the school integration factor. It is possible that school activity participation may be better represented by each of the individual school activities (i.e., sport participation) or actual time spent on the activity (i.e., Jordan, 1999).

Religion. In the context of adolescent development, religion has been cited as a significant agent of socialization (Donahue & Benson, 1995; Wallace Jr. & Forman, 1998). The results of the current study did not support much of the conceptual or empirical literature regarding the significant impact of religion on the lives of adolescents. From the previous review of the conceptual literature, religion researchers suggested that religion may serve as a protective resource for negative functioning and behavior as well as a promotive source of psychosocial well-being and positive

developmental outcomes (i.e., Ball et al., 2003; King & Furrow, 2004). The first conceptualization suggested a social control function of religion where through regular participation, communication, and interaction among group members the values, norms, and standards of the group are reinforced, thereby reducing risk of opportunity and proclivity to engage in problem behaviors, and protecting against negative psychological functioning (Milot & Ludden, 2009; Regnerus, 2003a). The second conceptualization conjectured that participation in religious organizations can promote a sense of shared values and beliefs, positive social connections, and an exchange of caring and support (Milot & Ludden, 2009; Schnittker, 2001). This in turn may foster coping mechanisms that help adolescents successfully handle typical as well as difficult life experiences, and provide a framework within which they are encouraged and motivated to make choices that result in more beneficial or successful outcomes (Regnerus, 2003a; Smith, 2003).

Even when accounting for age, ethnicity, and gender, lower religious involvement predicted greater psychosocial well-being. This finding contradicted other research (i.e., Bagley & Mallick, 1997) and was a surprising and unexpected finding, especially in light of literature that suggests that African American adolescents, in comparison to their non-Black peers, view religion as more important (i.e., C. Smith et al., 2002). The literature does support the absence of a relationship between religious involvement and psychosocial well-being indicators, like self-esteem (i.e., Milot & Ludden, 2009), but only one other study suggested that an inverse relationship existed between the two variables. Though Ball and colleagues (2003) reported that the highest levels of self-esteem were evident for Black female adolescents who attended religious

activities a few times a month, the study also showed that the lowest levels of self-esteem were reported for those who never attended and those who attended nearly everyday. Similar to Ball and colleagues, this study found that lower levels of psychosocial well-being were related to greater religious involvement in a larger, national sample of Black adolescents. It is possible that the adolescents in the present study experience religion as an agent of social control, which encourages conforming to group (i.e., family) expectations, thereby limiting their ability to make their own choices and decisions about religious activity attendance and participation.

The study also found no relationship between religious involvement and lower psychosocial well-being, even while taking into account the relevant control variables. This was also an unexpected finding given the research supporting the protective influence of religion on lower psychosocial well-being in smaller (Wright et al., 1993) and nationally representative samples (i.e., Nonnemaker et al., 2003) of adolescents. However, the results were consistent with Milot and Ludden (2009) who found no relationship between religious attendance and depression among rural adolescents. Additionally, M. J. Pearce and colleagues (2003) found that the impact of religious service and religious activity attendance did not persist in the presence of personal religiosity. It is possible, in this study, that religion played less of a role as a protective influence in the lives of Black adolescents, in the context of other key socialization agents like family and school.

Furthermore, while accounting for ethnicity and gender, greater religious commitment predicted better psychosocial well-being but was unrelated to lower

psychosocial well-being. Only one other study reviewed examined this construct in relation to adolescent well-being. The study found that greater desire or commitment to attending religious services and activities (versus being forced to participate) was associated with less depressive symptoms in a small sample of mostly white adolescents (Schapman & Inderbitzen-Nolan, 2002). The positive finding for religious commitment in this study presents new information on adolescents desire to attend religious services and activities through choosing to go versus being forced to go. The result suggests that for Black adolescents, making the choice to attend is important to the development of better psychosocial well-being outcomes such as self-esteem and mastery. This concept is similar to the idea of self-determination, a highly esteemed value in social work, which encourages the development of a sense of autonomy and freedom of choice. Overall, the current study hypothesis is only partially supported by these findings, suggesting that religious integration, as represent by religious commitment, supports the positive aspect of an adolescent's mental health. Consequently, religion as a promotive influence on the psychosocial well-being of Black adolescents is only minimally illustrated in this study.

