Religiosity as a Predictor of Adolescent Internalizing Symptoms in Single-Parented African American Families

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ABSTRACT

AMY JOHNSON: Religiosity as a Predictor of Adolescent Internalizing Symptoms in Single-Parented African American Families
(Under the direction of Mitch Prinstein)

This study investigated the influence of religiosity on adolescent internalizing symptoms in single-parented African American families, giving attention to related factors that may impact this association, such as maternal depression, socioeconomic status, mothers’ co-parent relationship, and ethnic identity. Data was analyzed using path analysis and resulted in a complex model for understanding adolescent internalizing in African American families. Religiosity was positively correlated with internalizing problems. Possible reasons for this association are discussed. Nevertheless, results support the idea that religion is an important factor in internalizing symptoms for African Americans. Ethnic identity also emerged as a major predictor of maternal depression and adolescent religiosity. The current study provides a framework for future related research and for promoting healthy psychological adjustment for African American adolescents.
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CHAPTER 1
INTRODUCTION

Many researchers posit that adolescence is an especially challenging period of development for children. The adolescent transition is associated with increases in several forms of psychopathology, such as depressive symptoms, violent aggression, delinquency, and substance use (Hankin & Abramson, 2001; Moffit, 1993). Thus, the study of potential resilience factors in adolescence has been a priority in past developmental psychopathology research. Resilience factors include aspects of an individual’s social-psychological functioning, but also may include aspects of their environment, culture, or beliefs. A recent area under examination has been the roles of religion and spirituality as potential resilience factors.

Unfortunately, most past work on religion and spirituality has been somewhat hindered by inconsistent definitions used to describe these constructs. It is not uncommon for researchers to use the terms ‘religion’ and ‘spirituality’ interchangeably (Mattis, 2000; Oman & Thoresen, 2005). Although these terms are highly related, the current work offers a particular framework through which these concepts can be understood.

Religion is defined in the current study a shared system of beliefs, rituals, and doctrines often based on teachings of some ideology (Mattis & Jagers, 2001). This shared system frequently is associated with a belief in a supernatural power regarded as creator or ruler of the universe. The internal, personal, and emotional manifestation of this belief in a higher power is often thought of as ‘spirituality.’ Given these definitions, it would seem
religion could be summarized simply as a set of practices followed routinely based on some belief. However, when considering literature and findings on religion and its effects, there must be something qualitatively distinct about religion that removes it from other routinely completed activities. It is possible that the belief in a higher power (i.e., spirituality), that is embedded in religion, accounts for the effects of religion on individual lives.

Thus, religion and spirituality often are associated but remain conceptually distinct. Nonetheless, researchers continue to have difficulty agreeing on a semantic distinction between religion and spirituality (King & Boyatzis, 2004; Mattis & Jagers, 2001). This is likely because spirituality is often thought to be embedded in religion, though religion may not necessarily have to occur within spirituality. For instance, an individual who subscribes to a particular religion typically has a fundamental belief on which their religious practice is based. This belief is often related to some supernatural force. However, a person with spiritual beliefs may or may not engage in specific religious practices. For ease of presentation, the current study will refer to religiosity as the degree to which one practices his or her spirituality; collectively defining both the inherent spiritual beliefs (spirituality) as well as the outward expression thereof (religion).

Despite some definitional obfuscation in past research, there is good evidence to suggest that individuals’ religious beliefs are important correlates of psychological adjustment, at least with respect to White adults and youth. For instance, religiosity is significantly associated with some indices of healthy emotional, cognitive and behavioral development in children and adults (Ryff, Singer & Palmersheim, 2004; Smith, 2003; Staton & Cobb, 2006). There also is some evidence to suggest that religiosity may be an important resilience factor in adolescence; research indicates that religiosity is related to higher levels
of adolescents’ academic success and self-esteem and lower levels of delinquency, crime, and internalizing and externalizing behaviors (Johnson, Jang, Li & Larson, 2000; Mattis & Jagers, 2001; Wulff, 1991). Thus it is thought that belief in a higher power promotes a source of resilience that is instilled and engrained by religion. This ability, in turn, makes for more adaptive adolescent adjustment.

Interestingly, relatively little research has examined the role of religion in among African-American adults or youth. Yet, there may be several reasons why this is worthy of study. There is a good reason to predict that African American youth experience more stressors and risks than White youth due to higher rates of poverty, discrimination, poor education, and a host of other negativities common to the African American experience (Ball, Armistead & Austin, 2003; Laird, Pettit, Dodge & Bates, 2005; Milevsky & Levitt, 2004; Vazsonyi, Pickering & Bolland, 2006). The usefulness of religion in negotiating universal daily stressors, coupled with the inherent stress of being African American in an American society, is one explanation posed for the value that many African Americans place on their religion (Herndon, 2003). However, there is a lack of substantial literature that considers the effects of religiosity in African American culture, particularly among adolescents (Benson, 2004; Mattis & Jagers, 2001). Accordingly, the association between religiosity and psychological adjustment among African American adolescents remains an important, yet relatively underexplored association.

However, it was not anticipated that religiosity would be equally important for all African American youth. Rather, there are at least two factors that may affect either the centrality of religion in youths’ lives, or the extent to which African American youth
experience stressors. Correspondingly, the current study explored the factors of ethnic identity and the role of caregiver support.

Religion is documented as a central component of African American culture (Akbar, 1991; Brome, Owens, Allen & Vevaina, 2000; Herndon, 2003; Mattis & Jagers, 2001; Newlin, Knafl & Melkus, 2002). It is important to understand, then, whether the effects of religiosity are dependent upon the extent to which an African American identifies with African American culture. An individual’s level of ethnic identity determines whether or to what extent that person relates to certain beliefs, attitudes, or other general characteristics of their ethnic culture (Akbar, 1989; Cokley, 2005; Cross, 1978; Helms, 1990). For instance, with religion being an important facet of African American culture, one who identifies strongly with African American ethnicity may be more prone to deeply incorporate religion into their lives and regard it as a useful tool for daily living because of its cultural importance (Cokely, 2005). However, this may not necessarily be true for an individual who does not feel that being African American is a central piece of their identity and who may not as strongly identify with or adopt cultural characteristics or traditions. This in mind, it is important for researchers to at least give some considerations to ethnic identity before making presumptions about one’s behavior based on broad ethnic characteristics.

Furthermore, in African American families, more than any other ethnic population, many children are raised in single-parented households (Rollie, 2006; US Census Bureau, 2003). Single parents must often rely on others to co-parent or help them in childrearing (Jones, Forehand, Dorsey, Foster & Brody, 2005). The task of raising healthy adolescents under these circumstances, as well as with the existence of associated risk factors, may exacerbate other risks to adjustment. Thus, it would be especially beneficial to consider
religion as a potential resilience factor for adolescent adjustment in single-parented African American families.

The current study investigated the role of religion among African American youth. In doing so, this study examined a model of potential factors that are associated with youths’ religious beliefs, and the effects of religion on adjustment. Indeed, past work, including work among White youth, has too often relied on simplistic models that include either the parents’ religion or the child’s religion exclusively, as predictors of adjustment. These models often fail to incorporate a more complex consideration of the impact of both children’s and parents’ religious beliefs on adolescent adjustment. Seeking to address each of these concerns, the current study examined the direct and indirect effects of religiosity on adolescent internalizing symptoms in African American single-parent families.

The Theoretical Model

The proposed model included 2 distinct pathways. In the first pathway, adolescent religiosity was considered as a predictor of adolescent internalizing symptoms (i.e. depression and anxiety). A second pathway involved mothers’ religiosity as a potential predictor of adolescent internalizing symptoms. When considering mothers’ religion, various other factors were thought to be important to consider. The first and perhaps most central, was maternal depression. Next, socioeconomic status and the nature of mothers’ relationship with another primary caregiver of the child (co-parent) were considered as potential predictors of maternal depression and/or adolescent internalizing symptoms. Accordingly, mother’s religiosity was examined as a main effect of adolescent internalizing symptoms, perhaps as mediated by maternal depression, and SES, and level of co-parent support was examined as indirect predictors of adolescent internalizing symptoms (via maternal
depression). In addition, ethnic identity was considered as a predictor of each of the two primary pathways presented. Each of the hypothesized associations is described in more detail below. The entire proposed model is illustrated in Figure 1.

