Georgia State University
ScholarWorks @ Georgia State University

Psychology Dissertations | Department of Psychology

9-23-2009

The Relations among Parenting Style, Parent-Adolescent Relationship, Family Stress, Cultural Context and Depressive Symptomatology among Adolescent Females

Dayna M.V. Diaz
Georgia State University

Follow this and additional works at: http://scholarworks.gsu.edu/psych_diss

Recommended Citation
Diaz, Dayna M.V., "The Relations among Parenting Style, Parent-Adolescent Relationship, Family Stress, Cultural Context and Depressive Symptomatology among Adolescent Females" (2009). *Psychology Dissertations.* Paper 60.

This Dissertation is brought to you for free and open access by the Department of Psychology at ScholarWorks @ Georgia State University. It has been accepted for inclusion in Psychology Dissertations by an authorized administrator of ScholarWorks @ Georgia State University. For more information, please contact scholarworks@gsu.edu.

THE RELATIONS AMONG PARENTING STYLE, PARENT-ADOLESCENT RELATIONSHIP, FAMILY STRESS, CULTURAL CONTEXT AND DEPRESSIVE SYMPTOMATOLOGY AMONG ADOLESCENT FEMALES

by

Dayna M.V. Diaz

Under the Direction of Gabriel Kuperminc, Ph.D.

ABSTRACT

This study examines the relations between depressive symptom expression and cultural and family contexts among adolescent females from different ethnic groups. Specifically, ethnic identity, parenting style, family stress and the quality of parent-adolescent relationships were examined as potential protective factors for depressive symptom expression among a diverse group of female adolescents. This study addressed the following research questions: 1) Are there ethnic group differences in depressive symptom expression across Latina, African American and Asian adolescent females? 2) Are there ethnic group differences in the association of family processes with depressive symptom expression across these three ethnic groups? 3) Regardless of ethnic group membership, does ethnic identity moderate the association of family processes with depressive symptoms? The sample consisted of 93 female high school students. Overall, 30% of participants reported depressive symptoms in the moderate to severe range. The results of this study indicate that there are few statistically significant differences in depressive symptom expression across Latina, African American and Asian participants; however, Latina participants consistently reported the highest rates of depressive symptoms. Family stress and authoritative parenting style were significant predictors of depressive symptom expression, such that participants of all ethnicities

who reported high levels of depressive symptoms also reported high levels of family stress and low levels of authoritative parenting. No ethnic group differences were found for authoritative parenting, family stress or ethnic identity indicating that these processes were comparable across ethnic groups. These results indicate that family process variables are important predictors of depressive symptoms in adolescent females, which lead to recommendations that adolescent treatment of depressive disorders should include family therapy. In addition, due to the 30% prevalence rate of depression in this study, it is recommended that mental health professionals and school systems collaborate in order to offer outreach programs through local schools.

INDEX WORDS: Adolescents, Depression, Ethnic minorities, Authoritative parenting, Family stress, Ethnic identity

THE RELATIONS AMONG PARENTING STYLE, PARENT-ADOLESCENT RELATIONSHIP, FAMILY STRESS, CULTURAL CONTEXT AND DEPRESSIVE SYMPTOMATOLOGY AMONG ADOLESCENT FEMALES

by

Dayna M.V. Diaz

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

Georgia State University

2005

Copyright by

Dayna M.V. Diaz

2005

THE RELATIONS AMONG PARENTING STYLE, PARENT-ADOLESCENT RELATIONSHIP, FAMILY STRESS, CULTURAL CONTEXT AND DEPRESSIVE SYMPTOMATOLOGY AMONG ADOLESCENT FEMALES

by

Dayna M.V. Diaz

Major Professor: Gabriel Kuperminc, Ph.D.
Committee: Lisa Armistead, Ph.D.
Greg Jurkovic, Ph.D
Larry Riso, Ph.D.

Electronic Version Approved:

Office of Graduate Studies
College of Arts and Sciences
Georgia State University
August 2005

ACKNOWLEDGEMENTS

There are many people without whose support this dissertation would not have been possible. I am grateful to my advisor and chair, Dr. Gabriel Kuperminc for his guidance and support throughout this process. I also wish to express my appreciation to my committee members Dr. Lisa Armistead, Dr. Greg Jurkovic and Dr. Larry Riso for their knowledge, wisdom and insights.

In addition, I would like to acknowledge my family for providing me with a support system that has allowed me to pursue and attain my goals. Without the constant support of my family this would not have been possible. To my husband Alex, thank you for your undying patience, understanding, encouragement and love throughout this process. To my son, Justin, thank you for being my inspiration. I would also like to thank my parents Daniel Diaz and Connie Davis for encouraging my dreams and always believing that I could make them come true. To my grandparents, Norris and Christine Davis, thank you for always making me feel loved and special. With the two of you on my side I have always known that anything is possible. To my colleagues and friends: Michele Laughrey, Dr. Chaundrissa Smith and Sheridan Thorn, thank you for always being willing to assist and support me throughout this process.

TABLE OF CONTENTS

Page

ACKNOWLEDGEMENTS……..v

LIST OF TABLES…….viii

LIST OF FIGURES……ix

CHAPTER

1 INTRODUCTION……1

2 PURPOSE OF THIS STUDY……4

Defining Depression in Adolescence.……...4

Adolescence and Depression.……...6

Cultural Context……8

Familial Context……17

The Present Study…….21

Research Questions and Hypotheses……21

3 METHODS.……...24

Participants…….24

Procedures…….25

Measures……25

Analysis Plan……..31

4 RESULTS……..33

Preliminary Analyses…….33

Correlational Analyses……..36

Predictors of Depressive Symptoms…….39

5 DISCUSSION……..50

Group Differences……....50

Limitations and Implications……...53

REFERENCES……...55

APPENDICES……..……..66

A Coefficient Alphas by Ethnic Group…….……..……67

B Study Protocol…….……..……68

LIST OF TABLES

Page

TABLE 1. Main-Effect Differences Between Ethnic Groups on Depressive Symptoms and Internalizing Problems…….….34

TABLE 2. Main-Effect Differences Between Ethnic Groups on Family Processes and Ethnic Identity…….37

TABLE 3. Intercorrelations of Depressive Symptoms and Parenting Measures based on Adolescent Reports……..38

TABLE 4. Regression Analyses of Depressive Symptoms on Ethnicity, Socioeconomic Status and Measures of Authoritative Parenting, Family Stress and Relationship Quality as Reported by Adolescents……...41

TABLE 5. Regression Analyses of Internalizing Problems on Ethnicity, Socioeconomic Status and Measures of Authoritative Parenting, Family Stress and Relationship Quality as Reported by Adolescents……...43

TABLE 6. Regression Analyses of Depressive Symptoms on Ethnic Identity, Immigration, Socioeconomic Status and Measures of Authoritative Parenting, Family Stress and Relationship Quality as Reported by Adolescents…….46

TABLE 7. Regression Analyses of Internalizing Problems on Ethnic Identity, Immigration, Socioeconomic Status and Measures of Authoritative Parenting, Family Stress and Relationship Quality as Reported by Adolescents…….48

LIST OF FIGURES

FIGURE 1. Interaction of Ethnic Identity by Family Stress……..49

CHAPTER 1

There is consensus across studies of clinical and community samples that adolescent girls report and exhibit more symptoms of depression than boys and that these symptoms persist into adulthood with the prevalence of depression in community studies of adults being about twice as high for women as men. In contrast to early models of adolescent development (e.g. Freud, 1953), recent work in adolescence has been characterized by an increasing interest in gender-specific developmental issues experienced by girls (e.g. Gilligan, Lyons & Hanmer, 1990). The majority of recent studies confirm that, relative to boys, the period of adolescence represents an especially significant challenge for the psychological adjustment of girls (McGrath, Keita, Strickland, & Russo, 1990). Although family and identity processes have been noted as important indicators of mental health (Leadbeater, Kuperminc, Blatt, & Hertzog, 1999), little is known about cultural variations in these processes (Kuperminc, Blatt, Shahar, Henrich, & Leadbeater, 2004). This study will focus on the relation between depressive symptoms and family and cultural processes that vary among adolescent girls from different ethnic groups.

Although adolescent boys and girls share some similar experiences, society, peers, and parents tend to place expectations on youth, based in large part on the adolescent's gender. The process of gender socialization has been implicated in the risk for female depression during the adolescent period (Pavlidis, & McCauley; 2001). For example, parents tend to encourage their adolescent sons to become increasingly independent from their families and to pursue high status careers and goals; whereas

parents of girls encourage them to remain close to their families, to defer to others' needs and desires and, often times, to narrow their aspirations and activities to those prescribed by the feminine sex role. For instance, Simmons and Blyth (1987) conducted a study regarding parents' attitudes toward their children (6th to 10th graders) and found that boys were more likely than girls to report that they did not need their parents' permission to go places after dark and to report being left home alone. In addition, even though the girls in the study were more likely to report wanting to go to college, the boys were more likely to report that their parents expect them to have a career. In another study conducted with 49 African American mother-daughter dyads, Cauce, Hiraga, Graves, Gonzalez, Ryan-Finn, & Grove (1996) found that the mothers reportedly struggle with allowing their daughters to become more independent. Several mothers noted that not only were their African American daughters faced with hostile and dangerous environments, but they were also less likely to be given a break when they erred than were white teens. A relatively common saying among African Americans is that "Mothers *raise* their daughters and *love* their sons"(Cauce, etal., 1996, p.100). This powerful statement exemplifies the experiences that come with African American womanhood.

Parenting strategies such as monitoring children's whereabouts and activities not only vary by gender but likely vary according to cultural beliefs and acceptable role models, suggesting the need to consider variations in the linkages of family and cultural influences to the emergence of depressive symptomatology in adolescent girls (Carlson, Uppal, & Prosser, 2000). For instance, Radziszewska, Richardson, Dent and Flay

(1996) conducted a study regarding parenting styles and several demographic factors, such as gender and ethnicity. In this study involving 3,993 ninth-grade students, the researchers found a significant relation between gender and parenting styles, such that boys were more likely than girls to have more permissive parents. In addition, they found significant ethnic differences among parenting styles, such that Caucasian parents were more likely to utilize an authoritative parenting style than were African-American, Asian and Latino parents. Given the unique set of challenges faced by girls during adolescence and their higher rates of depression, it seems prudent to focus research attention on this population. This study seeks to examine possible ethnic/cultural variation in unique factors that contribute to the rise in depression rates among ethnically diverse females during adolescence.

Historically, depression among children and adolescents has received little attention, while externalizing disorders (e.g. conduct disorder) were widely studied. However, within the last two decades research aimed at understanding internalizing disorders, such as depression, among children and adolescents has increased. According to the 1992 National Comorbidity Survey, at any given time, almost 2% of children aged 7-12 in the United States have major depression, with the rate jumping to 6-9% among adolescents, a rate similar to that of adults (Kessler, McGonagle, Swartz, Blazer & Nelson, 1993). According to more recent studies (Fombonne, 1998; Lewinsohn, et al., 1998) approximately 8-10% of adolescents scored above the cutoff for clinical depression on self-report measures, such as the Center for Epidemiological Studies Depression Scale.

Affective disorders, such as depression are among the most commonly diagnosed mental health problems leading to hospitalization among American adolescents (Allen, Denner, Yoshikawa, Seidman & Aber, 1996). For example, estimates indicate that nearly 1 of every 6 youth admitted to psychiatric hospitals in the U.S. had an intake diagnosis of a depressive disorder (Silver, 1988). Adolescent depression has been associated with serious consequences including, poor psychosocial and academic outcomes and increased risk for drug and alcohol abuse and suicide (Birmaher, et al., 1996). Due to the serious and possibly life long consequences of depression, it is imperative that researchers and clinicians alike gain a greater understanding of some of the factors associated with adolescent depression.

CHAPTER 2

This study examines the relations between depressive symptom expression and cultural and family contexts among adolescent females from different ethnic groups. Specifically, ethnic identity, parenting style, family stress and the quality of parent-adolescent relationships were examined as potential protective factors for depressive symptom expression among a diverse group of female adolescents.

Defining Depression in Adolescence

According to the DSM-IV (American Psychiatric Association, 1994), diagnosis of a major depressive disorder (MDD) requires the presence of at least five of nine symptoms during the same 2-week period, with one of the symptoms being either depressed mood or loss of interest or pleasure for most of the day nearly every day. In the case of children and adolescents, this criterion can also be met if the youth has

experienced irritable mood or loss of interest or pleasure for most of the day nearly every day during a 2-week period. Other symptoms of depression that may be displayed by adolescents include, significant weight change, insomnia or hypersomnia, anhedonia, psychomotor agitation or retardation, fatigue or loss of energy, feelings of worthlessness or inappropriate guilt, diminished ability to think or concentrate, and recurrent thoughts of death or suicidal ideation. In order to be diagnosed with MDD, the above mentioned symptoms must not be attributable to substance abuse, a general medical condition, or bereavement.