Summary. Overall, the present study supports the body of evidence that social contexts are important predictors of the mental health of Black adolescents, as represented by positive and negative aspects of psychosocial well-being. Several contributions to the research literature are illustrated by the current study findings. First, the study adds to the literature on mental health promotion by examining family, school, and religion as positive influences on psychosocial well-being. The study results support the promotive influence of all three aspects of social integration on Black adolescents'

psychosocial well-being. Second, the study tested the model using a nationally representative sample of Black adolescents. The review of the literature evinced sparse research examining the positive impact of family, school, and religion on better psychosocial well-being in a Black adolescent population. Within the studies reviewed, Black adolescents were only minimally represented in heterogeneous groupings of adolescents or smaller samples of Black adolescents were utilized for investigation. This research provides a critical addition to the limited body of literature on factors that promote mental health within the Black adolescent population, a group that has been previously underrepresented in mental health research. Third, although past studies have shown that discrete measures of family, school, and religion positively impacted the psychosocial well-being of adolescents, this study examined multiple measures of each social context through latent constructs of social integration. Fourth, in contrast to the majority of studies reviewed, the current study utilized a structural equation model approach which tests relationships within one model, allowing for the measurement error of each latent construct. Subsequently, family, school, and religious integration were tested to determine the impact of each latent predictor factor on both mental health latent outcome factors within a system of interrelationships among the predictor latent factors. . Finally, the design of the study lends to the generalizability of the findings to youth of similar backgrounds. Consistent with the majority of other studies, the current study used cross-sectional data for analysis. However, in contrast to many of the other studies, primarily research using samples of Black adolescents only, a national probability sample was utilized for the current secondary data analysis.

Generally, mental health, as represented by positive and negative aspects of psychosocial well-being, was positively impacted by family and school integration and only slightly impacted by religious integration for the Black adolescents in the current study. School integration was a stronger predictor of positive psychosocial well-being, whereas family integration was a stronger predictor of negative psychosocial well-being. The results showed that 42% of the variance in the positive psychosocial well-being factor and 29% of the variance in the negative psychosocial well-being factor was due to the family, school, and religion factors, and any significant control variables.

Limitations

Although the current study evinced significant relationships among family, school, religious integration, and psychosocial well-being variables, a number of key limitations must be recognized. First, the study utilized a cross-sectional survey design; consequently no causal inferences can be made about the effects of family, school, and religious integration on mental health. For example, it is possible that adolescents who have a strong sense of self worth and feel like they have control over their lives may also tend to report a closer relationship with teachers at school or are more likely to feel confident enough to participate in school activities. This limitation is exacerbated by the fact that some of the data collected for the study was based on retrospective responses and all data were collected via self-reports. A longitudinal study analysis, where data on family, school, and religious integration are collected before data on psychosocial well-being outcomes may prove beneficial to helping to address issues with the cross-sectional survey design limitation. This type of study could also be useful to examine how the

significant relationships change over time. Additionally, collecting parent and school reports or observations may help to triangulate the data collected via self-report surveys.

Second, although the findings are generalizable to other adolescents of similar backgrounds, they are not generalizable to a broader non-Black adolescent population. It was not the intent of this research to examine cross-group comparisons, however studying other groups of adolescents may prove worthy to determine if these relationships hold across other subgroups of adolescents or across adolescents in general.

Third, as noted in Chapter 3, this study was a secondary analysis of survey data. Data collected for the purpose of a prior study may not adequately represent the constructs that a researcher is interested in exploring and subsequently measuring in a current study (Kiecolt & Nathan, 1985). As was evidenced in the measurement and subsequent structural analysis, two variables loaded weakly on their respective latent factors. Although they were maintained in the study due to their importance to the research and hypotheses of the study, low loadings suggest weak relationships to the latent factors, and according to Brown (2006), should not necessarily be considered meaningful indicators of their proposed construct. Additionally, the choice of variables to represent the latent constructs were somewhat limited by the data that were readily available.