Adolescent Religion and Internalizing Symptoms

Religion plays a key role in the identity and moral development of adolescents, leading the adolescent into an adulthood characterized by integral contributions to their self, family, community and society (Lerner, Alberts, Anderson & Dowling, 2006). An adolescent’s personal religious beliefs shape the way they view and relate to the world and the challenges it presents (King & Boyatzis, 2004). Past research in this domain has focused largely on theoretical frameworks for religion in adolescence with only a small and fairly recent subset examining associations between adolescents’ religion and psychological symptoms empirically (Cotton, Zebracki, Rosenthal, Tsevat & Drotar, 2006; Smith, 2003). In addition, studies have attempted to investigate the way religion impacts an adolescent’s prosocial attitudes and behaviors. One such study showed that adolescents who were more religious than their counterparts were more likely to display prosocial behaviors such as empathy, helpfulness, perspective-taking, and moral reasoning (Furrow, King & White, 2004). Some studies have investigated religion’s direct positive impact on an adolescent’s psychological well-being, including aspects of coping and emotional health (Houskamp, Fisher, & Stuber, 2004).

The pro-social stance often resulting from religion may be also considered as an outward manifestation of a healthy internal process. In other words, religiosity is not only predictive of how a person relates externally to society but also how they adjust internally or psychologically. Religiosity has been associated with a host of indicators of adolescent
psychological adjustment. In a study conducted by Wallace and Williams (1997), an adolescent’s level of religion was inversely correlated to substance use and premature sexual involvement. Wallace and Forman (1998) found that religious adolescents are more likely to engage in health-enhancing behaviors (i.e., exercise, rest) and less likely to engage in behaviors that compromise their health (i.e., carrying weapons, fighting, drinking and driving). Other studies have demonstrated that religious activity may act as a protective factor against poor academic achievement (Regnerus, 2000) and delinquency (Donahue, 1995) and suicidal ideation and attempt (Donahue, 1995; Shagle & Barber, 1995) among adolescents.

All of these factors are thought to be indicators of how well an adolescent is ‘adjusting’ to their internal and external environments. Some researchers think of the aforementioned adolescent outcomes as outward manifestations of internal psychological conflict. This conflict is thought to stem from inability to effectively manage life stressors and often results in ‘adolescent-versions’ of internalizing symptoms such as depression and anxiety (Fuller, 1992; Machoian, 2005; Sklarew, Krupnick, & Ward-Wimmer, 2002). Overall, existing literature supports the contention that an adolescent who has a high level of religion is more capable of negotiating the difficult situations confronted during adolescence. This may be because their belief in a higher power, and their practice of this belief, allows them to diffuse a portion of the burden created by managing the situation alone. Through their religion, or practice of their spirituality, adolescents can believe that God or their supreme being will ultimately resolve the difficult situation. Perhaps, then, alleviating internalizing symptoms, such as depression and anxiety, and providing a way of coping with stress is the mechanism by which religion delivers its effects. Whereas this finding is
supported in adult samples, literature with adolescents has focused often on religion’s effects on externalizing symptoms (Cotton et al., 2006). This study provides an important contribution as it examined the direct effect of religiosity on adolescent internalizing symptoms (i.e., depression, anxiety, and somatic complaints).

Research suggests the effects of religiosity are more evident in minority and high-risk populations (Regnerus & Elder, 2003). Yet, existing literature on religiosity and its positive impact on the psychological adjustment of at-risk African American adolescents is sparse and largely non-empirical in nature (Herndon, 2003; Newlin et al., 2002; McAdoo, 1993; Mattis & Jagers, 2001; Taylor & Chatters, 1991). The few studies that have focused on African American adolescents, however, show promising findings. One such study of African American female adolescents found that religiosity predicted higher self-esteem and better overall psychological functioning (Ball et al., 2003). There is a need for more empirical research in this area. Consequently, the current study investigated adolescent religion and psychological adjustment within an African American sample and hypothesized that religiosity would be a significant predictor of internalizing symptoms within this sample (see Figure 2).

Figure 2. Adolescent religiosity as a predictor of adolescent internalizing symptoms

Furthermore, due to the cultural value of religion among African Americans, it was thought that the proposed model would relate more to those that identify highly with that culture. For this reason, there was a need to also consider ethnic identity as a predictor of the effects of religiosity with African American adolescents.
**Mother Religion and Adolescent Adjustment**

Parent’s religiosity has been directly linked to their children’s internalizing and externalizing behaviors (Christian & Barbarin, 2001). Regnerus (2003) found that parents’ religiosity appeared to have a positive influence on adolescent drug and alcohol use. A similar study demonstrated a positive effect of parents’ religiosity on adolescent delinquency when parents and children are similarly religious (Pearce & Haynie, 2004). It may be that parents’ practice of religiosity serves as a model of positive behaviors and beliefs for their children. This model functions as a healthy alternative to the host of negative beliefs and behaviors leading to maladjustment, particularly during adolescence. While the current study proposed that this direct link would be replicated in the current sample, a more complex pathway is presented below.

There are several other factors that may impact the relationship between a parent’s religiosity and their child’s psychological adjustment. In essence, literature suggests that a mother’s overall adjustment largely influences their child’s adjustment (Carothers, Borkowski, Lefever & Whitman, 2005). It is important, then, to investigate a model of religiosity that delineates the complex way in which religiosity affects mothers’ and consequently children’s adjustment. Specifically, it was anticipated that mothers’ religion would be related to maternal depression, which would, in turn, be related to children’s internalizing symptoms. Additionally, it was hypothesized that mothers’ a) SES and to b) level of support from co-parent would be concurrent predictors of maternal depression.

*MATERNAL DEPRESSION.* As with adolescents, it also is possible that the relationship between religion and depression may account for the impact of parents’ religious beliefs on adolescent adjustment. Literature suggests that higher levels of religion, in adults, are
associated with lower levels of depression (Dervic et al., 2004; Jang & Johnson, 2004; Lesniak, Rudman, Rector & Elkin, 2006). Although there currently is little research specifically investigating this relationship with mothers, researchers continue to contend the importance of religion for women who have children. Mothers, particularly those of young children, often are at increased risk for depression. Studies suggest that the depression experienced by these mothers is also strongly associated with financial hardship (Garrison, Marks, Lawrence & Braun, 2004; Reading & Reynolds, 2001). The effects of religiosity on depression are considered particularly effective in negotiating the challenges of motherhood. For example, Garrison and colleagues (2004) found that mothers endorsing more religious beliefs and religious activity experienced less depressive symptoms. Thus, further examination of religiosity and its effects on mothers is highly warranted. The benefits of further research in this area are two-fold; while it provides a further understanding of mothers and their use of religion while raising children, research in this area also adds to current knowledge of adolescent adjustment.

In considering the role of mother’s religion on adolescent internalizing symptoms it is important to acknowledge the strong intergenerational effects between mothers’ and adolescents’ depression. For years, psychologists have found that mother’s depression is a significant predictor of their adolescents’ adjustment (Beardslee, Versage & Gladstone, 1998; Childs, Schneider & Dula, 2001; Hammen, 1991; Hops, 1996). An example of this research is found in a study of adolescents of mothers with varying histories of depression (Nelson, Hammen, Brennan & Ullman, 2003). Findings demonstrated that mothers with higher levels of depression had children with higher levels of both internalizing and externalizing symptoms. In addition, studies have found that these effects may to increase over time. A
longitudinal study conducted by Weissman and colleagues (1997) evaluated mothers and offspring over a 10-year period and found that offspring of depressed parents were more likely to experience depression as well and, when this occurred, diagnosable depression typically began during adolescence. The study also found that, over time, offspring reported lower overall functioning.

Given the linkage of religion to mother’s depression and that of mother’s depression to adolescent adjustment, a logical, yet understudied pathway was posed by the current study: mother’s religion alleviates both mother’s depressive symptoms, which, in turn, contributes to positive adolescent adjustment (see Figure 3).

*Figure 3.* Mother’s depression as a mediator of the relationship between mother’s religiosity and adolescent internalizing symptoms.

Similar to above, few studies have considered the complexity of religion in an African American sample and considered the distinct features associated with African American families. As a result, ethnic identity was considered as a predictor of mothers’ religion as well.