Many researchers have suggested that criteria for DSM-IV depressive disorders are too stringent and result in an underestimate of youth with significant levels of depressive symptoms (Essau, Petermann & Reynolds, 1999). For instance, an adolescent may present with a level of depressive symptoms that is not sufficient to meet criteria for a DSM-IV disorder (i.e. report 4 out of 9 symptoms), yet her symptom severity level may be considered clinically relevant and a valid target for intervention. This dilemma has been referred to as the “threshold problem” in the DSM-IV diagnostic system and has been debated by several researchers. For example, Gotlib, Lewinsohn, and Seely (1995) found that adolescents who had clinically significant levels of depressive symptoms but did not meet criteria for major depression demonstrated significantly poorer psychosocial functioning as compared to a non-depressed group. In the same study, adolescents with clinically significant depressive symptoms displayed significantly poorer psychosocial functioning than did the non-depressed group and

displayed psychosocial functioning similar to a comparison group of adolescents diagnosed with major depression.

In an attempt to further understand and classify adolescent depressive symptoms, researchers have devised other strategies. For example, Compas and colleagues (1993) have explored the taxonomy, assessment and diagnosis of depression in adolescents and highlight three separate hierarchical levels of depression: depressed mood, depressive syndromes and depressive disorder. Common to all three levels are sad or depressed mood, low self-esteem and feelings of worthlessness. Depressed mood affects approximately 15% to 40% of adolescents depending on the time frame employed and the gender of the youth, indicating that up to 40% of adolescents experience transient levels of depressed mood. For some youth their depressed mood will continue and develop into a syndrome, which includes both depressive and anxious symptoms. Depressive disorder includes somatic and vegetative symptoms that are not included in the depressed mood or depressive syndrome categories. In addition, depressive disorders involve dysregulation of somatic functioning, appetite and/or concentration. In the present study, depressed mood as evidenced by self-reports of depressive symptoms will be studied in a community sample of adolescent females.

Adolescence and Depression

It is during the adolescent period that girls begin to evidence higher rates of depression than do boys. During childhood, rates of depression are comparable between girls and boys; however, during adolescence depression becomes more

common in girls, reaching a 2:1 adult ratio by late adolescence (Lewinsohn, Hops, Roberts, Seely & Andrews, 1993; Nolen-Hoeksema, 1990; Rutter, 1986; Wichstrom, 1999). Although the timing of the emergence of this gender difference in depression rates has been found to vary from as early as 10 to 14 years of age (Angold, Costello & Worthman, 1998; Kessler, McGonagle, Swartz, Blaser, & Nelson, 1993) to 15 to 19 years of age (Burke, Burke, Reiger & Rae, 1990), the onset of a higher depression rate for girls during adolescence emphasizes the importance of studying salient factors affecting girls, which occur during this developmental period. Why are girls at greater risk for depression beginning in adolescence? This study will focus on family processes and ethnic identity factors that have been identified as reducing or increasing risk for depressive symptoms.

Depression during adolescence has been associated with personality characteristics of the adolescent, family characteristics, and community wide indicators such as exposure to trauma. Increasingly, research into depression is moving away from a focus on isolated factors and towards developing an understanding of how risk factors evolve and are integrated across a number of biological, psychological, familial, environmental and social systems (Compas, Grant, & Ey, 1994). In addition to identifying risk factors for depression, more recently researchers have sought to gain greater understanding with regard to factors that buffer or reduce the likelihood of depressive symptoms. These buffering effects are considered protective factors. Similar to risk factors, protective factors have been found at multiple levels of analysis and

include familial, social and individual characteristics (Leadbeater, Kuperminc, Blatt & Hertzog, 1999; Loukas & Prelow, 2004).

Cultural Context

American society is becoming increasingly diverse. The U.S. Census Bureau (2000) estimates that 30% of the total population consists of ethnic minorities. These estimates indicate that African Americans comprise 12.9% of the total population with Hispanic Americans and Asian Americans estimated at 12.5% and 4.2% respectively. As some researchers have noted, these changing demographics indicate the necessity for a broader research base containing more ethnic minority samples (Graham, 1992) and the consideration of influences of culture when researching development and behavior (Kuperminc et al., 2004; Betancourt & Lopez, 1993; Shweder, 1990). When studying adolescent development among American youth, the diversity of their experiences and cultural contexts are vital factors to consider. Culture influences the lives of adolescents in many ways: language, values, beliefs, as well as social norms and expectations. In addition, adolescent girls are often expected to conform to rigidly defined feminine sex roles. Through an adolescent's own experience of familial and cultural norms, she learns how to control culturally acceptable and unacceptable behaviors. In addition, culture affects parenting strategies, and the development of emotions and self-concept, which are all key components of adolescents' lives. For example, African American mothers have been characterized as exercising high levels of behavioral control and exhibiting a stricter parenting style than do Caucasian mothers (Rickel et al., 1988). Given the realities of racism and discrimination that many African

American youth face, this high level of control exerted by their mothers may be an attempt to mediate between their children and an antagonistic society. Finkelstein, Donenberg and Martinovich (2001) conducted a study, which included 111 adolescent girls (45% African American, 37% Caucasian, and 18% Latina) seeking outpatient mental health services. They found that both African American and Latina girls reported higher levels of maternal control than did Caucasian girls; however, high levels of maternal control were predictive of fewer symptoms of depression among African American girls only. In summary, it is likely that the cultural context that youth experience affects their mental health in several ways. For example, cultural norms affect the parenting styles of adolescents' parents, which in turn affect the adolescent-parent relationship and the adolescents' perceptions of themselves.

The term ethnicity, which refers to a group that shares a common nationality, culture, or language, is interrelated with culture. According to Gaw (1993), "The root concept for the term 'ethnicity' is culture. Ethnicity is a derivative concept that recognizes the in-group values conceptualized by a particular cultural group, such as Italian Americans, or French Canadians" (p. 16). Culturally accepted behaviors vary between and among people of different ethnic groups. For example, obedience, filial piety, and taciturnity, which are highly valued in Asian culture, are often viewed negatively in American society, as a lack of self-confidence, assertiveness, and the ability to express oneself (Choi, 2002). Personality traits may be shaped by cultural influences. For example, feelings of isolation and anxiety among Asian Americans, fatalism among Latinos, and self-hatred among African Americans have been referred

to as culture-related personality traits (Choi, 2002; Johnson-Powell, Yamamoto, Wyatt, & Arroyo, 1997; Goldberger & Veroff, 1995). It is important to note, however, that acknowledging cultural influences does not negate the importance of individual differences within and across cultural groups. In the present study, the term ethnicity will be used to discuss groups of adolescent females from Latino, Asian American and African American cultural origins.

The concepts of ethnic identity and acculturation have often been used interchangeably; however, more recently acculturation has been considered a broader construct, which encompasses a wide range of behaviors, attitudes, and values that change with contact between cultures (Phinney, Horenczyk, Liebkind, & Vedder, 2001). Utilizing this newer conception, ethnic identity represents a component of acculturation that focuses on the subjective sense of belonging to a group or culture (Phinney, 1990). Thus, ethnic identity can best be understood as a dynamic construct which represents an individual's sense of self in terms of membership to a particular ethnic group (Liebkind, 1992; Phinney, 1990). The various aspects of ethnic identity include self-identification, feelings of belongingness and commitment to a group, a sense of shared values, and attitudes toward one's own ethnic group. These attitudes and feelings evolve and change over time in response to developmental and contextual factors, and therefore represent a critical developmental task of adolescents, particularly in complex modern societies (Marcia, Waterman, Matteson, Archer, & Orlofsky, 1993). Given the complexity of the environments that the participants in this study must negotiate, ethnic

identity as it relates to depression in a culturally diverse group of adolescent females will be examined.

Ethnic Groups

Racism, prejudice, and low socioeconomic status are social realities faced by many ethnic minority youth. Even though African Americans are one of the oldest ethnic minority groups in America, social and economic oppression affects the well-being of many African American youth. For example, African American adolescents are four times more likely and Latinos are three times more likely to be living below the poverty line than are Caucasian adolescents (Siegel, Hyg, Aneshensel, Taub, Cantwell, & Driscoll, 2001). Being of lower social class is associated with higher emotional distress and has been identified as a significant risk factor for adolescent depression (McLeod & Shanahan, 1996). On the other hand, strong family bonds with extended relatives are often found among African-American families. A cohesive family or family support has been regarded as one of the strongest resources protecting against mental distress in adolescents (Garber, Little, Hilsman, & Weaver, 1998; Harris & Molock, 2000) and may serve as a buffer or protective factor for African American youth.

A rapidly growing ethnic group in the U.S., Latinos represent a multitude of nationalities and cultures. The term, Latino, refers to people with family origins in the Americas and the Caribbean who use Spanish as their native language. For example, according to the U.S. Census Bureau (2000), Latinos in America comprise the following sub-groups: 66.1% Mexican, 14.5% Central and South American, 9% Puerto Rican, 4% Cuban, and 6.4% other Hispanic. Although Latinos are diverse with respect to

socioeconomic status and immigration backgrounds, they share a common language and similar cultural elements. For example, Latinos have been described as embracing a collectivistic orientation (Hofstede, 1980), in which family unity and allegiance is the norm; however, often times when Latina youth come into contact with more individualistic cultures, such as the United States, acute tensions are created due to the opposing value systems. This phenomenon is often referred to as acculturative stress (Berry, 1990; Betancourt & Lopez, 1993). Latina girls, who have immigrated to the United States, have been described as living in two communities: one at home with their family and another in the Anglo world (Salguero & McCusker, 1996). For example, a girl who has been raised in a Latino culture, emphasizing femininity in women may experience identity and gender role confusion when exposed to American culture, which allows for a wider range of acceptable gender roles for females. The stresses associated with trying to navigate two differing cultures often results in emotional distress. Ethnic background can even effect symptom expression. For example, the DSM-IV (APA, 1994) discusses several culture-bound syndromes common in Latino cultural groups, including “nervios,” “ataque de nervios,” and “susto.” All of these forms of symptom expression contain somatic complaints such as sleep difficulties and may resemble symptom presentations associated with mood disorders such as depression.

Another minority group that is growing rapidly in the United States consists of people from a variety of Asian cultures, representing a diverse array of individuals who share some cultural experiences. Asian Americans have been referred to as a “model minority” due to their high levels of academic and economic achievement (Lee, 1997);

however they are one of the most understudied minority groups, especially with regard to mental health. Because education is strongly valued in many Asian families, adolescents who do not meet their parent's academic expectations may feel that they are a disgrace to their parents and become anxious or depressed (Lee, 1997). In addition, adolescents from communal cultures, such as Asian Americans, have been found to highly value the well-being of others and define their self-worth through relationships, especially with family members (Lee, 1997). Again, cultural factors have been found to affect symptom expression. For example, one study found that Japanese participants tended to exhibit difficulties in their interpersonal relationships as a symptom of depression, rather than focusing on their emotions (Marsella, Kinzie, & Gordon, 1973). In Asian culture, which tends to stress conformity and discourage verbal expressiveness depressed adolescents often become withdrawn and report vague somatic complaints (Lee, 1997). For instance, in a nationally representative sample, Asian adolescents reported the highest somatic symptom scores (Rhee, 2001).

Ethnic Group Differences and Depression

Evidence of ethnic group differences in rates of depression has been mixed (Petersen et al., 1993). For example, in two of five studies where race was examined, Black adolescents reported higher rates of depressive symptoms than did White adolescents (Fleming & Offord, 1990). Similarly, results from a study of 3,294 high school students indicated that Blacks and Latinos were higher in depressive symptoms than Whites, with Latina females exhibiting the highest rates of all (Emslie, Weinberg, Rush, Adams, & Rintelmann, 1990). Conversely, Nettles and Pleck (1994), reviewed

several studies and found that rates of depressive symptoms in Black samples were typically lower than among White youths. Similarly, results from a clinic-based study of depression including 2,415 high-risk adolescents in 10 cities indicated that White youth had higher numbers of depressive symptoms than did Blacks (Stiffman, Cheuh, & Earls, 1992). In one of the largest multi-ethnic studies of adolescents (Dornbusch, Mont-Reynaud, Ritter, Chen, & Steinberg, 1991), results indicated that both Blacks and Latinos reported fewer depressive symptoms than did White and Asian American youth, after controlling for negative life events. In contrast, epidemiological data from a cross-cultural study involving Chinese American, Mexican American, and Anglo American adolescents indicated that Asian American adolescents consistently reported the lowest rates of depression among all groups studied (Roberts, Roberts, & Chen, 1997). In the same study, Mexican American adolescents reported the highest rates of depression, with a prevalence rate of 12%. Differences have also been found among Latinos from different nations. For example, in one study Puerto Ricans were found to report more depressive symptoms than did Mexican Americans or Cubans (Malgady, Rogier, & Constantino, 1990). The studies discussed above indicate that there are differences both between and within ethnic groups in rates of depressive symptoms among adolescents. Cross-cultural research continues to provide valuable information regarding cultural variations in depressive symptom expression; however less is known about the experience of culturally diverse female adolescents.