Future Research

Aligned with some of the limitations presented, future studies could utilize a longitudinal design to examine the long term effects of early adolescent social integration

on later psychosocial well-being outcomes, including how these relationships may change over time. Additionally, parent and teacher observations or reports would help to strengthen the findings from adolescent retrospective or self reports. Other studies could also examine the relationships of interest in different sub-groups of adolescents or a broader group of adolescents to explore how these social contexts may impact the psychosocial well-being of adolescents in a consistent or contradictory way.

Furthermore, future research, using the current study as a foundational model, could examine within group differences based on ethnicity, gender, income, and age, based on the significance of some of those demographic characteristics in the model, and the research literature that suggests differences in some of the integration factors (i.e., females exhibit more frequent religious attendance than males). Additionally, the current structural model could be further explored through examination of only one or two of the social context factors at a time. This may help determine, for example, if the relationships between religious integration and psychosocial well-being factors varies when school is not estimated in the model.

Implications of the Findings

Theory. The use of Durkheim's theory of social integration in this study contributed to our understanding about how family, school, and to a lesser degree religious integration related to the psychosocial well-being of Black adolescents. As noted in Chapter 2, this theory was originally used with aggregate data and to emphasize the influence of social groups as a protective mechanism for adverse outcomes. Although not a direct test, per say, the present study recast the theory on an individual social

integration level to examine how social contexts within which adolescents develop potentially impact their psychosocial well-being. The present study's application of the theory is consistent with the social work person in environment perspective, and extends the theory beyond its established utilization, substantiating its use in social work research.

Practice. The results of the study have implications for practice on direct service as well as program levels. On a direct service level, social workers could utilize the results of the study to add to or enhance their existing strategies for individual or group mental health work with Black adolescents. Both family and school integration significantly promoted better psychosocial well-being while also protecting against negative well-being outcomes. Subsequently, a school social worker could design strategies to enhance aspects of school integration, such as school bonding, in order to promote the psychosocial well-being of the Black adolescents with whom he/she may be working. Additionally, a social worker providing mental health services in a community based setting could engage the family of an adolescent in developing approaches to enhance aspects of family integration, such as family closeness and support. Furthermore, as Black adolescents are at greater risk for the development of mental disorders, due to their disproportionate representation in groups at high risk such as low income populations, the identification of factors that prevent mental ill-health are helpful to social workers who may be delivering mental health services to this population. Additionally, the identification of school, family, and religious factors significant to the promotion of mental health can inform the design and further development of evidenced based promotion, prevention, and treatment interventions as well as culturally consonant

interventions that enhance adolescent psychosocial well-being, particularly in Black adolescent populations. Interventions that are based in research and are culturally relevant may alleviate some of the low usage of mental health services by adolescents in general, and minority adolescents in particular.

Research. Mental health promotion has received less attention in research, compared to prevention or treatment. Consistent with the promotion literature (i.e., Magyary, 2002), the current study examined social factors that relate to the promotion of mental health in adolescents, therefore adding to the body of knowledge in this research area. Additionally, research was conducted using a sample of Black adolescents, a group traditionally underrepresented in mental health research, adding to the knowledge about factors that support mental health in this group. Conducting research with underrepresented groups reinforces social workers commitment to social change and diversity in research. Furthermore, the study supported the conjecture of researchers to view mental health in a more positive light by conceptualizing mental health as inclusive of the presence of positive psychosocial well-being, in addition to the absence of negative psychosocial well-being.