With respect to African American families in particular, there are several distinct features that may significantly influence mothers’ depression. Accordingly, in an African American context, mothers’ religiosity may also play other roles. Specifically, we considered variables of SES and relationship with co-parent. Religiosity may act as a moderator of each of these factors and their relationship to mothers’ depression (see Figure 4). This is discussed in more detail below.
Figure 4. Moderating effects of mother’s religiosity in the relationship of SES and co-parent relationship to mother’s depression

Socioeconomic status. For several years, African Americans have been disproportionately represented in low SES groups (US Census Bureau, 2005; Sampson & Wilson, 1995). Research indicates the negative effects of economic hardship on adults and, specifically on mothers. For example, a sample of rural, European American mothers endorsed more depressive symptoms when they perceived themselves as not having sufficient financial resources (Conger et al., 1992). Within African Americans in particular, Seaton & Taylor (2003) illustrated a significant association between maternal depression and financial resources in low-income African American mothers. Other studies have found similar results (Cutrona et al., 2005; Lehrer, Crittendon & Norr, 2002). Particularly among African American single mothers, McLoyd (1989) contends that lack of sufficient financial resources is predictive of depressive symptoms. There are several possible reasons for the
link between low SES and depression in mothers. Mothers who are economically
disadvantaged not only have the everyday stress of utilizing limited finances, but also may
internalize feelings of insufficiency related to not being able to adequately provide for their
children (Ennis, Hobfoll & Schroder, 2000; Seaton & Taylor, 2003). This may be especially
ture for African American single mothers who also have the added burden of having to raise
children alone (Kim & Brody, 2005). It was hypothesized in the current study that religiosity
will act as a buffer of the negative effects imposed by SES on maternal depression (see
Figure 4).

Relationship with co-parent. A budding area of research shows interest in single
mothers and the role of caregiver support in raising their children. Recent research has begun
to investigate the concept of co-parenting or having one who plays a significant role in
helping the mother to rear the child. A small number of studies of have been devoted to
understand the impact of having a co-parent in African American single-mother-headed
families (Brody, Flor & Neubaum., 1998; Brody, Stoneman, Flor & McCrary, 1994; Conger
et al., 2002; Jones et al., 2005; Jones, Shaffer, Forehand, Brody & Armistent, 2003). Initial
work suggests that higher levels of perceived caregiver support may be directly related to
maternal mental health in single-parent African American families (Kim & Brody, 2005).
Jones and colleagues (2005) have recently found that higher levels of conflict between single
mothers and the person who helps them co-parent their adolescent, is predictive of higher
levels of maternal depressive symptoms. Similar to SES, the correlation between co-parent
support in single-parent families and maternal depression is a logical addition to the pathway
of religiosity’s effects (see Figure 4). While this research is early in its development,
investigating the impact of supportive co-parent relationships on depression may provide an
interesting contribution to understanding the moderating effects of religiosity in single-parent African American families.

Summary and Hypotheses

As previously mentioned, within the domain of religion and African American adolescent adjustment there is considerable need for further research. The current work serves to further understand the effects of religiosity particularly in African American single-parented families, and also will serve as an initial contribution to exploring other potential correlates. Given existing literature and aforesaid postulations, the following hypotheses were posed:

1. Adolescent religiosity will be negatively associated with adolescent internalizing symptoms.

2. Mother religiosity will be negatively associated with adolescent internalizing symptoms, with maternal depression as a mediator of this relationship.

3. Mother religiosity will moderate the effects of SES on maternal depression and, consequently, on adolescent internalizing symptoms.

4. Mother religiosity will moderate the effects of quality of co-parent relationship on maternal depression and, consequently, on adolescent internalizing symptoms.

5. Ethnic identity and religiosity will be positively associated both for mothers and adolescents.
CHAPTER II

METHODS

Participants

Participants were 150 African American adolescents ages 11-17 (40% male, 59% female) and their single-parent mothers from central North Carolina. All were participants in a larger home-based study of family processes in African American families and their relationship to adolescent adjustment. Mothers in the study range in age from 26 to 64 years of age with mean age of 39 years. Forty-six percent of mothers reported they were never married, 12% stated they were legally married but separated, 35% were divorced, and 5% widowed and 2% currently married. The average income for mothers participating in this study was $29,847.

Procedure

Recruitment. Families in the study were recruited by word of mouth and by flyers distributed throughout the Durham, Raleigh, Chapel Hill and Greensboro communities. Fliers provided contact information for interested families. Families were able to contact staff via telephone to express interest, obtain more information about the study and schedule interviews. During this telephone call, a research assistant spoke to each mother to describe the study and determine whether the family would be interested in participating. Upon receiving the mother’s verbal assent to participate in the study, the family was scheduled for data collection at their earliest convenience.
Data Collection. Data were collected either in the family home, at Greensboro AHEC (Area Health Education Center), or in research offices at the University of North Carolina at Chapel Hill. Although the larger study was a longitudinal one in which data were being collected at 2 time points, the present study is based solely on data collected at Time 1. Two trained research assistants were scheduled to be in attendance at each interview. Consent was obtained from parent(s) and adolescent prior to any data collection. During the assessment, trained research assistants provided each participating family member with explicit instruction for entering responses for the computer-based surveys. Computer-based surveys included an electronic version of each measure in which data were stored and electronically placed into protected data files. Each participant was advised to work individually and not to share responses. Research assistants were available throughout the assessment process to answer any questions or provide any assistance needed. The entire interview lasted approximately 1 -2 hours. Each family was compensated with a Wal Mart gift card for their participation.

Measures

Demographics. A demographic questionnaire was administered to parents and children to acquire basic background information. Demographic information for parents included age, ethnicity, birthplace, years in U.S., marital status, family composition, education, employment, and income. Demographic information collected for children included gender, age, ethnicity, birthplace, years in U.S., school enrollment, grades, employment, and parenthood.

Religiosity. Level of religion for both adolescent and parent was measured using 10 items taken from a scale constructed in the Ball, Armistead & Austin (2003) study of
religiosity among adolescent females (see Appendix A). The first item asks the participant to identify their religious faith from a list of choices. This list of choices included common religions (e.g. Christian, Muslim, Jewish, Buddhist, Hindu, and Jehovah's Witness) and the response options of “Other religious faith” or “No religious faith”. Item 2 provides space for the respondent to list their religious faith if it falls in the “other” category listed in item 1. The remaining 8 items were used analyses examining the associations between religiosity and other study variables. The scale has a Likert-type response format with items reflecting both the degree of religious beliefs (i.e., How important do you think it is for people to attend religious services?) and frequency of religious behaviors (i.e., How often do you pray?). The 8-item scale was standardized to reflect the same response-range for all items. Results from factor analysis indicated adequate validity and reliability. Internal consistency for this scale in past research has yielded an alpha of 0.71 (Ball, Armistead & Austin, 2003). Data from the current study yielded an alpha of .78 for mothers and .78 for adolescents.
Maternal depression. Maternal depressive symptoms were measured using the CESD (Center for Epidemiological Studies-Depression) Scale (Radloff, 1977; see Appendix B). The CESD Scale is a 20-item measure of depressive symptoms. Mothers rated each item on a scale from 0 “rarely” to 3 “most of the time” relative to how often they experienced a particular symptom during the past week. Sample items include: “I did not feel like eating. My appetite was poor.” and “I thought my life had been a failure.” Responses of each item were combined to obtain a total score for the measure. The CESD has established validity and reliability with Cronbach’s alphas ranging from .84 to .89 in various ethnic populations (Perreira, Deeb-Sossa, Harris & Bollen, 2005). Cronbach’s alpha for this scale in the current study was .89.

Adolescent internalizing symptoms. The Internalizing domain (Anxious/Depressed, Withdrawn, and Somatic Complaints subscales) from the Youth Self Report (YSR; Achenbach, 1991) measured adolescent internalizing symptoms (see Appendix C). Item 91 of the YSR (“I think about killing myself”) was omitted from the 31-item subscale in order to ethically maintain agreements of confidentiality. For each item, adolescents used a 3-point Likert-type scale to rate how well the item described them during the past 6 months: 0 “not true”, 1 “somewhat true”, or 2 “very true”. Researchers have indicated a high degree of validity for these subscales of the YSR in predicting adolescent internalizing symptoms (Rey & Morris-Yates, 1992; Ivarsson, Gillberg, Arvidsson & Broberg, 2002). Additionally, internal consistency has been demonstrated repeatedly with alphas > .70 (Broberg, et. al., 2001). Similarly, adequate reliability was established in the current sample with an alpha of .88.
Co-parent relationship. The Parenting Convergence Scale (PCS; Ahrons, 1981) was adapted to measure the supportive nature of co-parent relationships (see Appendix D). Mothers were asked to rate the 11 items in reference to the person designated as someone who helps to co-parent the child (i.e., How often do you and your co-parent make major decisions together about this child’s life?; When you are your co-parent talk about how to raise this child, how often is the conversation hostile or angry?). The Likert-type response scale was reduced from 5 points to 4 points for use with the present sample. Possible responses range from 0 “never” to 3 “often”. 2 items were reverse-scored and all responses were added to obtain a sum total score such that higher scores demonstrated a higher quality of co-parent relationship. The scale demonstrated internal consistency with an alpha of .81. This is consistent with established validity and reliability in other studies with alphas >.80 (Jones, Forehand, Dorsey, Foster & Brody, 2005).