Data specifically on females within racial and ethnic groups is hard to find; however, a few studies have been conducted. For example, Gibbs (1985) found no

difference between Black and non-Black female adolescents in depressive symptoms. Likewise, Leadbeater and Linares (1992) did not find any differences in depressive symptoms among Black and Puerto Rican adolescent mothers. In contrast, two national surveys found gender differences in racial/ethnic groups. As already mentioned, Emslie et al. (1990) found that Latino females were the most depressed group in their study. In addition, Roberts and Sobhan (1992) found among their sample of 2,200 adolescents that females reported more symptoms than did males across all ethnic groups. They also found that Mexican American adolescents were highest in depressive symptoms across racial/ethnic groups. Salguero & McCusker (1996) studied a clinical sample of forty-one Latina adolescent girls. The adolescent females ranged in age from 14 to 18 and presented at a child and family guidance center, which serves a mostly indigent ethnic minority population, in a low-income neighborhood. Many of the girls in this sample were Puerto Rican. Twenty-four percent of the 41 girls reported that they spoke Spanish only, 51% reportedly spoke both English and Spanish, and 24% spoke English only. The authors used language spoken as an indicator of level of acculturation, to analyze the effects of acculturation on the expression of depressive symptoms. Forty-nine percent of the female adolescents in this study reported depressive symptoms. Of the adolescents who reported depressive symptoms, 70% of Spanish only speakers reported depressive symptoms; whereas, only 20% of English only speakers reported depressive symptoms.

Given these conflicting results regarding the role ethnicity plays with regards to depressive symptoms, researchers have begun to consider other social indicators, such

as social class. One study (Siegel, Hyg, Aneshensel, Taub, Cantwell, & Driscoll; 2001) compared four ethnic-racial groups (African American, Asian American, Latino, and non-Hispanic White) to determine whether there is an impact of race-ethnicity on depressed mood independent of social class. Among their sample of 877 adolescents between the ages of 12 and 17 years, females reported significantly higher symptoms of depression than did boys. Latinos reported more depressive symptoms than any of the other ethnic groups. Adolescents whose mother or father had less than a high school education reported higher levels of depressive symptoms than did teens whose parents had completed twelve or more years of schooling. In addition, youth living below the poverty line reported more depressive symptoms than did those above the poverty live; however, even when controlling for income Latinos had higher levels of depressive symptoms. Siegel et al. (2001) suggest that the higher rates of depression found among their Latino participants may be attributable, in part, to the Latino adolescents' greater exposure to noxious social conditions, especially chronic stressors, such as poverty; while also recognizing that factors other than economic resources contributed to the observed symptom pattern. In a longitudinal study of 448 middle school aged children, Kuperminc, et al. (2004), compared three ethnic groups (Black, White and Latino) to determine if socio-economic status (SES) moderated differences in ethnic group patterns of change in internalizing problems, including symptoms of depression, anxiety, social withdrawal, and somatic complaints. Their findings indicate that girls reported higher levels of internalizing problems than did boys and that SES was unrelated to changes in internalizing problems. In addition, when considering the relation between

internalizing problems and quality of family relationships Kuperminc et al. (2004), found that increases in perceived quality of parental relationship were associated more strongly with decreases in internalizing problems for Latino adolescents than for White and Black adolescents. This study indicates that cultural and familial characteristics may underlie differences found in the relation between quality of family relationships and adolescent internalizing problems.

Familial Context

Perhaps the most well-documented domain impacting adolescent functioning and mental health is the family context. Family interactions, in particular, have been associated with a range of adolescent difficulties. Although, interaction patterns have been clearly articulated in families of adolescents with externalizing disorders (Frick, 1994; Patterson & Stouthamer-Loeber, 1984), less is known about how family interactions relate to internalizing disorders, such as depression. Even less is known about the effects of family contexts across diverse ethnic groups; however, recently researchers have begun to address this gap in the literature. In addition, few studies examine multiple family processes in order to ascertain the importance of various family interactions. Thus, there are many questions regarding the independent contributions of processes such as parenting style, quality of parent-adolescent relationships, and the potential negative effects of family stress.

Quality of the parent/child relationship. There is a large body of evidence to suggest that positive parent-child relationships are beneficial to adolescents (Marcus & Betzer, 1996; Windle, 1992) and that such relationships can serve as a protective factor

against delinquency and depression (Juang & Silbereisen, 1999). According to this perspective, stressful circumstances may or may not be detrimental to an adolescent's adjustment and mental health depending on whether the adolescent senses that her emotional needs are being met by her care-givers. For example, Field, Diego & Sanders (2001) found among their sample of 70 high school seniors that physical affection with parents explained 13% of the variance in depression scores. They also found significant differences between depressed and non-depressed adolescents in terms of verbal intimacy with parents. Similarly, Juang and Silbereisen (1999) found among their sample of 283 German adolescents that supportive parenting, as measured by the adolescents' perceptions regarding their parents' sensitivity, predictability and school involvement, was negatively related to adolescents' levels of depression. In the same longitudinal study, Juang and Silbereisen (1999) found that adolescents from consistently supportive families reported lower mean levels of depression compared to those from inconsistently supportive parents. Gender differences have been found with regard to the protective effects of positive parent-child relationships. For instance, in a longitudinal study of 460 middle school students, Leadbeater, et al. (1999) found that the direct protective effects of attachment to parents on internalizing problems, such as depression, were stronger for girls than boys. The authors discuss this finding in the context of reviews (Gore, Aseltine, & Colten, 1993; Leadbeater et al., 1995; Zahn-Waxler, 1993), which have suggested that girls' greater socialization for self-regulation and sensitivity to interpersonal concerns increases their vulnerability to internalizing problems compared with boys.

Parenting styles. In the last decade, research has provided strong evidence of associations between parenting styles and variations in adolescent outcomes (Baumrind, 1991; Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994; Weiss & Schwartz, 1996). By focusing on the general emotional climate within the home, including aspects of parental monitoring and relationship quality, researchers have identified parenting styles that vary along dimensions of warmth/nurturance and control. As originally conceptualized by Baumrind (1967, 1971), parenting typologies consist of authoritative, permissive, authoritarian, and disengaged parenting styles. Authoritative parents are characterized as being demanding and responsive. They tend to be warm, yet maintain a moderate level of control. Authoritative parents' disciplining methods tend to be supportive rather than punitive. Permissive parents are characterized as being non-directive. They tend to be more responsive than demanding, and avoid confrontation. Conversely, authoritarian parents are characterized as being demanding and directing, but not responsive. They tend to be hostile and overcontrolling, resulting in aggressive or withdrawn children. Lastly, disengaged parents are characterized as being neither demanding nor responsive. These parents tend to provide neither monitoring nor support; however, they may act in rejecting or neglecting manners. Previous research has found that both adolescents' and parents' perceptions of parental overcontrol are associated with higher levels of depressive symptoms (Magnussen, 1991).

Family Stress. More recently, researchers have begun to study the effects of family stress on the mental health of youth. Family stress has been associated with

depressive symptoms in adults and children and encompasses a wide range of experiences including financial stress (Conger, Rueter & Conger, 2000), family conflict, physical illness and exposure to trauma. Research also suggests that there are gender differences in adolescent depression as a response to stress (Compas, Grant & Ey, 1994).

In addition, family conflict has been hypothesized to impact youth both directly and indirectly. In the direct effects model, family conflict directly impacts children's functioning and is not mediated through changes in parenting practices. According to an indirect effects model, marital relationships affect children's mental health through changes in the parent-child relationship (Conger et al., 1992; Fauber, Forehand, Thomas & Wierson, 1990). There is considerable evidence supporting both the direct effects (Cummings & Davies, 1994; Fincham, 1998) and the indirect effects models (Conger et al., 2002; Cowan, Cowan, Schultz, & Heming, 1994; Margolin, Christensen, & John, 1996). In one study of 1,080 ethnically diverse (Latina, Asian American and African American) early adolescent females (Carlson, Uppal & Prosser, 2000) researchers utilized family stress as a proxy for parental unavailability and found that family stress was a significant predictor of girls' self-esteem across all ethnic groups. A multitude of studies with adolescents have found that low levels of self-esteem are associated with negative outcomes, including depressive symptoms and a lack of general well-being (Baldwin et al., 1989; Dekovic, 1999).

The Present Study

In this study, depressed mood as evidenced by self-reports of depressive symptoms is studied in a culturally diverse community sample of adolescent females. Specifically, the manner in which adolescent depressive symptoms are expressed in different ways across ethno-cultural groups is examined. For example, vegetative symptoms such as sleep and eating changes as well as vague somatic complaints such as headaches and stomachaches have been found to be culturally acceptable ways to express depression in both Asian and Latino families. Some studies have found that African American participants reported more affective symptoms, such as irritability compared to Caucasian counterparts (Baker, 2001). This study examined female adolescents' depressive symptom expression among culturally diverse participants.

Several measures of family processes are examined as protective factors for depressive symptoms. Parenting styles, parental monitoring, parent-child attachment, family stress and perceived acceptance have all been found to impact depressive symptoms; however, few cross-cultural studies have been conducted with adolescents. This study examines the relations between the above mentioned family processes and depressive symptom expression among culturally diverse female adolescent participants.

Research Questions and Hypotheses

The following research questions and hypotheses are examined:

1) Are there ethnic group differences in depressive symptom expression across Asian, Latina, and African American adolescent girls? Based on previous research, it is expected that Latina and Asian participants will endorse

significantly more somatic/vegetative symptoms of depression than will African American participants. Ethnic group differences are also examined for social withdrawal, anxious/depressed and affective/cognitive symptoms; however, conflicting findings in the literature make it difficult to make specific hypotheses about group differences.

2) Are there ethnic group differences in the association of family processes with depressive symptom expression across Asian, Latina, and African American adolescent girls? It is expected that authoritative parenting style, and relationship quality will serve as protective factors for depressive symptom expression among adolescent females across the three ethnic groups studied. Family stress is hypothesized to be a risk factor for depressive symptom expression across culturally diverse adolescent females. However, ethnic group status is expected to moderate the strength of association of family processes with symptoms. Specifically:
    a) Ethnic group membership is expected to moderate the association of authoritative parenting style with symptoms of depression. In general, high levels of perceived parental control are expected to predict fewer symptoms of depression among African American participants, but not Latina or Asian adolescents.
    b) In addition, it is predicted that ethnic group membership will moderate the association of parent-adolescent relationship quality with symptoms of depression. It is expected that positive perceptions of parent-adolescent

relationships will be predictive of fewer symptoms of depression; however, perceived quality of parental relationship will be more strongly negatively associated with depressive symptoms among Latina and Asian participants than African American participants.

c) Ethnic group membership will moderate the association of family stress with symptoms of depression. Based on previous research, it is predicted that the relation between family stress and depressive symptoms will differ significantly across ethnic groups; however, due to conflicting findings in the literature it is difficult to make specific hypotheses about ethnic group differences.

3) Regardless of ethnic group membership, does ethnic identity moderate the association of family processes with depressive symptoms? It is expected that ethnic identity will moderate the association of family processes (authoritative parenting style, quality of parent-adolescent relationship and family stress) with depressive symptoms. It is expected that participants with a greater sense of belonging to an ethnic group will endorse fewer depressive symptoms. It is hypothesized that adolescents who report a combination of strong ethnic identity and positive parenting will report the fewest depressive symptoms; whereas, adolescents endorsing weak ethnic identity combined with poor parenting will report the most depressive symptoms.

CHAPTER 3

Method

Participants

The sample was recruited from an ethnically diverse, urban public high school in the southeastern United States. All female students enrolled in health and physical education classes were invited to participate; however, the focus was on recruiting girls from each of the following ethnic groups; Latina, African American, and Asian American. Of the 178 total female students enrolled in health or physical education classes, 25 were unable to be located over the course of data collection. Of the 153 students contacted the sample consisted of 93 female students, representing a 60% response rate. Data were collected from all female students who returned a signed adolescent assent form and a parental permission form; however, not all data are used in each analysis.