Policy. Most policies are informed by research findings. Policies that allocate funding for the improvement of mental health in children and adolescents or the prevention of adverse behavioral and psychosocial outcomes may benefit from the information obtained in the current study. As noted in Chapter 1, existing policy, such as Subpart 14, Sec 5541 of the No Child Left Behind Act (NCLB) of 2001, makes provision for grants to improve the mental health of children through school based mental health

services. Policies such as NCLB could allocate funding for mental health promotion activities, especially in light of the current findings that both family and school integration promote psychosocial well-being in Black adolescents. As discussed in the practice implications, knowledge about what supports adolescent psychosocial well-being can serve to enhance existing initiatives or serve as a foundation for the development of new initiatives. Additionally, policies to foster social integration within an adolescent population need to be considered. School level policy, for example, can specify funding to develop initiatives to improve aspects of school integration (i.e., school bonding), based on the finding that school integration was important for better psychosocial well-being of the Black adolescents in the current sample.

Conclusion

This research investigated social factors that promote the mental health of Black adolescents. The impetus for the study was guided by the author's interest and significant practice experience with Black adolescents coupled with the desire to explore mental health within a more positive framework. The study proposed and found that both family and school factors were significantly related to the psychosocial well-being of Black adolescents. Additionally, religion, as defined by commitment to religious activity and examined within the context of the other two socialization agents, was marginally related to positive psychosocial well-being. This study added both to the more established literature of the protective effects and the sparse literature of the promotive effects of social factors on the mental health of Black adolescents, as defined by positive and negative psychosocial well-being indicators. It is the hope of this researcher that the

present study results enhance the ability of direct service practitioners, program developers, and policy makers to reduce the burden of mental ill-health in adolescents, through efforts to foster and build their mental health.

Appendix

Variables extracted from the NSAL-A dataset

1. Dependent Variable: Mental Health

a. Self –Esteem: Rosenberg Self-Esteem Scale (4-point likert scale, 1-Strongly Agree to 4-Strongly Disagree)

- I feel that I'm a person of worth, at least on an equal basis with others
- I feel that I have a number of good qualities.
- All in all, I 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 (good) 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

b. Active Coping: John Henryism Scale (4-point likert scale, 1-Completely True to 4-Completely False)

- I've always felt that I could make of my life pretty much what I wanted to make of it
- Once I make up my mind to do something, I stay with it until the job is completely done
- I don't let my personal feelings get in the way of getting a job done
- It's important for me to be able to do things in the way I want to do them rather than in the way other people want me to do them
- Sometimes I feel that if anything is going to be done right, I have to do it myself
- I like doing things that other people thought could not be done
- I feel that I am the kind of individual who stands up for what he believes in, regardless of the consequences
- Hard work has really helped me to get ahead in life
- When things don't go the way I want them to, that just makes me work even harder
- It's not always easy, but I manage to find a way to do the things I really need to get done
- Very seldom have I been disappointed by the results of my hard work
- In the past, even when things got really tough, I never lost sight of my goals

- c. Mastery: Pearlin's Mastery Scale (4-point likert scale, 1-Strongly Agree to 4-Strongly Disagree)
 - There is really no way I can solve some of the problems I have
 - Sometimes I feel that I'm being pushed around in life
 - I have little control over the things that happen to me
 - I can do just about anything I really set my mind to
 - I often feel helpless in dealing with the problems of life
 - What happens to me in the future mostly depends on me
 - There is little I can do to change many of the important things in my life

- d. Perceived Stress: Cohen's Perceived Stress Scale (5-point likert scale, 1-Never to 5-Very Often)

In the last month, how often have you.....

 - ...been upset because of something that happened that you didn't expect?
 - ...felt that you were in control of your life?
 - ...felt nervous and stressed out?
 - ...dealt successfully with daily hassles?
 - ...felt that you were able to successfully handle the important changes occurring in your life?
 - ...felt able to handle your personal problems?
 - ...felt that things were going your way?
 - ...found that you could not deal with all the things that you had to do?
 - ...been able to control hassles in your life?
 - ...felt that you were on top of things?
 - ...gotten angry because of things that happened that were outside of your control?
 - ...found yourself thinking about things you need to do?
 - ...been able to control the way you spend your time?
 - ...felt that you had so many problems that you could not deal with them?