Ethnic Identity. The Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) was used to measure ethnic identity (see Appendix E). Both mothers and adolescents in the current study completed this 17-item scale to assess how they feel about or react to their African American ethnicity. Five of the items ask respondents to identify their ethnicity and that of their parents from a list. The remaining 12 items were used in analyses investigating the association of ethnic identity to other study variables. Response format for the MEIM is 4-point Likert-type with responses ranging from 1 “strongly disagree” to 4 “strongly agree”. The MEIM uses a sum total to assess overall ethnic identity but also includes the following subscales: Ethnic identity, Affirmation and belonging, Ethnic identity achievement, Ethnic behaviors and practices, Ethnicity, Other-group orientation, and Self-identification. The current study assessed overall ethnic identity using a sum total score. Sample items for the
MEIM include “I have a strong sense of belonging to my own ethnic group” and “I feel good about my cultural or ethnic background”. The MEIM has demonstrated validity and reliability (with alphas above .80) within African American adolescent populations similar to that of the current study (Simons et al., 2002). Within the current sample, African American single-parent mothers and their adolescent children, reliability testing for this scale yielded Cronbach’s alphas of .91 for mothers and .89 for adolescents.
CHAPTER III

RESULTS

Preliminary Analyses

Table 1 presents descriptive statistics for each study variable for male and female children. T-tests were conducted to examine gender differences for all study variables. No significant gender differences were found. Nevertheless, gender was included as a control variable in all subsequent analyses. Associations between adolescents’ age and each study variable were also examined. No significant associations were found. However, it should be noted that the association between adolescent age and adolescent religiosity closely approached significance, \( p < .06 \). For this reason, age was included in the final model as a predictor of religiosity. In addition, as with gender, age was included as a covariate in subsequent hypothesis testing.

Correlational analyses then were conducted to examine inter-correlations between all study variables (see Table 2). SES correlated significantly with maternal depression as well as with both mother and adolescent ethnic identity. Specifically, higher levels of SES were related to lower levels of maternal depression and higher levels of SES were related to higher levels of ethnic identity for mothers and adolescents. SES was included as a control variable in all primary analyses. Further results of correlational analyses revealed other significant associations. First, there were significant positive correlations between both mother and adolescent religiosity and ethnic identity. In addition, higher levels of adolescent religiosity
were associated with higher levels of adolescent ethnic identity. Higher levels of ethnic identity reported by mothers were associated with lower levels of maternal depression.

*Path Analyses*

Main hypotheses of the current study were tested using structural equation modeling. First, a latent variable was constructed for adolescent internalizing symptoms. The latent variable included three observed indicators from the YSR (i.e., anxiety/depression, somatic complaints, and withdrawal subscales). Initial analysis included the latent factor, and covariates (age, gender, income). Model fit the data well, $\chi^2 (6) = 6.10$, NS; $\chi^2$/df = 1.02; CFI = 1.00; RMSEA = .01. Each indicator loaded significantly onto the latent construct (i.e., Anxiety/Depression set to 1.00, Somatic Complaints b = .65, Withdrawal b = .80).

All primary hypotheses then were added to the model. Paths were estimated for each hypothesized association (see Figure 1) Specifically, the following paths were investigated: 1. adolescent ethnic identity predicting adolescent religiosity; 2. adolescent religiosity predicting adolescent internalizing symptoms; 3. mother ethnic identity leading to mother religiosity; 4. mother’s religiosity as a predictor of maternal depression; 5. SES predicting mother’s depression; 6. Co-parent relationship to mother’s depression; 7. mother’s religiosity as a moderator in the path between SES and mother’s depression; 8. mother’s religiosity as a moderator in the path between Co-Parent relationship and mother’s depression; and 9. mother’s depression predicting adolescent internalizing symptoms. In addition, covariances were estimated among all predictor variables. This model did not fit the data well, $\chi^2 (40) = 703.38$, p < .001; $\chi^2$/df = 17.58; CFI = .61; RMSEA = .30; AIC = 861.38.

Because of its non-significant association, the income x mother religiosity interaction was considered for removal. It was considered that low socioeconomic status in this
population may be so significantly related to maternal depression, that religiosity alone
would not be enough to buffer its effect, thus preventing the interaction between income and
religiosity from being significant. As a result, this path was trimmed from the model.

Next, the path of mother’s religiosity as a moderator between co-parent relationship
and mother’s depression was considered for removal. In the current sample, co-parent
relationship did not correlate significantly with maternal depression. It is possible that the
two variables are not directly linked in the population of study because of the varying types
of co-parent dyads (e.g. parent-grandparent; parent-aunt). In this case, religiosity as a
moderator of this relationship may not be relevant in the current model. For this reason, the
co-parent relationship x mother religiosity interaction path was eliminated.

Following elimination of these two paths, the resulting model fit the data well, $\chi^2 (32) = 33.34, p < .40$; $\chi^2/df = 1.04$; CFI = 1.00; RMSEA = .02; AIC = 149.34. Examination of
model fit statistics (i.e., AIC) suggested that this model was a substantially better fit to the
data than the original model. This was considered as the final model. Path coefficients and
covariance estimates for the final model are shown in Figure 5.

Several significant hypothesized associations were revealed. First, as expected, the
path between adolescent ethnic identity and religiosity was significant, such that higher
levels of ethnic identity were associated with higher levels of religiosity, $\beta = .30$, $p < .001$.
There was also a direct effect of ethnic identity on adolescent internalizing symptoms, $\beta = -.20$, $p < .01$. Higher levels of adolescents’ ethnic identity were associated with lower levels of
adolescent internalizing symptoms. Second, adolescents’ religiosity was associated
significantly with adolescents’ internalizing symptoms, $\beta = .19$, $p < .05$. While this was a
predicted path, the nature of the path was unexpected. In the hypothesized model, higher
levels adolescent religiosity would lead to lower levels of adolescent internalizing symptoms. In the final model, higher levels of adolescent religiosity led to higher levels of adolescent internalizing symptoms.

Third, age was a significant predictor of adolescent religiosity. This relationship was negative, such that older children reported lower levels of religiosity, $\beta = -.21$, $p < .01$.

Fourth, counter to hypotheses, mother’s ethnic identity was not associated significantly with mother’s religiosity. However, there was a significant association between mother’s ethnic identity and mother’s depression, $\beta = -.22$, $p < .01$. Mothers who reported a higher sense of ethnic identity reported significantly less depression. Fifth, the path between SES and mother’s depression revealed a significant effect in support of the hypothesized path, $\beta = -.19$, $p < .01$. Higher levels of SES were associated with lower levels of mother’s depression.

It should also be noted that maternal depression was hypothesized as a mediator of the relationship between mother religiosity and adolescent internalizing symptoms. However, preliminary support that might imply mediation was unavailable. Thus, mediation of this relationship could not be test. With regards to hypothesized covariance paths, there was significant covariance between mother and adolescent ethnic identity, $\beta = .18$, $p < .05$, and mothers’ and adolescents’ religiosity, $\beta = .37$, $p < .001$. No other hypothesized paths were significant.
Adolescence is characterized as a challenging period of development (Hankin & Abramson, 2001). For this reason, protective factors during this process are of great relevance and research interest. Among those protective factors studied, religion and spirituality have received developing attention. There are a growing number of studies investigating the impact of adolescent religiosity on adolescent adjustment. However, the current literature in this area is limited and many of these studies are exploratory in nature or focus largely on external outcomes (Benson, Scales, Sesma, Roehlkepartain, 2006; Mattis & Jagers, 2001). There is also a lack of literature examining religiosity and adolescence in ethnic minority populations, many for which religiosity and spirituality are thought to be integral components to functioning and well-being (Barry & Nelson, 2005; Ecklund & Park, 2007; Graham-Bermann, De Voe, Mattis, Lynch & Thomas, 2006; Jackson & Nassar-McMillan, 2006; Mattis & Jagers, 2001; Ramos, 2004). The current study was aimed at contributing to an in-depth understanding of the impact of religiosity and spirituality in adolescence for African American families, specifically as related to adolescent internalizing problems.

The model proposed in the current study identified several factors important to understand the process by which religiosity impacts adolescent internalizing symptoms. It can be concluded that the factors included in the current study work together to have a significant impact on adolescent internalizing symptoms, specifically in African American
single-parented families. The final model suggests that both parent and adolescent functioning are important to understanding adolescent internalizing. In addition, results suggest religiosity continues to be an important factor in predicting adolescent internalizing, although it may be necessary to examine nontraditional ways viewing this relationship. Ultimately in the current study, while mothers and adolescents appear to have distinct subprocesses contributing to adolescent internalizing symptoms, these distinct pathways are connected at specific phases of the overall process. These connections include associated levels of religiosity and ethnic identities. This suggests the importance of understanding associations between religiosity and ethnic identity in order to examine the collective impact that parents and adolescents have on adolescent internalizing. The final model also indicates ethnic identity as a key component in understanding the relevance of the model to specific African American families. The following sections include a more detailed discussion of the specific findings of the current study.