The average age of participants was 15.4 years (SD=1.2, range 13.5 to 19.6 years of age). Fifty-one (55%) participants were U.S. born and 42 (45%) were immigrants. Of the participants, 43 (46.2%) self-identified as Latina including 16 (37.2%) U.S. born and 27 (62.8%) immigrants. Latina immigrants were from Mexico (46.5%), Puerto Rico (2.3%), El Salvador (4.7%), Peru (4.7%), and Guatemala (4.7%). Twenty-nine (31.2%) participants self-identified as African American all of whom reported that they were born in the U.S. Fourteen (15.1%) participants self-identified as Asian including 3, who were (21.4%) U.S. born and 11 (78.6%) immigrants. Asian immigrant participants were born in Vietnam (35.7%), China (14.3%), Bangladesh (21.4%), and

Korea (7.1%). Four (4.3%) participants self-identified as African including 2 (50%) who were U.S. born and 2 immigrants, from Ethiopia and Gambia. Of the 93 participants, 3 (3.2%) self-identified as European or Caucasian including 1 U.S. born female student and 2 immigrants, who were born in Yugoslavia and Belarus.

Procedures

All female students enrolled in health and physical education classes were given consent forms to present to their parents. Those students that returned signed consent forms indicating their parent's permission to participate were provided with adolescent assent forms. Students completed questionnaires in a group format. They were not paid for their time, but were provided a light snack. All participants were debriefed and provided with a list of community mental health resources, including local low-cost and free services.

Measures

Demographic variables. A brief demographic instrument consisting of 11 items was used to assess the adolescent's date of birth, birth place of adolescent and parents, age at time of immigration to the U.S. (if applicable), parental occupation(s) and education, and their current family composition. Students were asked to indicate their parent(s) highest level of education, utilizing five response categories (elementary, some high school, graduated from high school, some college, graduated from college). A composite measure of socioeconomic status (SES) was created by averaging the *z* scores for participants' self-reports of maternal and paternal education and occupation (alpha = .80). Participants were asked to self-identify their ethnicity. Dummy codes for

ethnic group membership (Latina and Asian) were created for ethnic group comparisons. African American was the reference group. In addition, 5 items were used to determine language spoken in a variety of contexts (e.g. at home and with peers). An index of English language use was constructed from these items (alpha = .83) as a proxy for acculturation. This measure correlated strongly, r = .68, with immigration status; thus, only immigration status was used in further analyses.

Depression. The Beck Depression Inventory (BDI-II) (Beck, Ward, Mendelson, Mock & Erbaugh, 1961; Beck, Steer & Brown, 1996) was used to assess depressive symptoms. The BDI-II is appropriate for adolescents as young as 13 years old (Steer & Beck, 1988) and is easily understood by the average high school student, as it requires a fifth-grade reading level. This instrument is a 21-item self-report inventory used to assess the severity of depressive symptoms. At the request of the local school system, 2 items regarding suicidal thoughts and loss of interest in sex were excluded. The remaining 19 items were administered. The items tap cognitive, behavioral, affective, and somatic symptoms. For each item respondents selected among four responses ranging from 0 to 3. The total BDI-II score is the sum of all items and ranges from 0 to 63. The Beck Depression Inventory has been widely used to detect depression in normal adolescent samples (Barrera & Garrison-Jones, 1992; Gibbs, 1985; Kaplan, Hong, & Weinhold, 1984; Teri, 1982), in psychiatrically hospitalized adolescents (Strober, Green, & Carlson, 1981), and adolescent mothers (Colletta, 1983; Field et al., 1980; Steer, Scholl, & Beck, 1990). Adequate validity has been found for its use with adolescents (Lempers, Clarke-Lempers, & Simon, 1989). Split-half reliabilities in the

.90s and correlations with several clinical ratings of depression have also been reported (Steer et al., 1986). Research with adolescents indicates adequate internal consistency (.80 to .90) and test-retest reliability (Strober et al., 1981; Teri, 1982). Cronbach's alphas for total BDI-II scores of the participants in this study were as follows: .90 for the ethnic groups combined, .91 for Latina students, .90 for African American students and .87 for Asian students.

Researchers also have further examined the psychometric properties through factor analysis of the BDI and the BDI-II. Most recent analyses have confirmed 2 or 3 factors underlying the BDI-II, including Buckley, Parker and Heggie's (2001) analysis of data from 416 males admitted to a chemical dependence treatment program, and Beck, Brown & Steer's (1996) analysis of 500 psychiatric outpatients aged 13-86 years. Whereas both studies identified factors reflecting cognitive, affective and somatic symptoms, the Beck et al., analysis was the most parsimonious, including one factor reflecting cognitive-affective symptoms and a second factor reflecting somatic symptoms. For this study, these two factors will be utilized to examine differences in depressive symptom expression across ethnic groups.

Other symptom expressions. The Youth Self Report (YSR) (Achenbach, 1991; Achenbach & Rescorla, 2001) has well-established reliability and validity and has been utilized to assess adolescents' competencies and problems in both community and clinically referred samples of youth aged 11 through 18 (Achenbach, 1991). The YSR can be completed by youth having 5th grade reading skills. A total of 30 items were administered for these purposes. Cronbach's alphas for scores of participants in this

study were as follows: .93 for Latina females, .91 for African American females, .90 for Asian females and .91 for all ethnic groups combined. Three sub-scales of the Youth Self Report self-report instrument were utilized to assess anxious/depressed, somatic, and withdrawn symptoms. Adolescents rated themselves for how true each item is now or was within the past six months, using a three-point response format. Scales are based on 2,581 high-scoring youth and normed on 1,057 nonreferred children between the ages of 11-18 of diverse ethnic and cultural backgrounds, including African-American, Caucasian, and Latino.

Cultural context. Ethnic identity was assessed using the 14-item Multi-group Ethnic Identity Measure (Phinney, 1992). This instrument has been used with African American, Asian American, and Latino samples. Research with high school students indicates adequate reliability with alphas ranging from .79 to .81 depending on the ethnicity of the sample (Phinney, 1992; Phinney, Ferguson, and Tate, 1997). Reliability coefficients (Cronbach's alphas) for this measure in the present study were as follows: .80 for Latina participants, .77 for African American participants, .92 for Asian participants and .83 for all ethnic groups combined.

The measure includes three aspects of ethnic identity: (1) ethnic identity achievement, based on exploration and commitment (7 items; e.g. "I am not very clear about the role of ethnicity in my life"); (2) sense of belonging to, and attitudes toward, one's ethnic group (5 items; e.g. "I have a strong sense of belonging to my ethnic group"); and (3) ethnic behaviors and customs (2 items; e.g. "I participate in cultural practices of my ethnic group"). Items are rated on a 4 point scale ranging from (1)

strongly disagree to (4) strongly agree. An ethnic identity score is derived by reversing negative items, summing across the 14 items and obtaining a mean. A high score indicates a strong ethnic identity.

Authoritative p*arenting and family stress*. Authoritative parenting and family stress were assessed using 28 items, developed by Carlson, Uppal, & Prosser (2000) for their study of ethnic differences in sources of self-esteem among a sample of Latina, African American and White early adolescent girls. The measure uses a four point likert-type scale assessing how well each item describes a participant's current family. Items assessing key dimensions of the family environment, such as cohesion, conflict and expressiveness were adapted from the Family Environment Scale (Moos & Moos, 1981). Items assessing dimensions of the four parenting styles (authoritative, authoritarian, permissive, and neglectful) were selected from an adaptation of the Baumrind typology to a self-report questionnaire for use with adolescents (Lamborn et al., 1991).

The authors of the instrument conducted a factor analysis of the 28 items, which yielded three theoretically relevant and psychometrically adequate factors. Two factors, identified as Acceptance/Involvement and Monitoring, corresponded to two important dimensions of authoritative parenting proposed by Maccoby and Martin (1983). A third factor, Family Stress also emerged. This three-factor solution was supported across three middle school samples studied by Carlson et al. (2000). Based on their factor analyses, Carlson et al. (2000) constructed three scales using items that loaded greater than .50 on each of the factors.

Reliability was adequate for all three scales: Acceptance/Involvement (8 items, *r* = .84); Monitoring (9 items, *r* = .82) and Family Stress (9 items, *r* = .75). Family Acceptance/Involvement items include statements such as, “My family has time for me.” Parental Monitoring items include, “My parents know where I go after school.” Family stress items include statements such as, “In my family, people fight with one another.” Carlson et al. (2000) combined the two scales of Acceptance/Involvement and Parental Monitoring, which were strongly correlated (*r* = .60), into a single scale of Authoritative Parenting Style. The Authoritative Parenting Style score represents the sum of the Monitoring and Acceptance/Involvement scales such that parents perceived by adolescents to be high on both scales would have higher summed scores indicating a more authoritative style.

In the present study, Cronbach’s alphas were as follows for all ethnic groups combined: Authoritative Parenting Style (19 items, *r* = .86) and Family Stress (9 items, *r* = .65). Reliability was adequate for authoritative parenting for Latina participants (*r* =.80), African American participants (*r* =.91) and Asian participants (*r* =.86). Cronbach’s alphas for the family stress subscale varied across ethnic groups and were as follows: .67 for Latina students, .59 for African American students and .44 for Asian students.

Parent-Child Relationship. The Family Attachment Scale adapted from Arthur, Hawkins, Catalano & Pollard (1998) was used to assess adolescents’ perceptions of the quality of parent-child relationships. This instrument is a 5-item self-report inventory with a 3-point Likert scale format. Participants indicated their responses on a scale from 1 (Never True) to 3 (Always True). Items include perceptions of closeness with

parents/guardians, ease in sharing thoughts or feelings with parents, and perceptions of opportunities and rewards for family involvement and parental interaction. The measure has well-established reliability and validity in research assessing adolescent risk and protective factors, with Cronbach's alpha ranging from .74 to .86 in representative community samples of adolescents (Arthur, et al., 1998). Reliability coefficients for this study were as follows: for Latina participants (alpha = .72), for African American participants (alpha = .74), for Asian participants (alpha = .60) and for all ethnic groups (alpha = .74).

Analysis Plan

Analyses proceeded in three phases. First, overall ethnic group differences in self-reported depressive symptoms and internalizing problems were examined using analysis of variance (ANOVA) with total scores from the Beck Depression Inventory and the Youth Self-Report as the dependent variables. Significant differences were followed by Tukey's HSD post-hoc test to determine the nature and extent of ethnic group differences. In addition, multivariate analysis of variance (MANOVA) was utilized to examine ethnic group differences in two categories of depressive symptoms (cognitive/affective and somatic/vegetative). Significant differences were followed up with Tukey's HSD. Multivariate analysis of variance (MANOVA) also was utilized to examine ethnic group differences in three categories of internalizing problems (anxious/depressed, withdrawn, and somatic) as measured by the Youth Self-Report (YSR). Again, significant differences were followed with Tukey's HSD.

Analysis of variance (ANOVA) followed by Tukey's HSD also was used to examine ethnic group differences in participants' reports of ethnic identity, parent-adolescent relationship quality, and parental monitoring and style. In addition, multivariate analysis of variance (MANOVA) also was utilized to examine ethnic group differences in three family processes (authoritative parenting, family stress and parent-adolescent relationship).

Next, Pearson product-moment correlation coefficients were computed in order to examine the bivariate associations among parenting measures with depressive symptoms. Finally, hierarchical multiple regressions were used to examine the independent contributions of family processes and the moderating effects of ethnic group membership and cultural context to explaining variance in depressive symptoms. The dependent variables in these equations were depressive symptoms and internalizing problems, with separate hierarchical regressions conducted utilizing the BDI-II and YSR. Hierarchical multiple regression examines the degree to which a continuous dependent variable is related to a set of other independent variables. Each independent variable is entered into the equation in a specified order and is assessed in terms of what it adds to the equation (Tabachnick & Fidell, 1996). In the first equation, the variables were entered in the following order: 1) dummy codes for ethnic group membership; 2) family process variables and 3) interactions of ethnic group membership with each of the family process measures. A similar set of regression equations was computed to examine the moderating role of ethnic identity in explaining associations between family process variables and depressive symptoms. For these

equations, the variables were entered in the following order: 1) ethnic identity; 2) family processes and 3) interactions of ethnic identity with each of the family processes.

CHAPTER 4

Results

Preliminary Analyses

Ethnic group differences in SES, as measured by a composite score of parental education and occupation, were tested using Analysis of variance (ANOVA). A main effect of ethnic groups on SES emerged, F (2, 85) = 34.85, p<.001. Post-hoc analyses using Tukey's HSD revealed that Latina students reported the lowest SES (M = -2.19, S.D. = 2.34) followed by Asian students (M = .61, S.D. = 2.64) and African American students (M = 2.45, S.D. = 2.19). Due to these significant differences, SES was entered into step 1 of each regression equation as a control variable.

Analyses of variance (ANOVA) also were conducted to examine ethnic group differences in overall family variables and ethnic identity. Table 2 displays the means and standard deviations for each ethnic group across family variables and ethnic identity. In addition, multivariate analyses of variance (MANOVA) were conducted to examine main effects of ethnic group in three dimensions of family processes (authoritative parenting, relationship quality and family stress). As seen in Table 2, the only significant main effect between ethnic groups that emerged was in Relationship Quality, F (2, 85)=4.31, p<.05. Post-hoc analyses using Tukey's HSD revealed that Asian females reported significantly higher levels of positive parent-adolescent relationship quality when compared to Latina participants.