- e. Mental Disorder: Absence of a DSM classification of a mental disorder

2. Independent Variables

a. Family Integration:

- Frequency of communication with extended family
 - i. How often do you see, write, talk on the telephone with, or e-mail family or relatives who do not live with you?
 - 1 - Nearly everyday (4 or more times a week)
 - 2 - At least once a week (1 to 3 times)

- 3 - A few times a month (2 to 3 times)
- 4 - At least once a month
- 5 - A few times a year
- 6 - Hardly ever
- 7 - Never

- Closeness to family members
 - i. How close do you feel towards your family members— 1- very close, 2-fairly close, 3-not too close, or 4- not close at all?
- Anticipated family support (4-point scale, 1-A Great Deal to 4-None)
 - i. If you were sick, how much would the people in your family be willing to help out? Would you say a great deal, some, a little, or none?
 - ii. If you had a problem or were faced with a difficult situation, how much comfort would they be willing to give you?
 - iii. If you needed to know where to go to get help with a problem you were having, how much would they be willing to help out?
- Receive emotional and tangible support (4-point scale, 1-Very Often to 4-Never)
 - How often do your family members....
 - i. make you feel loved and cared for?
 - ii. listen to you talk about your private problems and concerns?
 - iii. express interest and concern in your wellbeing?
 - iv. provide you with transportation?
 - v. help you financially?

b. School Integration:

- Years of participation in school activities (Number of years)
 - How many years have you been involved in each of the following activities at school?
 - i. Sports teams other than gym
 - ii. Band, orchestra, or chorus
 - iii. Student newspaper or yearbook
 - iv. Student council or honor society
 - v. Any other school clubs, teams, or organizations
- School Bonding (4-point scale, 1-Very True to 4-Not At All True)

- i. Most of my teachers treat(ed) me fairly
- ii. I (care/cared) a lot about what my teachers (think/thought) of me
- iii. I (like/liked) school
- iv. Getting good grades (is/was) important to me
- v. Homework (is/was) a waste of time
- vi. I (like/liked) my teachers
- vii. I (try/tried) hard at school
- viii. I (feel/felt) as if I (don't/didn't) belong at school
- ix. Most of the things I learn(ed) in school are unimportant

c. Religious Integration:

- Involvement in Organized Religious Activities
 - i. How often do you usually attend religious services?
 - 1 - Nearly everyday - 4 or more times a week
 - 2 - At least once a week - 1 to 3 times
 - 3 - A few times a month - 1 to 3 times
 - 4 - A few times a year
 - 5 - Less than once a year
 - 6 - Never
 - ii. Do you go to religious services because you want to, or because your (parents/guardians) make you go? 1 - Choose, 2 - Parents/Guardians Make You Go, 3 - Both
 - iii. Do you do things like sing in the choir, read scripture or other things like that during service? 1 - Yes, 5 - No
 - iv. Besides regular services, how often do you take part in other activities at your place of worship?
 - 1 - Nearly everyday - 4 or more times a week
 - 2 - At least once a week - 1 to 3 Times
 - 3 - A few times a month - 1 to 3 Times
 - 4 - A few times a year
 - 5 - Never
 - v. Do you go to these other activities because you want to, or because your (parents/guardians) make you go? 1 - Choose, 2 - Parents/Guardians Make You Go, 3 - Both
- Received emotional and tangible support from church members (4-point scale, 1-Very Often to 4-Never)
 - How often do the people in your place of worship...
 - i. make you feel loved and cared for?
 - ii. listen to you talk about your private problems and concerns?
 - iii. express interest and concern in your wellbeing?
 - iv. help you financially?

3. Demographic Variables
 - a. Age: How old are you now?
 - b. Ethnicity: (1) African American (2) Caribbean Black
 - c. Gender: (1) Male, (2) Female
 - d. SES: Household income (Measured in thousands)

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