Adolescent Religiosity and Internalizing Symptoms

A central hypothesis in this study suggested that religiosity would be associated with internalizing symptoms. Although the results confirmed that indeed adolescents’ religious practices are related to psychological adjustment, findings suggested that the nature of this association actually was opposite from what was anticipated. In this study, results suggested that higher levels of religion were associated with higher levels of internalizing symptoms. This unexpected finding is interpreted in three ways.

First, it is possible that adolescents who are highly spiritual pay more attention to their internal experience than adolescents who are less religious or spiritual. In this case, adolescents with higher levels of spirituality may be more likely to report more internalizing
problems because they may be more attuned to their internal process and, consequently, the conflicts therein (Cooper, 2006; Hayes, Follett & Linehan, 2006; Horneffer, 2006).

Consistent with this idea, a study by McConnell and Pargament and colleagues (2006) found that adults’ experience of “spiritual struggles” (“expressions of conflict, question, and doubt regarding matters of faith, God, and religious relationships”) was associated with higher levels of internalizing symptoms such as anxiety, depression, and somatization. Although this study was conducted using an adult sample, this concept of “spiritual struggle” may be especially relevant to adolescent development. While it is known that adolescence is a period of life marked by challenging identity exploration, this exploration likely includes a complex series of questions, rejections, and acceptances about the adolescents’ religiosity and spirituality. This process may closely simulate “spiritual struggle” and produce the feelings of depression, anxiety and somatization reported by the adolescents in the current study who reported being more religious or spiritual. This may be especially true for African American populations whose culture largely values spirituality (Regnerus & Elder, 2003).

Another possibility is that the measure of religiosity used in this study, which included an assessment of spirituality and several questions of solitary religious practice, may warrant reconsideration. A recent study by Good and Willoughby (2006) has postulated that religiosity in the context of organizational religiosity (i.e. church attendance) alone is actually a better predictor more effective in facilitating positive adolescent adjustment, regardless of adolescents’ level of spirituality. Good and Willoughby (2006) contend that this may be because of the community and supportive nature of corporate religious practice. A more in-depth measure of religiosity may offer a better understanding of its positive effects on adolescent adjustment. Again, the benefit of organizational religiosity may be especially
relevant for those of African American culture, which is often thought to be communal in nature (Kambon, 1998).

It is also possible that the direction of the effect is different than was hypothesized and that the presence of internalizing symptoms leads to higher levels of religiosity. In this case, adolescents who experience more internalizing symptoms may make use of religion more to help them cope with the increased stressors they experience. It is logical to suspect this relationship for African American adolescents since it has been mentioned that African American adolescents tend to experience more stressors than their white counterparts, specifically related to their experience as African American (Ball, Armistead & Austin, 2003; Laird, Pettit, Dodge & Bates, 2005). The dual stress of negotiating adolescence as well as one’s ethnic minority status as an African American provides increased stress for African American adolescents. This increased stress also increases the need for and use of religiosity as a coping resource (Herndon, 2003), thus characterizing a positive relationship between religiosity and internalizing symptoms, as illustrated in the current study. Although the direction of this relationship was hypothesized differently, the idea that more internalizing symptoms may lead to higher levels of religiosity supports the hypothesis of religiosity as an important buffer for African American adolescents.

Because it was assumed that religion would be an especially important correlate of internalizing symptoms, a second major goal of this study was to examine factors that may predict levels of adolescent religiosity. In the current study, age emerged as an important factor when considering religiosity such that older adolescents tended to be more religious. Age as a significant predictor of religiosity is consistent with current literature in this domain. This is likely because older adolescents have had a longer period of time to develop
an understanding of the importance of developing their own individual sense of spirituality and religious practice. Younger adolescents may not have had the chance to fully develop this concept for themselves.

Another important factor in understanding adolescent religiosity and its effects was ethnic identity. As hypothesized, ethnic identity emerged in the final model as a key construct in understanding the population in the current study. Ethnic identity was also significantly related to adolescent internalizing symptoms such that adolescents with higher ethnic identity reported lower internalizing symptoms. These results support the notion that ethnic identity is an important factor in considering psychological processes in African American families. Ethnic identity may serve as both a buffer to negative effects and contributor to positive outcomes for African American families. Furthermore, it is important to remember that the applicability of ethnically-specific models to an individual of a specific ethnic group may be highly dependent of the level of ethnic identity possessed by that individual.

These findings provide useful information about the role of religiosity during adolescence. Although the nature of the relationship between religiosity and internalizing symptoms was surprising in the current study, there are various plausible suppositions regarding this relationship and this finding should not be presumed as unfavorable. In addition, age and ethnic identity are important factors to consider in association to religiosity and internalizing symptoms and may offer further implication. Results of the current study suggest that the relationship between adolescent religiosity and internalizing symptoms must be approached from a flexible perspective in order to be effectively appreciated.
**Mother Religiosity and Adolescent Adjustment**

In addition to the study of adolescent religiosity on internalizing symptoms, this investigation also examined family factors that may be relevant to this association. For instance, the role of mothers’ religiosity was explored. Research has shown that parents’ religiosity is significantly related to adolescent adjustment (Christian & Barbarin, 2001; Pearce & Haynie, 2004; Regnerus, 2003). However, there is a lack of research that focuses on the path by which this relationship occurs. The current study sought to include other factors in an attempt to gain a better understanding of parents’ religiosity and adolescent adjustment. As expected, adolescents’ and mothers’ religiosity were significantly correlated, supporting the literature indicating that parents’ religiosity is associated with that of their children (Flor & Knapp, 2001; Okagaki & Bevis; 1999). It was postulated that this relationship would be an essential path by which mothers’ religiosity impacts adolescent internalizing. Surprisingly, in the current study, mother religiosity did not seem to have a significant impact on adolescent internalizing symptoms and provided no information to support maternal depression as a mediator of this relationship. This finding may have to do with the unique period of adolescence in this population which is characterized by a challenging duality. These adolescents must deal with the stressors of being in a single-parented African American family while also negotiating the stressors, inherent to adolescence, stemming from negotiating their own individual identity and exploring autonomy (Graber & Brooks-Gunn, 1996; McGue, Elkins, Walden, & Iacono, 2005). These adolescents may be less sensitive to or even reject their parents’ influence. In this case it may be necessary to also examine this relationship in the context of the parent-adolescent
relationship to gain a better understanding of whether this may impact the level of influence a mother’s emotional and psychological adjustment may have on that of her child(ren).

Additionally, it is important to note that the relationship between mother religiosity and adolescent adjustment was viewed specifically in the context of maternal depression. While maternal depression did not appear to be impacted by mother religiosity, it is possible that, as with adolescents, a measure of religiosity focused more on the organizational aspects of religiosity may provide a different estimation of its association to maternal adjustment and, consequently, to adolescent adjustment.

**Maternal Depression**

As previously mentioned, maternal depression was examined in relation to the association between religiosity and internalizing symptoms. In order to investigate the possible paths by which this relationship might occur, the current study sought to examine important factors that may impact maternal depression and how these factors might be moderated by religiosity. Ethnic identity appeared as a significant predictor of maternal depression. As with adolescents, this supports the idea that ethnic identity is critical to considering both psychological adjustment and the relevancy of ethnically-specific models, particularly in African American families. Literature suggests that factors such as economic hardship and lack of support are especially relevant to single African American mothers and often have a significant impact on maternal psychological adjustment in this population (Brody, Murry, Kim & Brown, 2002; Goosby, 2007; Jones, Forehand, Dorsey, Foster & Brody, 2005). The current study included socioeconomic status (SES) and quality of relationship with a co-parent as factors in the relationship between religiosity and maternal depression.
Consistent with current literature, income was significantly associated with maternal depression (Cutrona et al., 2005; Seaton & Taylor, 2003). The current study supports the notion that the stressors related to earning a living, and thus being accepted or rejected as a part of a certain social status can have results in serious and adverse affects on psychological well-being. Additionally, the necessary removal of the path of religiosity as a moderator of the relationship between SES and depression suggests that the adverse effects of low socioeconomic status effects may occur even at different levels of religiosity.