Ethnic Group Differences in Symptom Expression

Analyses of variance (ANOVA) were conducted to examine ethnic group differences in self-reported depressive symptoms. Table 1 displays the means and standard deviations for each ethnic group on depressive symptoms and internalizing problems. Although there were no significant ethnic group differences in overall depressive symptoms and internalizing problems reported, Latina participants reported the highest rates on both overall depressive symptoms and internalizing problems. When Multivariate analyses of variance (MANOVA) were conducted a main effect of ethnic groups in Cognitive/Affective symptoms emerged, F (2, 85)=3.17, p<.05. Post-hoc analyses using Tukey's HSD revealed that Latinas reported significantly higher levels of

Table 1.
Main-Effect Differences Between Ethnic Groups on Depressive Symptoms and Internalizing Problems

Outcome	Latina[a]	African American[b]	Asian[c]	*F* value
	Mean (SD)	Mean (SD)	Mean (SD)	
Depressive Symptoms - Total (BDI-II)	15.94 (11.05)	11.41 (9.11)	12.57 (8.59)	1.89
Cognitive/Affective Symptoms (BDI-II)	11.40 (8.17)	7.07 (6.54)	8.21 (6.53)	3.17*
Somatic/Vegetative Symptoms (BDI-II)	4.54 (3.66)	4.34 (3.36)	4.36 (2.56)	0.04
Internalizing Problems – Total (YSR)	21.26 (12.25)	15.73 (10.23)	18.81 (9.15)	2.13
Anxious / Depressed (YSR)	11.43 (7.34)	8.28 (6.07)	9.53 (5.49)	1.99
Withdrawn (YSR)	5.83 (3.48)	4.34 (2.70)	4.93 (2.34)	2.08
Somatic Complaints (YSR)	4.98 (3.44)	3.83 (3.46)	5.29 (2.81)	1.32

Note:
a, $n = 43$
b, $n = 29$
c, $n = 14$
* $p<.05$, ** $p <.01$

cognitive/affective depressive symptoms when compared to African American females. No other ethnic group differences in depressive symptoms and internalizing problems reached significance; however, again Latinas reported the highest rates of all categories of depressive symptoms and internalizing problems, except for the somatic sub-scale of the Youth Self Report. It was hypothesized that Latina students would report higher levels of somatic symptoms than African American and Asian students; however, this hypothesis was not confirmed.

Ethnic group differences in symptoms were further examined using the cut score guidelines for the BDI-II (0-13 = minimal depression, 14-19 = mild depression, 20-28 = moderate depression and 29-63 = severe depression), participants were categorized as not clinically depressed (0-19) or (20-63) depressed (Beck, Brown & Steer, 1996). These cut score guidelines were devised for the 21-item BDI-II, whereas for this study the items for suicidality and loss of sexual interest were dropped; therefore, the depression rates found may be an underestimate of prevalence rates.

Ethnic group differences in levels of self-reported depression were tested using chi-square analyses. Results revealed no significant ethnic group differences in the proportion of youth with clinically significant levels of depressive symptoms, $\chi^2(2) = 2.78$; however, a total of 26 of the 86 participants (30%) reported clinically significant (i.e. moderate or severe) levels of depressive symptoms.

Correlational Analyses

The next step was to calculate bivariate correlations among each of the continuous measures to be used in subsequent regression analyses. The

intercorrelations of these measures are presented in Table 3. As expected, all measures of depressive symptoms and internalizing behaviors were significantly and positively correlated (*r*s ranged from .39 to .97). Similarly, intercorrelations among family process variables, SES and ethnic identity were significant. Relationship quality was positively and significantly correlated with authoritative parenting. Conversely, relationship quality and authoritative parenting were negatively associated with family stress; however, only the intercorrelation between authoritative parenting and family stress reached statistical significance. As expected, SES was negatively and significantly correlated with family stress. No other associations between SES and family process variables reached significance. SES was positively and significantly associated with ethnic identity. Ethnic identity also was positively and significantly associated with authoritative parenting and parent-adolescent relationship quality.

Table 2
Main-Effect Differences Between Ethnic Groups on Family Processes and Ethnic Identity

Outcome	Latina[a] Mean (SD)	African American[b] Mean (SD)	Asian[c] Mean (SD)	*F* value
Parental Monitoring and Style – Total (YF)	42.02 (9.08)	39.37 (9.49)	41.00 (9.52)	0.71
Acceptance and Involvement (YF)	11.98 (5.26)	12.52 (5.18)	12.86 (4.54)	0.19
Parental Monitoring (YF)	18.42 (4.94)	16.72 (5.08)	17.14 (4.59)	1.11
Family Stress (YF)	7.96 (4.38)	6.30 (3.31)	7.28 (3.02)	1.60
Authoritative Parenting (YF)	30.40 (8.32)	29.26 (9.41)	30.00 (8.58)	0.15
Relationship Quality (FAFS)	10.67 (2.35)	11.55 (2.23)	12.61 (1.73)	4.31*
Ethnic Identity (MEI)	41.23 (6.32)	43.16 (6.15)	45.07 (8.04)	2.02

Note:
a, $n = 43$
b, $n = 29$
c, $n = 14$
* $p<.05$, ** $p <.01$

Table 3.
Intercorrelations of Depressive Symptoms and Parenting Measures based on Adolescent Reports

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Depressive Symptoms (BDI-II)	----												
2. Vegetative/Somatic Symptoms (BDI-II)	.83**	----											
3. Affective/Cognitive Symptoms (BDI-II)	.97**	.67**	----										
4. Internalizing Problems (YSR)	.77**	.57**	.77**	----									
5. Anx/Depressed (YSR)	.78**	.57**	.79**	.95**	----								
6. Withdrawn (YSR)	.66**	.45**	.69**	.85**	.79**	----							
7. Somatic Symptoms(YSR)	.49**	.39**	.48**	.76**	.58**	.47**	----						
8. Parent-Adolescent Relationship Quality (FAS)	-.26*	-.09	-.31**	-.14	-.12	-.18	-.09	----					
9. Family Processes (YF)	-.27**	-.25*	-.24*	-.12	-.13	-.15	-.02	.55**	----				
10. Family Stress (YF)	.38**	.30**	.38**	.39**	.31**	.37**	.42**	-.20	.22*	----			
11. Parental Monitoring(YF)	-.32**	-.32**	-.29**	-.24*	-.20	-.26*	-.18	.44**	.83**	-.06	----		
12. Parental Acceptance & Involvement (YF)	-.40**	-.31**	-.40**	-.25*	-.23*	-.28**	-.18	.66**	.73**	-.31**	.52**	----	
13. Authoritative Parenting (YF)	-.41**	-.36**	-.39**	-.28**	-.25*	-.30**	-.20	.64**	.90**	-.22*	.87**	.88**	----

Note:
*p <.05, **p <.01

In addition, significant intercorrelations among family process variables, SES and ethnic identity with depressive symptoms and internalizing problems were found. As expected, authoritative parenting was negatively and significantly associated with depressive symptoms, except for the association between authoritative parenting and somatic symptoms, as measured by the YSR, which did not reach significance. Family stress was positively and significantly associated with all measures of depressive symptoms and internalizing problems. As expected, relationship quality was negatively associated with all measures of depressive symptoms and internalizing problems; however, only the relations between relationship quality and overall depressive symptoms, as well as, affective/cognitive symptoms reached significance. SES was negatively associated with all indicators of depressive symptoms and internalizing problems. These negative associations only reached significance for vegetative/somatic, affective/cognitive and overall depressive symptoms, as measured by the BDI-II. As expected, ethnic identity was significantly and negatively associated with all depressive symptoms and internalizing problems, except for somatic symptoms, as measured by the YSR, which did not reach significance.

Predictors of Depressive Symptoms

Table 4 presents the hierarchical multiple regressions that were conducted to examine ethnic group membership, socioeconomic status (SES), and family process measures as predictors of adolescents' self-reported depressive symptoms. Separate regression equations were computed examining overall depressive symptoms, cognitive/affective symptoms, and vegetative/somatic symptoms as the dependent variables. In each equation, dummy codes for ethnic group membership (Latina, Asian)

and SES were entered in the first step. For each regression equation, the variables entered in step 2 consisted of authoritative parenting, family stress and relationship quality. Two-way interaction terms of ethnic group membership and each of the family variables were computed by first centering the continuous variables to a mean of 0 (Aiken & West, 1991). The centered family variables were then multiplied with the dummy codes for ethnic group membership to create interaction terms, which were entered in the third step. The interaction of ethnic group membership and each family process variable were entered into separate regression equations as Step 3.

As shown in Table 4, neither ethnic group membership nor SES explained a significant portion of variance in depressive symptoms. However, family variables entered in step 2 explained a significant proportion of variance (20-27%) in depressive symptoms. As hypothesized, the effect of authoritative parenting was significant, such that participants reported fewer depressive symptoms when their parents utilized an authoritative parenting style. In addition, the effect of family stress was significant, such that participants of all ethnicities reported higher levels of depressive symptoms as levels of family stress increased. The effect of relationship quality reached significance only in the regression equation for vegetative/somatic symptoms. Controlling both authoritative parenting and family stress, adolescents who reported more positive relationships with their parents also reported more depressive symptoms.

Table 4.
Regression Analyses of Depressive Symptoms, as measured by the BDI-II, on Ethnicity, Socioeconomic Status and Measures of Authoritative Parenting, Family Stress and Relationship Quality as Reported by Adolescents

	Depressive Symptoms – Total			Cognitive / Affective			Vegetative / Somatic		
	ß	R^2	ΔR^2	ß	R^2	ΔR^2	ß	R^2	ΔR^2
Step 1		.06	.06		.07	.07		.07	.07
SES	.01			-.05			-.21		
Latina	.25			.25			-.08		
Asian	.01			.05			-.10		
Step 2		.33***	.27***		.34***	.26***		.27***	.20***
Authoritative Parenting (YF)	-.58***			-.44***			-.50***		
Family Stress (YF)	.28**			.28**			.22*		
Relationship Quality (FAFS)	.20			.09			.31*		
Step 3		.34	.01		.34	.00		.28	.01
LatinaXAP	.03			-.01			.09		
AsianXAP	.11			.09			.12		
Step 3		.39	.06		.38	.04		.30	.03
LatinaXFS	.21			.19			.21		
AsianXFS	-.15			-.15			-.11		
Step 3		.34	.01		.34	.00		.27	.00
LatinaXRQ	-.03			.02			.01		
AsianXRQ	-.14			-.01			.02		

Note: Standard regression weights (Betas) at entry into the model are presented. *p <.05, **p <.01, ***p <.001

This unexpected result was interpreted as a suppressor effect because the simple correlation and beta weight showed opposite signs. Suppressor variables can be identified in one of two ways: 1) the absolute value of the simple correlation between the independent variable and dependent variable is substantially smaller than the beta weight for the independent variable, or 2) the simple correlation and beta weight have opposite signs (Cohen & Cohen, 1983).

Table 5 presents the hierarchical multiple regressions that were conducted to examine ethnic group membership, socioeconomic status (SES), and measures of authoritative parenting, family stress and relationship quality as predictors of adolescents' self-reported internalizing problems. Separate regression equations were computed examining overall internalizing problems, anxious/depressed, withdrawn and somatic complaints as the dependent variables. In each equation a dummy code for ethnic group membership and SES were entered in the first step. For each regression equation, the variables entered in step 2 consisted of authoritative parenting, family stress and relationship quality. Two-way interaction terms of ethnic group membership and each of the family variables were entered in separate regression equations as the third step.