Contrary to the hypothesis, co-parent data from the current study revealed no significant associations between co-parent relationship quality and maternal depression. This may be because the current study makes no distinctions between whether, and to what extent, the co-parent is related to the parent. It is possible that the type of relationship co-parents share may influence the impact of the relationship on mothers’ psychological adjustment. For instance, quality of relationship in a co-parent dyad comprised of a mother and father who are or have been romantically-involved may have great bearing on a mothers’ emotional well-being than a co-parent dyad of a mother and her sister or a mother and her child’s grandparent. The types of attachments in these relationships may be very different and are likely to impact maternal depression in unique ways. Unfortunately, there were not sufficient numbers of the various types of dyads in the current study to effectively analyze this hypothesis.

Implications

Implications of the current study can be viewed in the context of promoting healthy psychological adjustment for African American adolescents and families and also providing culturally relevant models for understanding religiosity. This study also provides and initial
framework for future research in these domains. The current study provides an initial understanding of religiosity and adolescent adjustment in African American families. Specifically, understanding that religiosity and spirituality may produce anxiety and depressive symptoms during the challenging negotiations of adolescence can help parents, psychologists, ministers and other individuals involved in mental health research and practice or spiritual work with adolescents. Conversely, it is also important to understand that adolescents may turn to spirituality to help themselves cope with challenges arises in adolescence. It may be important for individuals working with these adolescents to understand and facilitate this process. Also, the finding in the current study that older adolescents are often more religious suggests that work with these adolescents should especially consider internal conflicts their relationship to spirituality.

The variable named as internalizing symptoms in this study was comprised of somatic complaints, anxious/depressed symptoms, and withdrawal. As previously mentioned, research on internalizing symptoms in youth shows that African Americans have a tendency to report depressive symptoms in the form of somatic complaints. Results of the current study imply that inclusion of somatic complaints when measuring internalizing symptoms is specifically relevant and better suited when measuring African American populations and possibly other ethnic minority populations. It is also important to note that ethnic identity can be used as a predictor and indicator of the usefulness of the certain models of religiosity and adjustment.
Limitations and Future Research

A notable limitation of the study was the measure of religiosity and spirituality used. A more in-depth measure illustrating the various aspects of religiosity and spirituality may offer a better understanding of the impact of religiosity on both mother and child outcomes. Another limitation of this study is the lack of distinction between types of co-parent relationships. Separating co-parent dyads by type may provide more accurate results regarding the impact of co-parent relationship quality on maternal depression and, consequently, adolescent adjustment. Notably, the current study was cross-sectional in nature and only captures data at one data point. Age as a significant predictor of religiosity in the current study suggests that factors related to adolescent internalizing symptoms may change with age. Accordingly, investigation of the current model from a longitudinal perspective may provide further information about the nature of the study variables and whether and/or how they change over time. An additional limitation of the current study is that the population of study included only single-parent, mother-headed African American families. While this population is a sub-sample of African American families, there may be characteristics unique to this type of family that prevent findings from being generalizable to all African American families as well as other ethnic minority groups. Further research in this area may provide more information on the applicability to other African American families and other ethnicities. Furthermore, participants in the current study were all from eastern North Carolina. Eastern North Carolina is located in a region known as the “Bible Belt.” “Bible Belt” is a slang term used for a geographical region in the South and the midsection of the United States where fundamental Christianity is a large part of culture and
individuals are thought to be more religiously inclined (Schwartz & Lindley, 2005). It is unclear whether the prevalence of religious institutions in this area has an impact on the associations of religiosity in the lives of adolescents. Research in other geographic locations may offer a better understanding of this possibility. At this point, one should use caution when generalizing results of the current study to families in other geographic locations.

Further research is needed to validate the findings of the current study. Also, a more in-depth investigation of the construct of religiosity and its components is warranted. This is specifically necessary within adolescent populations. It would provide an initial step toward understanding the role of religiosity and the process by which it impacts internal psychological processes during adolescence. Additionally, specific examination of the concept of “spiritual struggles” in adolescents may offer an explanation to the surprising results of the current study. It would be helpful to determine whether this is actually what is occurring and whether other models specific to these “struggles” are needed. As previously mentioned, all of these concepts should be considered in the context of ethnic identity. More research is needed considering African Americans populations as well as other ethnic minorities whose cultures are thought to place similar value on religion and spirituality.

Predicting adolescent internalizing symptoms within African American families is a complex process that warrants comprehensive study. In addition, the role of religiosity is central to this process and adds yet another layer of complexity. The current work challenges the field of psychology to broaden its conceptualization of religiosity and of adolescent internalizing symptoms to include processes relevant to various groups, particularly ethnic minorities. These processes include social, cultural, and familial factors. As the field of psychology increases its dedication to diversity and culturally relevant research and practice,
the current study contributes to emerging literature aimed at understanding culturally relevant factors in adolescent adjustment. Nevertheless, a great deal of development is needed in these areas before significant conclusions can be made.
Table 1

*Means and Standard Deviations of Study Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Boys (n=87)</th>
<th>Girls (n=106)</th>
<th>Total (n=193)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mother Religiosity</td>
<td>25.62 (4.42)</td>
<td>25.71 (4.76)</td>
<td>25.69 (4.60)</td>
</tr>
<tr>
<td>2. Adolescent Religiosity</td>
<td>22.02 (5.25)</td>
<td>22.73 (4.88)</td>
<td>22.42 (5.05)</td>
</tr>
<tr>
<td>3. Maternal Depression</td>
<td>10.70 (8.03)</td>
<td>11.96 (10.31)</td>
<td>11.34 (9.37)</td>
</tr>
<tr>
<td>4. Adolescent Internalizing Symptoms</td>
<td>0.74 (0.84)</td>
<td>0.57 (0.65)</td>
<td>.65 (.75)</td>
</tr>
<tr>
<td>5. SES (Income)</td>
<td>30,156.72</td>
<td>29,376.86</td>
<td>29,733.96</td>
</tr>
<tr>
<td>6. Coparent Relationship</td>
<td>22.93 (5.00)</td>
<td>22.55 (4.94)</td>
<td>22.31 (4.96)</td>
</tr>
<tr>
<td>7. Mother Ethnic ID</td>
<td>32.93 (6.95)</td>
<td>33.54 (6.01)</td>
<td>33.22 (6.44)</td>
</tr>
<tr>
<td>8. Adolescent Ethnic ID</td>
<td>30.96 (7.18)</td>
<td>32.63 (6.17)</td>
<td>31.91 (6.66)</td>
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</tbody>
</table>
Table 2

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

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<tbody>
<tr>
<td>1. Mother Religiosity</td>
<td>_</td>
<td>.36**</td>
<td>-.07</td>
<td>-.09</td>
<td>.09</td>
<td>-.08</td>
<td>.06</td>
<td>.14</td>
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<td>2. Adolescent Religiosity</td>
<td>_</td>
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<td>.05</td>
<td>-.01</td>
<td>-.06</td>
<td>.06</td>
<td>.30**</td>
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<td>3. Maternal Depression</td>
<td>_</td>
<td>.08</td>
<td>-.23*</td>
<td>.03</td>
<td>-.26**</td>
<td>-.05</td>
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<td>4. Adolescent Internalizing</td>
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<td>5. SES (Income)</td>
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<td>7. Mother Ethnic ID</td>
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</table>
Figure 1. Proposed Theoretical Model
Figure 5. Final Model

Adolescent Ethnic Identity → Adolescent Age: -.21**

Adolescent Ethnic Identity → Adolescent Religion: .30**

Mother’s Ethnic Identity → Mother’s Religion: .18*

Mother’s Ethnic Identity → Co-parent Relationship: .03

Mother’s Ethnic Identity → Mother’s Depression: -.22**

Mother’s Religion → Mother’s Depression: .03

Co-parent Relationship → Adolescent Religion: -.20*

SES → Adolescent Religion: .37**

Mother’s Religion → Mother’s Depression: -.19**

Adolescent Religion → Mother’s Depression: .19*

Adolescent Age → Mother’s Depression: -.21**

Adolescent Internalizing Symptoms:
- Somatic
- Anxious/Depressed
- Withdrawn

Adolescent Internalizing Symptoms: 1.00*

Adolescent Ethnic Identity → Adolescent Age: .80

Adolescent Ethnic Identity → Adolescent Religion: .65

Adolescent Ethnic Identity → Mother’s Ethnic Identity: .10
Appendix A

Religiosity Scale

The following questions ask about religion and spirituality. For this first set of questions, please click on the number that best represents how you feel.

Q1. What is your religious faith? (Choose one)
   00 No religious faith
   01 Christian
   02 Muslim
   03 Jewish
   04 Buddhist
   05 Hindu
   06 Jehovah's Witness
   07 Other religious faith
   97 Don't Know
   98 Refuse to Answer

Q2. Please write your religious faith.

Q3. Do you believe in God?
   Definitely no 0
   1
   Definitely yes 2
   Refuse to Answer 8

Q4. How religious are you?
   Not religious at all 0
   1
   2
   Very religious 3
   Refuse to Answer 8

Q5. How important do you think it is for people to attend religious services?
   Not important at all 0
   1
   2
   Very important 3
   Refuse to Answer 8
<table>
<thead>
<tr>
<th>Q6.</th>
<th>How often do you read the Bible, or other religious books, magazines, or stories?</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Never</td>
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<td></td>
<td>Nearly every day</td>
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<td>Refuse to Answer</td>
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<table>
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<tr>
<th>Q7.</th>
<th>How often do you say grace before you eat?</th>
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<tbody>
<tr>
<td></td>
<td>Never</td>
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<td>Nearly every day</td>
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<td>Refuse to Answer</td>
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<tr>
<th>Q8.</th>
<th>How often do you pray?</th>
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<td>Never</td>
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<td>Nearly every day</td>
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<td></td>
<td>Refuse to Answer</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Q9.</th>
<th>How often do you go to religious services?</th>
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<tr>
<td></td>
<td>Never</td>
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<td>Refuse to Answer</td>
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<thead>
<tr>
<th>Q10.</th>
<th>How often do you ask someone to pray for you?</th>
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<tbody>
<tr>
<td></td>
<td>Never</td>
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<td>Nearly every day</td>
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<td>Refuse to Answer</td>
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</tbody>
</table>
Appendix B

CESD Scale

The following is a list of the ways you might have felt or behaved recently. Please tell us how often you have felt this way during the past week.

Q1. I was bothered by things that usually don't bother me. (Choose one)
   0 Rarely
   1 Some of the time
   2 Occasionally
   3 Most of the time
   8 Refuse to Answer

Q2. I did not feel like eating. My appetite was poor. (Choose one)
   0 Rarely
   1 Some of the time
   2 Occasionally
   3 Most of the time
   8 Refuse to Answer

Q3. I felt I could not shake off the blues even with the help from my family and friends.
    (Choose one)
   0 Rarely
   1 Some of the time
   2 Occasionally
   3 Most of the time
   8 Refuse to Answer

Q4. I felt that I was just as good as other people. (Choose one)
   0 Rarely
   1 Some of the time
   2 Occasionally
   3 Most of the time
   8 Refuse to Answer

Q5. I had trouble keeping my mind on what I was doing. (Choose one)
   0 Rarely
   1 Some of the time
   2 Occasionally
   3 Most of the time
   8 Refuse to Answer
Q6. I felt depressed. (Choose one)

0 Rarely
1 Some of the time
2 Occasionally
3 Most of the time
8 Refuse to Answer

Q7. I felt that everything I did was an effort. (Choose one)

0 Rarely
1 Some of the time
2 Occasionally
3 Most of the time
8 Refuse to Answer

Q8. I felt hopeful about the future. (Choose one)

0 Rarely
1 Some of the time
2 Occasionally
3 Most of the time
8 Refuse to Answer

Q9. I thought that my life had been a failure. (Choose one)

0 Rarely
1 Some of the time
2 Occasionally
3 Most of the time
8 Refuse to Answer

Q10. I felt fearful. (Choose one)

0 Rarely
1 Some of the time
2 Occasionally
3 Most of the time
8 Refuse to Answer

Q11. My sleep was restless. (Choose one)

0 Rarely
1 Some of the time
2 Occasionally
3 Most of the time
8 Refuse to Answer

Q12. I was happy. (Choose one)

0 Rarely
1 Some of the time
2 Occasionally
3 Most of the time
8 Refuse to Answer
Q13. I talked less than usual. (Choose one)

<table>
<thead>
<tr>
<th></th>
<th>Rarely</th>
<th>Some of the time</th>
<th>Occasionally</th>
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<th>Refuse to Answer</th>
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Q14. I felt lonely. (Choose one)

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Q15. People were unfriendly. (Choose one)

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<th>Refuse to Answer</th>
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Q16. I enjoyed life. (Choose one)

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<th>Occasionally</th>
<th>Most of the time</th>
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Q17. I had crying spells. (Choose one)

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<th>Rarely</th>
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<th>Occasionally</th>
<th>Most of the time</th>
<th>Refuse to Answer</th>
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Q18. I felt sad. (Choose one)

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<th>Occasionally</th>
<th>Most of the time</th>
<th>Refuse to Answer</th>
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Q19. I felt that people disliked me. (Choose one)

<table>
<thead>
<tr>
<th></th>
<th>Rarely</th>
<th>Some of the time</th>
<th>Occasionally</th>
<th>Most of the time</th>
<th>Refuse to Answer</th>
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</table>
Q20. I could not get "going." (Choose one)

0  Rarely
1  Some of the time
2  Occasionally
3  Most of the time
8  Refuse to Answer
Appendix C

YSR – Internalizing Problems subscale

The following is a list of items that describe kids. For each item that describes you now or within the past 6 months, please tell us if the item is very true, somewhat true, or not true of you.

<table>
<thead>
<tr>
<th>Q</th>
<th>Item</th>
<th>Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q5</td>
<td>There is little I enjoy. (Choose one)</td>
<td>0 Not true</td>
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<td></td>
<td></td>
<td>1 Somewhat true</td>
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<td></td>
<td></td>
<td>2 Very true</td>
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<td>8 Refuse to Answer</td>
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<tr>
<td>Q14</td>
<td>I cry a lot. (Choose one)</td>
<td>0 Not true</td>
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<td></td>
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<td>1 Somewhat true</td>
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<td>2 Very true</td>
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<td>8 Refuse to Answer</td>
</tr>
<tr>
<td>Q29</td>
<td>I am afraid of certain animals, situations, or places, other than school. (Choose one)</td>
<td>0 Not true</td>
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<td></td>
<td></td>
<td>1 Somewhat true</td>
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<td>8 Refuse to Answer</td>
</tr>
<tr>
<td>Q30</td>
<td>I am afraid of going to school. (Choose one)</td>
<td>0 Not true</td>
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<tr>
<td></td>
<td></td>
<td>1 Somewhat true</td>
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<td>2 Very true</td>
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<td>8 Refuse to Answer</td>
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<tr>
<td>Q31</td>
<td>I am afraid I might think or do something bad. (Choose one)</td>
<td>0 Not true</td>
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<td></td>
<td></td>
<td>1 Somewhat true</td>
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<td>2 Very true</td>
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<td>8 Refuse to Answer</td>
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<tr>
<td>Q32</td>
<td>I feel that I have to be perfect. (Choose one)</td>
<td>0 Not true</td>
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<td></td>
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<td>1 Somewhat true</td>
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<td>2 Very true</td>
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<td>8 Refuse to Answer</td>
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<tr>
<td>Q33</td>
<td>I feel that no one loves me. (Choose one)</td>
<td>0 Not true</td>
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<td></td>
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<td>1 Somewhat true</td>
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<td>2 Very true</td>
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<td>8 Refuse to Answer</td>
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<tr>
<td>Question</td>
<td>Response Options</td>
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<tr>
<td>Q35. I feel worthless or inferior. (Choose one)</td>
<td>0 Not true</td>
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<td></td>
<td>1 Somewhat true</td>
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<td></td>
<td>2 Very true</td>
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<td>8 Refuse to Answer</td>
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<tr>
<td>Q42. I prefer to be alone. (Choose one)</td>
<td>0 Not true</td>
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<td></td>
<td>1 Somewhat true</td>
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<td></td>
<td>2 Very true</td>
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<td></td>
<td>8 Refuse to Answer</td>
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<tr>
<td>Q45. I am nervous or tense. (Choose one)</td>
<td>0 Not true</td>
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<td></td>
<td>1 Somewhat true</td>
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<td>2 Very true</td>
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<td></td>
<td>8 Refuse to Answer</td>
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<tr>
<td>Q47. I have nightmares. (Choose one)</td>
<td>0 Not true</td>
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<td></td>
<td>1 Somewhat true</td>
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<td></td>
<td>2 Very true</td>
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<td></td>
<td>8 Refuse to Answer</td>
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<tr>
<td>Q50. I am too fearful or anxious. (Choose one)</td>
<td>0 Not true</td>
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<td></td>
<td>1 Somewhat true</td>
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<td>8 Refuse to Answer</td>
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<tr>
<td>Q51. I feel dizzy or lightheaded. (Choose one)</td>
<td>0 Not true</td>
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<td>1 Somewhat true</td>
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<td></td>
<td>8 Refuse to Answer</td>
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<tr>
<td>Q52. I feel too guilty. (Choose one)</td>
<td>0 Not true</td>
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<td></td>
<td>1 Somewhat true</td>
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<td></td>
<td>8 Refuse to Answer</td>
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<tr>
<td>Q54. I feel overtired without good reason. (Choose one)</td>
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<td>1 Somewhat true</td>
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<td></td>
<td>2 Very true</td>
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<td></td>
<td>8 Refuse to Answer</td>
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</table>
Q56a. I have aches and pains, (not stomach or headaches), without a known medical cause. (Choose one)
0 Not true
1 Somewhat true
2 Very true
8 Refuse to Answer