Table 5.
Regression Analyses of Internalizing Problems, as Measured by the YSR, on Ethnicity, Socioeconomic Status and Measures of Authoritative Parenting, Family Stress and Relationship Quality as Reported by Adolescents

	Internalizing Problems			Anxious / Depressed			Withdrawn			Somatic Complaints		
	ß	R^2	ΔR^2	ß	R^2	ΔR^2	ß	R^2	ΔR^2	ß	R^2	ΔR^2
Step 1		.06	.06		.05	.05		.05	.05		.05	.05
SES	-.13			-.09			-.07			-.18		
Latina	.14			.16			.19			.04		
Asian	.07			.05			.05			.12		
Step 2		.30***	.24***		.25***	.20***		.26***	.21***		.23***	.18***
Authoritative	-.44***			-.44**			-.40**			-.33*		
FamilyStress	.32**			.27**			.29**			.32**		
Relationship	.23			.23			.17			.16		
Step 3		.30	.00		.26	.01		.28	.02		.24	.01
LatinaXAP	-.09			.01			-.20			-.14		
AsianXAP	.04			.07			-.04			.02		
Step 3		.33	.03		.28	.03		.30	.04		.25	.02
LatinaXFS	.15			.13			.13			.02		
AsianXFS	-.13			-.13			-.04			-.13		
Step 3		.31	.01		.26	.01		.26	.00		.24	.01
LatinaXRQ	-.03			.00			-.03			-.09		
AsianXRQ	-.14			-.14			-.08			-.12		

Note: Standard regression weights (Betas) at entry into the model are presented. *p <.05, **p <.01, ***p <.001

As shown in Table 5, neither ethnic group membership nor SES explained a significant portion of variance in any of the internalizing problems. However, in each equation family variables entered in step 2 explained a significant proportion of variance (18-24%) in internalizing problems. As hypothesized, the effect of authoritative parenting was significant in each equation, such that participants reported fewer internalizing problems when their parents utilized an authoritative parenting style. In addition, the effect of family stress was significant, such that participants of all ethnicities reported higher levels of internalizing problems as levels of family stress increased. The effect of relationship quality was not a significant predictor for any of the internalizing problems variables; however, similar to the suppressor effect found in a previous regression equation relationship quality had a positive beta weight in this equation. No interaction terms were significant for any of the regression equations utilizing overall internalizing problems, anxious depressed, withdrawn and somatic complaints as dependent variables. These results did not support the hypothesis that ethnic group membership would moderate the relation between family process variables and internalizing problems. However, as predicted these results indicate the importance of family processes in the development of adolescent depressive symptoms across ethnic groups.

Next, regression analyses were conducted utilizing SES, ethnic identity, immigration status and family process variables as predictors of depressive symptoms as reported by adolescents. Separate regression equations were conducted utilizing overall depressive symptoms, cognitive/affective symptoms and vegetative/somatic symptoms as dependent variables. As shown in Table 6, SES, ethnic identity and

immigration status were entered in the first step. These variables accounted for a significant proportion of the variance, ranging from 11% to 21%. Specifically, as hypothesized participants reporting a strong ethnic identity reported fewer overall depressive symptoms, cognitive/affective symptoms and vegetative/somatic symptoms. Immigration status was also a significant predictor, such that foreign born participants reported higher levels of overall depressive symptoms and cognitive/affective symptoms, but not vegetative/somatic symptoms when compared to US born participants. In the second step, authoritative parenting, family stress and relationship quality were entered into the equation. This step accounted for a significant proportion of variance across all categories of depressive symptoms, ranging from 18% to 20%. As hypothesized authoritative parenting was a significant predictor of all the categories of depressive symptoms, such that as authoritative parenting strategies increased reported depressive symptoms decreased. Family stress was also a significant predictor across all depressive symptoms categories; however, as family stress increased depressive symptoms also were greater. The effect of relationship quality reached significance only in the regression equation for vegetative/somatic symptoms. Controlling both authoritative parenting and family stress, adolescents who reported more positive relationships with their parents also reported more vegetative/somatic symptoms. Again, this unexpected result was interpreted as a suppressor effect because the simple correlation and beta weight have opposite signs. These results support the hypothesis that a strong ethnic identity can serve as a protective factor for depressive symptoms. In step 3, interaction terms of ethnic identity by each family process variable were entered in separate equations, but none reached significance.

Table 6.
Regression Analyses of Depressive Symptoms, as Measured by the BDI-II, on Ethnic Identity, Immigration, Socioeconomic Status, and Measures of Authoritative Parenting, Family Stress and Relationship Quality as Reported by Adolescents

	Depressive Symptoms – Total			Cognitive/Affective Symptoms			Vegetative/Somatic Symptoms		
	ß	R^2	ΔR^2	ß	R^2	ΔR^2	ß	R^2	ΔR^2
Step 1		.21***	.21***		.23***	.23***		.11*	.11*
SES	-.05			-.01			-.12		
Ethnic Identity (MEI)	-.39***			-.42***			-.24*		
Immigration Status	.23**			.25**			.07		
Step 2		.41***	.20***		.41***	.18***		.29***	.18***
Authoritative Parenting (YF)	-.33**			-.24*			-.44***		
Family Stress (YF)	.33***			.34***			.25**		
Relationship Quality (FAFS)	.11			.01			.31**		
Step 3		.41	.00		.41	.00		.29	.00
EthnicIdentityXAP	.00			.00			.00		
Step 3		.41	.00		.41	.00		.29	.00
EthnicIdentityXFS	-.02			-.01			-.05		
Step 3		.41	.00		.41	.00		.29	.00
EthnicIdentityXRQ	-.01			.00			-.01		

Note: Standard regression weights (Betas) at entry into the model are presented. *p <.05, **p <.01, ***p <.001

Presented in Table 7, are regression analyses of internalizing problems on ethnic identity, immigration, SES and family process variables. First, SES, ethnic identity and immigration status were entered in step 1. This step accounted for a significant proportion of variance (10%) in overall internalizing problems, anxious/depressed and withdrawal but not somatic complaints. As hypothesized, ethnic identity was a significant predictor such that as ethnic identity increased internalizing problems decreased. Immigration status was a significant predictor only for anxious/depressed complaints, such that foreign born participants reported higher levels of this type of internalizing problem. Next, authoritative parenting, family stress and relationship quality were entered in the second step. This step accounted for a significant proportion of the variance, contributing an additional 12-18% of explained variance across the categories of internalizing problems. Specifically, authoritative parenting was a significant predictor of overall internalizing problems only, such that as participants reported higher levels of authoritative parenting they reported fewer overall internalizing problems. Family stress was a significant predictor across all categories of internalizing problems, such that participants who reported high levels of family stress also reported higher levels of all types of internalizing problems. In these equations, relationship quality was not a significant predictor of any of the categories of internalizing problems. In step 3, interaction terms of ethnic identity by family process variables were entered. The only significant interaction term was ethnic identity by family stress, accounting for an additional 5% of explained variance in somatic complaints.

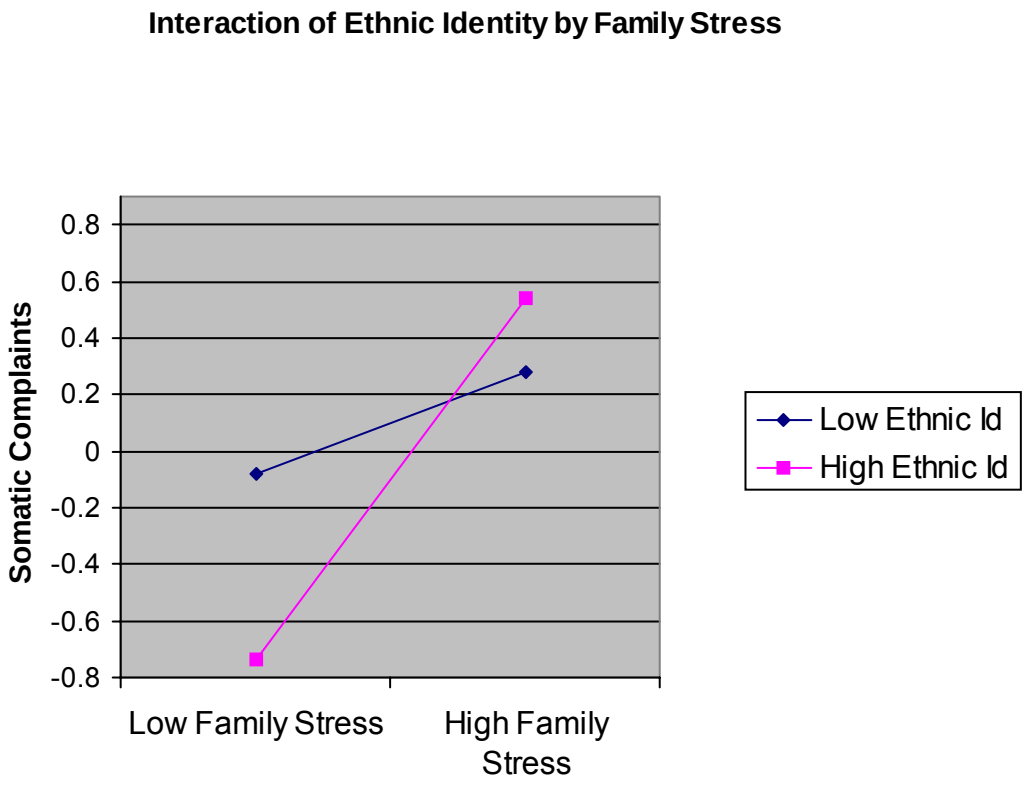
Table 7.
Regression Analyses of Internalizing Problems on Ethnic Identity, Immigration, Socioeconomic Status, and Measures of Authoritative Parenting, Family Stress and Relationship Quality as Reported by Adolescents

	Internalizing Problems – Total (YSR)			Anxious / Depressed (YSR)			Withdrawn (YSR)			Somatic Complaints (YSR)		
	ß	R^2	ΔR^2	ß	R^2	ΔR^2	ß	R^2	ΔR^2	ß	R^2	ΔR^2
Step 1		.10*	.10*		.10*	.10*		.10*	.10*		.03	.03
SES	-.06			-.01			-.05			-.01		
Ethnic Identity (MEI)	-.25*			-.26*			-.28*			-.10		
Immigration Status	.10			.22*			.09			-.01		
Step 2		.28***	.18***		.22**	.12**		.26***	.16***		.21***	.18***
Authoritative Parenting (YF)	-.24*			-.23			-.23			-.12		
Family Stress (YF)	.37***			.29**			.35***			.41***		
Relationship Quality (FAFS)	.16			.15			.10			.16		
Step 3		.28	.00		.22	.00		.27	.01		.26*	.05*
EthnicIdentity X AP	.09			.06			.09					
Step 3		.28	.00		.22	.00		.26	.00	.23*		
Ethnic Identity X FS	.03			-.06			-.03					
Step 3		.28	.00		.22	.00		.26	.00			
Ethnic Identity X RQ	-.02			-.04			.04					

Note: Standard regression weights (Betas) at entry into the model are presented. *p <.05, **p <.01, ***p <.001

As shown in Figure 1, this interaction indicates that participants who reported lower levels of ethnic identity also reported little change in somatic complaints regardless of reported levels of family stress; however, participants who reported higher levels of ethnic identity reported the lowest levels of somatic complaints under low family stress conditions and the highest levels of somatic complaints when family stress was reportedly high.

Figure 1.



CHAPTER 5

Discussion

This study examined the moderating effects of ethnic group membership and immigration status on the relation between depressive symptoms and family processes among Latina, African American and Asian female adolescents. The results extend previous research that has demonstrated the importance of linkages of family and cultural influences to the emergence of depressive symptoms in adolescent girls. Specifically, few studies have utilized multiple measures of family processes. This study examined multiple dimensions of family processes to begin to determine which family process variables serve as protective factors for adolescent depressive symptoms.

Group Differences in Depressive and Internalizing Symptoms

Unexpectedly, there were few ethnic group differences in symptom expression, perhaps indicating that female adolescents experience depressive symptoms in similar ways. In fact, the only significant group difference in depressive symptom expression was found for cognitive/affective symptoms, such that Latina adolescents reported higher levels of cognitive/affective symptoms when compared to African American female participants. This finding suggests that Latinas may experience more changes in affective regulation and cognitive functioning as indicators of depressive symptoms than do African American female adolescents.

Group Differences in Family Processes and Ethnic Identity

Again there were few ethnic group differences found across family process variables and ethnic identity, indicating that family processes may be similar across

ethnic groups. No ethnic group differences were found for ethnic identity, indicating that a sense of ethnic identity was comparable across Latinas, African Americans and Asian Americans in this study. Similarly, no ethnic group differences were found among authoritative parenting style, family stress, and relationship quality perhaps indicating that family processes function to insulate adolescents from depressive symptoms in similar manners across ethnicities. A significant ethnic group difference was found for parent-adolescent relationship quality, indicating that Asian participants perceive a more positive relationship with their parents when compared to Latinas.

Parent-adolescent relationship quality and authoritative parenting correlated strongly in this study; however, it seems that this strong correlation may have driven the suppressor effect found in this study. This finding raises the question, can these two constructs be teased apart or are they really two ways of describing the same family process? After accounting for the effect of authoritative parenting, unexpectedly the measure of parent-adolescent relationship quality utilized in this study seems to be associated with more depression. One explanation may be that participants who are depressed experience their parents as being concerned about them and as trying hard to make them feel better. Another explanation is that relationship quality as measured in this study represents a marker of enmeshment, such that adolescents who are depressed have parents that are overly involved in their adolescents' lives, precluding them from developing a sense of autonomy and mastery. Future studies should include multiple informants, such as adolescents and their parents in order to better assess the relationship quality of adolescents and their parents. Although costly in terms of time

and resources, observations of parent-adolescent interactions would also provide more insight into the relational context of depressed adolescents.