Q56b. I have headaches, without a known medical cause. (Choose one)
0 Not true
1 Somewhat true
2 Very true
8 Refuse to Answer

Q56c. I have nausea, (feel sick), without a known medical cause. (Choose one)
0 Not true
1 Somewhat true
2 Very true
8 Refuse to Answer

Q56d. I have problems with my eyes, (not corrected by glasses), without a known medical cause.
(Choose one)
0 Not true
1 Somewhat true
2 Very true
8 Refuse to Answer

Q56e. I have rashes or other skin problems, without a known medical cause. (Choose one)
0 Not true
1 Somewhat true
2 Very true
8 Refuse to Answer

Q56f. I have stomachaches, without a known medical cause. (Choose one)
0 Not true
1 Somewhat true
2 Very true
8 Refuse to Answer
<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
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</table>
| Q56g. I vomit, (throw up), without a known medical cause. (Choose one) | 0 Not true  
1 Somewhat true  
2 Very true  
8 Refuse to Answer |
| Q65. I refuse to talk. (Choose one)           | 0 Not true  
1 Somewhat true  
2 Very true  
8 Refuse to Answer |
| Q69. I am secretive or keep things to myself. (Choose one) | 0 Not true  
1 Somewhat true  
2 Very true  
8 Refuse to Answer |
| Q71. I am self-conscious or easily embarrassed. (Choose one) | 0 Not true  
1 Somewhat true  
2 Very true  
8 Refuse to Answer |
| Q75. I am too shy or timid. (Choose one)      | 0 Not true  
1 Somewhat true  
2 Very true  
8 Refuse to Answer |
| Q102. I don’t have much energy. (Choose one)  | 0 Not true  
1 Somewhat true  
2 Very true  
8 Refuse to Answer |
| Q103. I am unhappy, sad, or depressed. (Choose one) | 0 Not true  
1 Somewhat true  
2 Very true  
8 Refuse to Answer |
| Q111. I keep from getting involved with others. (Choose one) | 0 Not true  
1 Somewhat true  
2 Very true  
8 Refuse to Answer |
Q112. I worry a lot. (Choose one)

0 Not true
1 Somewhat true
2 Very true
8 Refuse to Answer
Appendix D

Parent Convergence Scale

You and your co-parent share responsibility for raising the child participating in this study. Tell us how often you and your co-parent share the following responsibilities regarding this child. Your answers may range from never to often.

How often do you and your co-parent:

Q1. Make major decisions together about this child's life? (Choose one)
   0 Never
   1 Rarely
   2 Sometimes
   3 Often
   8 Refuse to Answer

Q2. Discuss this child's school or medical problems together? (Choose one)
   0 Never
   1 Rarely
   2 Sometimes
   3 Often
   8 Refuse to Answer

Q3. Plan special events in this child's life together? (Choose one)
   0 Never
   1 Rarely
   2 Sometimes
   3 Often
   8 Refuse to Answer

Q4. Make day-to-day decisions about this child's life together? (Choose one)
   0 Never
   1 Rarely
   2 Sometimes
   3 Often
   8 Refuse to Answer

Q5. Talk with each other about this child's achievements? (Choose one)
   0 Never
   1 Rarely
   2 Sometimes
   3 Often
   8 Refuse to Answer
Q6. Talk about the way this child acts? (Choose one)
0 Never
1 Rarely
2 Sometimes
3 Often
8 Refuse to Answer

Q7. Have different ideas about how to raise this child? (Choose one)
0 Never
1 Rarely
2 Sometimes
3 Often
8 Refuse to Answer

Q8. When you and your co-parent talk about how to raise this child, how often is the conversation hostile or angry? (Choose one)
0 Never
1 Rarely
2 Sometimes
3 Often
8 Refuse to Answer

Q9. When this child complains about your co-parent, how often do you usually agree with him or her? (Choose one)
0 Never
1 Rarely
2 Sometimes
3 Often
8 Refuse to Answer

Q10. When you need help with this child, how often do you go to your co-parent for help? (Choose one)
0 Never
1 Rarely
2 Sometimes
3 Often
8 Refuse to Answer
Q11. How often would you say that your co-parent is a help to you in raising this child? (Choose one)

0 Never
1 Rarely
2 Sometimes
3 Often
8 Refuse to Answer
Appendix E

MEIM

In this country, people come from many different countries and cultures, and there are many different words to describe the different ethnic groups that people come from. Some examples of the names of ethnic groups are Black or African American, Hispanic or Latino, Asian American, and Caucasian or White. These questions are about your ethnicity or your ethnic group and how you feel about it or react to it.

Q1. I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs. (Choose one)

Strongly disagree  Disagree  Agree  Strongly agree  Refuse to Answer
1  2  3  4  8

Q2. I am active in organizations or social groups that include mostly members of my own ethnic group. (Choose one)

Strongly disagree  Disagree  Agree  Strongly agree  Refuse to Answer
1  2  3  4  8

Q3. I have a clear sense of my ethnic background and what it means for me. (Choose one)

Strongly disagree  Disagree  Agree  Strongly agree  Refuse to Answer
1  2  3  4  8

Q4. I think a lot about how my life will be affected by my ethnic group membership. (Choose one)

Strongly disagree  Disagree  Agree  Strongly agree  Refuse to Answer
1  2  3  4  8

Q5. I am happy that I am a member of the group I belong to. (Choose one)

Strongly disagree  Disagree  Agree  Strongly agree  Refuse to Answer
1  2  3  4  8

Q6. I have a strong sense of belonging to my own ethnic group. (Choose one)

Strongly disagree  Disagree  Agree  Strongly agree  Refuse to Answer
1  2  3  4  8

Q7. I understand pretty well what my ethnic group membership means to me. (Choose one)

Strongly disagree  Disagree  Agree  Strongly agree  Refuse to Answer
1  2  3  4  8

Q8. In order to learn more about my ethnic background, I have often talked to other people about my ethnic group. (Choose one)

Strongly disagree  Disagree  Agree  Strongly agree  Refuse to Answer
1  2  3  4  8
Q9. I have a lot of pride in my ethnic group. (Choose one)

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Refuse to Answer</th>
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</table>

Q10. I participate in cultural practices of my own group, such as special food, music, or customs. (Choose one)

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Refuse to Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>

Q11. I feel a strong attachment towards my own ethnic group. (Choose one)

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Refuse to Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>

Q12. I feel good about my cultural or ethnic background. (Choose one)

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Refuse to Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>

Q13. My ethnicity is: (Choose one)

- Black or African American 01
- Hispanic or Latino, including Mexican American, Central American, and others 02
- White, Caucasian, Anglo, European American; not Hispanic 03
- Asian or Asian American, including Chinese, Japanese, and others 04
- American Indian/Native American 05
- Mixed; Parents are from two different groups 06
- Other 07
- Don't Know 97
- Refuse to Answer 98

If Q13 is less than 7, then skip to Q15.

Q14. Please write your ethnicity.

__________________________________________________________

__________________________________________________________
Q15. My mother's ethnicity is:  (Choose one)
    Black or African American 01
    Hispanic or Latino, including Mexican American,  
        Central American, and others 02
    White, Caucasian, Anglo, European American; not Hispanic 03
    Asian or Asian American, including Chinese, Japanese, and others 04
    American Indian/Native American 05
    Mixed; Parents are from two different groups 06
    Other 07
    Don't Know 97
    Refuse to Answer 98

*If Q14 is less than 7, then skip to Q17.*

Q16. Please write your mother's ethnicity.

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Q17. My father's ethnicity is:  (Choose one)
    Black or African American 01
    Hispanic or Latino, including Mexican American,  
        Central American, and others 02
    White, Caucasian, Anglo, European American; not Hispanic 03
    Asian or Asian American, including Chinese, Japanese, and others 04
    American Indian/Native American 05
    Mixed; Parents are from two different groups 06
    Other 07
    Don't Know 97
    Refuse to Answer 98

*If Q15 is less than 7, then skip to end.*

Q18. Please write your father's ethnicity.

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References