There was only one significant interaction found in this study. This interaction indicated that participants who reported low levels of ethnic identity did not differ much in their reports of somatic complaints regardless of levels of family stress. Participants who reported high levels of ethnic identity and low levels of family stress reported the fewest somatic symptoms. In addition, participants who reported high levels of ethnic identity and high levels of family stress also reported the most somatic complaints. This finding may indicate that female adolescents with a strong ethnic identity are especially sensitive to family stress, which may threaten the cohesiveness of their family and social support networks. Again, it is recommended that future research utilize multiple informants and observational data to further explore the relation between family stress, ethnic identity and female adolescent depressive symptoms. In addition, including measures of both traumatic stress and chronic stress in future studies may help to provide additional information regarding which types of stress have the most detrimental effects to the mental health of families and adolescents.

As the interest in multi-cultural research continues to grow, it is imperative that more measures be tested across ethnic groups. For example, internal consistency measures of family stress in this study were found to vary across ethnic groups. Cronbach's alphas ranged from (.44) for Asian participants to (.67) for Latina participants. These differences in measures of internal consistency across sub-samples may be an indicator that the items do not measure the same construct across ethnic

groups. Perhaps family stress is experienced or expressed differently across ethnic minority groups. For example, families of some cultures may express stress with overt conflict while withdrawal strategies may be more culturally appropriate for other families. By utilizing observational data of adolescents and parents engaged in discussions about stressful topics, researchers may be better able to assess the applicability of this measure across ethnic groups. In addition, focus group discussions about family stress and stress management, which include parents and adolescents of particular ethnic groups may provide information needed to develop culturally sensitive measures of family stress.

Limitations and Implications

Given the small sample size for this study, it would be premature to draw firm conclusions about ethnic group differences from this study alone. Given the extremely small sub-set of Asian participants there was limited power for some comparisons. In addition, these results can only serve to describe phenomenon and processes across broadly defined groups. This study is limited by its sole reliance on self-report measures. Future research can build upon these findings by utilizing multiple-reporters, such as parents and teachers to assess depressive symptoms and family functioning.

Despite these limitations, the present study is one of only a few to examine ethnic group similarities and differences between protective factors and depressive symptoms among a sample of female adolescents. The findings of this study suggest the importance of family processes in the development of depressive symptoms among females. Specifically, family stress was consistently a risk factor for depressive

symptoms across ethnic groups. If replicated, this finding can be utilized to help determine effective treatment for depressed adolescents. For example, clinicians may want to engage the entire family in a depressed adolescent's treatment. In addition, providing stress management strategies, such as diaphragmatic breathing and progressive muscle relaxation to the entire family may decrease the overall levels of family stress. Lower levels of family stress may enable parents to be more available to their adolescents, thereby, reducing the risk of depressive symptoms.

Despite its limitations, this study can provide some much needed insight into the expression of depressive symptoms among culturally-diverse adolescent females. Research has shown that during adolescence girls begin to outnumber boys 2:1 in rates of depression (Lewinsohn, Hops, Roberts, Seely & Andrews, 1993; Nolen-Hoeksema, 1990; Rutter, 1986; Wichstrom, 1999). Across three studies that utilized the BDI to assess depression in nonclinical adolescent populations (Teri, 1982; Reynolds, 1983; Kaplan, Hong & Weinhold, 1984) rates of moderate to severe depression ranged from 8.6% to 36.5%. Given that 30% of the females in this community sample reported moderate to severe depressive symptoms, it is recommended that more mental health outreach programs be offered through school systems. Many of these girls' depressive symptoms are likely going unnoticed, especially if they are functioning moderately well in school. By educating students, parents, teachers, administrators and school counselors about the symptoms of depression, school psychologists and clinicians can facilitate the process of providing more of these young girls, who are suffering in silence, needed referrals to mental health treatment.

References

Aiken, L., & West, S. (1991). *Testing and interpreting interactions in multiple regression*. Newbury Park, CA: Sage.

Allen, L., Denner, J., Yoshikawa, H., Seidman, E., & Aber, J. L. (1996). Acculturation and depression among Latina urban girls. In B. J. R. Leadbeater and N. Way (eds.), *urban Girls: Resisting Stereotypes, Creating Identities,* (pp. 337-350.), NY: New York University Press.

Allen, L., & Mitchell, C. (1998). Racial and ethnic differences in patterns of problematic and adaptive development: An epidemiological review. In V. C. McLoyd and L. Steinberg (eds.), *Studying Minority Adolescents: Conceptual, Methodological, and Theoretical Issues,* (pp. 29-54), Mahwah, NJ: Erlbaum.

American Psychiatric Association (1994). Diagnostic and Statistical Manual of Mental Disorders. 4th ed. Washington, D.C.: American Psychiatric Press.

Angold, A., Costello, E. J., and Worthman, C. M. (1998). Puberty and depression: The roles of age, pubertal status and pubertal timing. *Psychological Medicine, 28*, 51-61.

Armsden, G. C. & Greenberg, M. T. (1987). The Inventory of Parent and Peer Attachment: Relationships to well-being in adolescence. *Journal of Youth and Adolescence, 16* (5), 427-454.

Armsden, G. C., McCauley, E., Greenberg, M. T., Burke, P., & Mitchell, J. (1991). Parent and peer attachment in early adolescence depression. *Journal of Youth and Adolescence, 18*, 683-692.

Baker, F. M. (2001). Diagnosing depression in African Americans. *Community Mental Health Journal, 37*, 31-38.

Baldwin, A. L., Baldwin, C. P., Kasser, T., Zax, M., Sammeroff, A., & Seifer, R. (1989). Contextual risk and resiliency during late adolescence. *Developmental Psychopathology, 5*, 741-761.

Barrera, M., & Garrison-Jones, C.(1992). Family and peer social support as specific correlates of adolescent depressive symptoms. *Journal of Abnormal Child Psychology, 20*, 1-16.

Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. *Genetic Psychology Monographs, 75*, 43-88.

Baumrind, D. (1991). Parenting styles and adolescent development. In J. Brooks-Gunn, R. Letner, & A. C. Petersen (Eds.), *The encyclopedia of adolescence*, (pp. 746-758). New York: Garland.

Beck, A. T., Brown, G., & Steer, R. A. (1996). Beck Depression Inventory II manual. San Antonio, TX: The Psychological Corporation.

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry, 4*, 561-571.

Berry, J. (1990). Psychology of acculturation. In J. J. Berman (Ed.), *Nebraska Symposium on Motivation, 1989: Cross-cultural perspectives* (Vol. 37, pp. 201-234). Lincoln: University of Nebraska Press.

Betancourt, H. and Lopez, S. R. (1993). The study of culture, ethnicity, and race in American psychology. *American Psychologist, 48 (6)*, 629-637.

Birmaher, B., Ryan, N. D., Williamson, D. E., Brent, D. A., Kaufman, J., Dahl, R. E., Perel, J. and Nelson, B. (1996). Childhood and adolescent depression: A review of the past 10 years. *Journal of American Academy of Child and Adolescent Psychiatry, 35*, 1427-1439.

Brown, C., Schulberg, H.C., & Madonia, M. J. (1995). Assessing depression in primary care practice with the Beck Depression Inventory and the Hamilton Rating Scale for Depression. *Psychological Assessment, 7 (1)*, 59-65.

Buckley, T. C., Parker, J.D., & Heggie, J. (2001). A psychometric evaluation of the BDI-II in treatment-seeking substance abusers. *Journal of Substance Abuse Treatment, 20 (3)*, 197-204.

Burke, K. C., Burke, J. D., Reiger, D. A. and Rae, D. S. (1990). Age at onset of selected mental disorders in five community populations. *Archives of General Psychiatry, 47*, 511-518.

Carlson, C., Uppal, S., & Prosser, E. C. (2000). Ethnic differences in processes contributing to the self-esteem of early adolescent girls. *Journal of Early Adolescence, 20* (1), 44-67.

Cauce, A. M., Hiraga, Y., Graves, D., Gonzalez, N., Ryan-Finn, K. and Grove, K. (1996). African-American mothers and their daughters: Closeness, conflict and control. In B. J. R. Leadbeater and N. Way (Eds.), *Urban Girls:*

Resisting Stereotypes, Creating Identities, (pp.100-116), NY: NYU Press.

Choi, H. (2002). Understanding adolescent depression in ethnocultural context. *Advances in Nursing Science, 25* (2), 71-85.

Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences* (2nd Ed.). Hillsdale, NJ: Erlbaum.

Colletta, N. D. (1983). At risk for depression: A study of young mothers. *Journal of Genetic Psychology, 142*, 301-310.

Compas, B. E., Grant, K. E., & Ey, S. (1994). Psychosocial stress and child and adolescent depression: Can we be more specific? In W. M. Reynolds and H. F. Johnston (Eds.)*, Handbook of depression in children and adolescents*, (pp. 509-523), NY: Plenum Press.

Compas, B. E., Orosan, P. G., & Grant, K. E. (1993). Adolescent stress and coping : Implications for psychopathology during adolescence. *Journal of Adolescence, 16*, 331-349.

Conger, R. D., Conger, K. J., Elder, G. H., Lorenz, F. O., Simons, R. L., & Whitbeck, L. B. (1992). A family process model of economic hardship and adjustment of early adolescent boys. *Child Development, 63,* 526-541.

Conger, K. J., Rueter, M.A., & Conger, R. D. (2000). The role of economic pressure in the lives of parents and their adolescents: The family stress model, In L. J. Crockett & R. J. Silbereisen (Eds.), *Negotiating adolescence in times of social change*, (pp. 201-223). Cambridge, England: Cambridge University Press.

Conger, R. D., Wallace, L. E., Sun, Y., Simons, R. L., McLoyd, V. C., & Brody, G. H. (2002). Economic pressure in African American families: A replication and extension of the family stress model. *Developmental Psychology, 38*, 179-193.

Cowan, P. A., Cowan, C. P., Schulz, M. S., & Heming, G. (1994). Prebirth to preschool family factors in children's adaptation to kindergarten. In R. D. Parke & S. G. Kellam (Eds.), *Exploring family relationships with other social contexts. Family research consortium: Advances in family research* (pp.75-114). Hillsdale, NJ: Erlbaum.

Cummings, E. M., & Davies, P. (1994). *Children and marital conflict: The impact of family dispute and resolution.* New York: Guilford.

Dekovic, M. (1999). Risk and protective factors in the development of problem behavior during adolescence. *Journal of Youth and Adolescence, 28*, 667-684.

Dornbusch, S. M., Mont-Reynaud, R., Ritter, P. L., Chen, Z., & Steinberg, L. (1991). Stressful events and their correlates among adolescents of diverse backgrounds. In M. E. Colten & S. Gore (Eds.), *Adolescents stress: Causes and consequences*, (pp. 111-130), NY: Aldine de Gruyter.

Emslie, G. J., Weinberg, W. A., Rush, A. J., Adams, & Rintelmann, J. W. (1990). Depressive symptoms by self report in adolescence: Phase I of the development of a questionnaire for depression by self-report. *Journal of Child Neurology, 3*, 114-121.

Essau, C. A., Petermann, F., & Reynolds, W. M. (1999). Classification of depressive disorders. In C. A. Essau & F. Peterman (Eds.), *Depressive disorders in children and adolescents: Epidemiology, risk factors and treatment*, (pp. 3-25), Northvale, NJ: Jason Aronson.

Fauber, R., Forehand, R., Thomas, A. M., & Wierson, M. (1990). A mediational model of the impact of marital conflict on adolescent adjustment in intact and divorced families: The role of disrupted parenting. *Child Development, 61*, 1112-1123.

Field, T. M., Widmayer, S. M., Stringer, S., & Iganoff, E. (1980). Teenage, lower class, black mothers and their preterm infants: An intervention and developmental follow-up. *Child Development, 51*, 426-436.

Field, T., Diego, M., & Sanders, C. (2001). Adolescent depression and risk factors. *Adolescence, 36* (143), 491-498.

Fincham, F. D. (1998). Child development and marital relations. *Child Development, 69*, 543-574.

Finkelstein, J. A., Donenberg, G. R. and Martinovich, Z. (2001). Maternal control and adolescent depression: Ethnic differences among clinically referred girls. *Journal of Youth and Adolescence, 30 (2)*, 155-171.

Fleming, J. E., & Offord, D. R. (1990). Epidemiology of childhood depressive disorders: A critical review. *Journal of the American Academy of Child and Adolescent Psychiatry, 29*, 571-580.

Fombonne, E. (1998). Increased rates of psychological disorders in youth. *European Archives of Psychiatry and Clinical Neuroscience, 248*, 14-21.

Frick, P. J. (1994). Family dysfunction and the disruptive behavior disorders: A review of recent empirical findings. In T. H. Ollendick & R. J. Prinz (Eds.), *Advances in clinical child psychology, 16*, pp. 203-226, New York: Plenum Press.

Freud, S. (1953). *A general introduction to psychoanalysis*. Garden City, NY: Doubleday.

Garber, J., Little, S., Hilsman, R., & Weaver, K. R. (1998). Family predictors of suicidal symptoms in young adolescents. *Journal of Adolescence, 21*, 445-457.

Gaw, A. C. (Ed.), (1993). *Culture, ethnicity, and mental illness*. Washington, DC: American Psychiatric Press.

Gibbs, J. T. (1985). City girls: Psychological adjustment of urban black adolescent females. Sage 2: 28-36.

Gilligan, C., Lyons, N., & Hanmer, T. (Eds.), (1990). *Making connections: The relational worlds of adolescent girls at Emma Willard School*. Cambridge, MA: Harvard University Press.

Goldberger, N. R., & Veroff, J. B. (Eds.), (1995). *Culture and psychology reader*. New York: New York University Press.

Gore, S., Aseltine, R. H., Jr., & Colten, M. E. (1993). Gender, social-relational involvement, and depression. *Journal of Research on Adolescents, 3*, 101-125.

Gotlib, I. H., Lewinsohn, P. M., & Seeley, J. R. (1995). Symptoms versus a diagnosis of depression: Differences in psychosocial functioning. *Journal of Consulting and Clinical Psychology, 63*, 90-100.

Graham, S. (1992). Most of the subjects were White and middle class: Trends in published research on African Americans in selected APA journals, 1970-1989. *American Psychologist, 47,* 629-639.

Harris, T. L., & Molock, S. D. (2000). Cultural orientation, family cohesion, and family support in suicide ideation and depression among African American college students. *Suicide and Life-Threatening Behavior, 30*, 341-353.

Harvard Mental Health Letter (2002, February). *Depression in Children – Part 1*. Boston, MA: Harvard Medical School Health.

Hofstede, G. (1980). Culture's consequences. Beverly Hills, CA: Sage Publications.

Johnson-Powell, G., Yamamoto, J., Wyatt, G. E., & Arroyo, W. (Eds.), (1997). *Transcultural child development: Psychological assessment and treatment.* New York: John Wiley & Sons.

Juang, L. P., & Silbereisen, R. K. (1999). Supportive parenting and adolescent adjustment across time in former East and West Germany. *Journal of Adolescence, 22*, 719-736.

Kaplan, S. L., Hong, G. K., & Weinhold, C. (1984). Epidemiology of depressive symptomology in adolescents. *Journal of the American Academy of Child Psychiatry, 23*, 91-98.

Kessler, R. C., McGonagle, K. A., Swartz, M. S., Blazer, D. G. and Nelson, C. B. (1993). Sex and depression in the National Comorbidity Survey: I. Lifetime prevalence, chronicity and recurrence. *Journal of Affective Disorders, 29*, 85-96.

Kuperminc, G. P., Blatt, S. J., Shahar, G., Henrich, C. and Leadbeater, B. J. (2004). Cultural equivalence and cultural variance in longitudinal associations of young adolescent self-definition and interpersonal relatedness to psychological and school adjustment. *Journal of Youth and Adolescence, 33*(1), 13-30.

Lamborn, S. D., Mounts, N. S., Steinberg, L., & Dornbusch, S. M. (1991). Patterns of competence and adjustment among adolescents from authoritative, indulgent, and neglectful families. *Child Development, 62*, 1049-1065.

Leadbeater, B. J., Kuperminc, G. P., Blatt, S. J., & Hertzog, C. (1999). A multivariate model of gender differences in adolescents' internalizing and externalizing problems. *Developmental Psychology, 35* (5), 1268-1282.

Leadbeater, B. J., Blatt, S. J., & Quinlan, D. M. (1995). Gender-linked vulnerabilities to depressive symptoms, stress, and problem behaviors in adolescents. *Journal of Research on Adolescence, 5*, 1-29.

Leadbeater, B. & Linares, O. (1992). Depressive symptoms in black and Puerto Rican adolescent mothers in the first 3 years post-partum. *Development and Psychopathology, 4*, 451-468.

Lee, E. (Ed.), (1997). *Working with Asian Americans: A guide for clinicians*. New York: Guilford.

Lempers, J., Clarke-Lempers, D., & Simons, R. L. (1989). Economic hardship, parenting, and distress in adolescence. *Child Development, 60*, 25-39.

Lewinsohn, P. M., Hops, H., Roberts, R. E., Seeley, J. R. and Andrews, J. A. (1993). Adolescent psychopathology: I. prevalence and incidence of depression and other DSM-III-R disorders in high school students. *Journal of Abnormal Psychology, 102*, 133-144.

Lewinsohn, P. M., Rohde, P. and Seeley, J. R. (1998). Major depressive disorder in older adolescents: Prevalence, risk factors, and clinical implications. *Clinical Psychology Review, 18*, 765-794.

Liebkind, K. (1992). Ethnic identity: challenging the boundaries of social psychology. In G. Breakwell (Ed.), *Social psychology of identity and the self-concept* (pp. 147-185). London: Academic.

Loukas, A. & Prelow, H. M. (2004). Externalizing and internalizing problems in low-income Latino early adolescents: Risk, resource and protective factors. *Journal of Early Adolescence, 24*(3), 250-273.

Maccoby, E. & Martin, J. (1983). Socialization in the context of family: Parent-child interaction. In P. H. Mussen (Series Ed.) & E. M. Hetherington (Vol. Ed.), *Handbook of child psychology: Vol. 4 Socialization, personality, and social development* (4th ed., pp. 1-101). New York: John Wiley.

Magnussen, M. G. (1991). Characteristics of depressed and nondepressed children and their parents. *Child Psychiatry and Human Development, 21*, 185-191.

Malgady, R. G., Rogler, L. H., & Constantino, G. (1990). Culturally sensitive psychotherapy for Puerto Rican children and adolescents: A program of treatment outcome research. *Journal of Consulting and Clinical Psychology, 58*(6), 704-712.

Marcia, J.E., Waterman, A.S., Matteson, D.R., Archer, S.L., & Orlofsky, J.L. (1993). *Ego identity: A handbook for psychosocial research.* New York: Springer-Verlag.

Marcus, R. F., & Betzer, P. D. S. (1996). Attachment and antisocial behavior in early adolescence. *Journal of Early Adolescence, 16*(2), 29-248.

Margolin, G., Christensen, A., & John, R. S. (1996). The continuance and spillover of everyday tensions in distressed and nondistressed families. *Journal of Family Psychology, 10*, 304-321.

Marsella, A., Kinzie, D., & Gordon, P. (1973). Ethnic variations in the expression of depression. *Journal of Cross-Cultural Psychology, 4*, 435-458.

McGrath, E., Keita, G. P., Strickland, B. R., and Russo, N. F. (1990). *Women and depression: Risk factors and treatment issues. Final report of the American Psychological Association's National Task Force on Women and Depression*. Washington, D. C.: American Psychological Association.

McLeod, J. D., & Shananhan, M. J. (1996). Trajectories of poverty and children's mental health. *Journal of Health and Social Behavior, 37*, 207-220.

Moos, R. H., & Moos, B. S. (1981). *Manual for the Family Environment Scale*. Palo Alto, CA: consulting Psychologists Press.

Nettles, S.M., & Pleck, J.H. (1994). Risk, resilience and development: The multiple ecologies of black adolescents in the United States. In R.J. Haggerty, L.R. Sherrod, N. Garmezy & M. Rutter (Eds.), Stress, risk and resilience in children and adolescents (pp. 147-181). Cambridge: Cambridge University Press.

Nolen-Hoeksema, S. (1990). Sex differences in depression. Stanford, CA: Stanford University Press.

Patterson, G. R., & Stouthamer-Loeber, M. (1984). The correlation of family management practices and delinquency. *Child Development, 55*, 1299-1307.

Pavlidis, K., McCauley, E. (2001). Autonomy and relatedness in family interactions with depressed adolescents. *Journal of Abnormal Child Psychology, 29(1)*, 11-21.

Petersen, A. C., Compas, B. E., Brooks-Gunn, J., Stemmler, M., Ey, S., & Grant, K. E. (1993). Depression in adolescence. *American Psychologist, 46*, 585-597.

Phinney, J. (1990). Ethnic identity in adolescents and adults: A review of research. *Psychological Bulletin, 108*, 499-514.

Phinney, J. (1992). The Multigroup Ethnic Identity Measure: A new scale for use with diverse groups. *Journal of Adolescent Research, 7*, 156-176.

Phinney, J. S., Ferguson, D. L., & Tate, J. D. (1997). Intergroup attitudes among ethnic minority adolescents: A causal model. *Child Development, 68*, 955-969.

Phinney, J. S., Horenczyk, G., Liebkind, K. and Vedder, P. (2001). Ethnic identity, immigration, and well-being: An interactional perspective. *Journal of Social Issues, 57* (3), 493-510.

Radziszewska, B., Richardson, J. L., Dent, C.W., & Flay, B. R. (1996). Parenting style and adolescent depressive symptoms, smoking, and academic achievement: Ethnic, gender, and SES differences. *Journal of Behavioral Medicine, 19*(3), 289-305.

Reynolds, W. M. (1983). Depression in adolescents: Measurement, epidemiology, and correlates. Paper presented at the annual meeting of the National Association of School Psychologists, Detroit.

Rhee, H. (2000). *Somatic symptoms in adolescents: Searching for risk factors*. Presented at Annual Conference of the Southern Nursing Research Society: February 1, 2001: Baltimore, MD.

Rickel, A. U., Williams, D. L., and Loigman, G. A. (1988). Predictors of maternal child-rearing practices: Implications for intervention. *Journal of Community Psychology, 16*, 32-40.

Roberts, R. E., Roberts, C. R., & Chen, Y. R. (1997). Ethnocultural differences in prevalence of adolescent depression. *American Journal of Community Psychology, 25*, 95-110.

Roberts, R.E., & Sobhan, M. (1992). Symptoms of depression in adolescence: A comparison of Anglo, African and Hispanic Americans. *Journal of Youth and Adolescence, 21*, 639-651.

Rutter, M. (1986). The developmental psychopathology of depression: Issue and perspectives. In M. Rutter, C.W. Izard and P.B. Read (eds.), *Depression in Young People,* New York: Guilford, pp.3-32.

Salguero, C., & McCusker, W. R. (1996). Symptom expression in inner-city Latinas: Psychopathology or help seeking? In B. J. R. Leadbeater and N. Way (Eds.), *Urban Girls: Resisting Stereotypes, Creating Identities*, (pp. 328-336), NY: NYU Press.

Shweder, R. (1990). Cultural psychology – What is it? In J. Stigler, R. Shweder

and G. Herdt (Eds.), *Cultural Psychology: Essays on Comparative Human Development* (pp. 1-43). Cambridge, UK: Cambridge University.

Siegel, J. M., Aneshensel, C. S., Taub, B., Cantwell, D. P., & Driscoll, A. K. (2001). Adolescent depressed mood in a multi-ethnic sample. *Prevention Research, 8*(4), 4-6.

Silver, L. B. (1988). The scope of the problem in children and adolescence. In J. G. Looney (Ed.), Chronic mental illness in children and adolescents (pp. 39-51). Washington, DC: American Psychiatric Press.

Simmons, R. G., & Blythe, D. A. (1987). *Moving into adolescence: The impact of pubertal change and school context*. New York: Aldine de Gruyter.

Steer, R. A., Beck, A. T., & Garrison, B. (1986). Applications of the BDI. In N. Satorius & T.A. Ban (Eds.), *Assessment of depression* (pp.121-142). Geneva, Switzerland: World Health Organization.

Steer, R. A., & Beck, A. T. (1988). Use of the BDI, Hopelessness Scale, Scale for Suicide Ideation, and Suicidal Intent Scale with adolescents. In A. R. Stiffman & R. A. Feldman (Eds.), *Advances in adolescent mental health* (pp. 219-231). Greenwich, CT: JAI Press.

Steer, R. A., Scholl, T. O., & Beck, A. T. (1990). Revised Beck Depression Inventory scores of inner-city adolescents: Pre and postpartum. *Psychological Reports, 66*, 315-320.

Steinberg, L., Lamborn, S. D., Darling, N., Mounts, N. S., & Dornbusch, S. M. (1994). Over-time changes in adjustment and competence among adolescents from authoritative, authoritarian, indulgent and neglectful families. *Child Development, 65*, 754-770.

Stiffman, A. R., Cheuh, H. J., & Earls, F. (1992). Predictive modeling of change in depressive disorder and counts of depressive symptoms in urban youths.

Strober, M., Green, J., & Carlson, G. (1981). Utility of the Beck Depression Inventory with psychiatrically hospitalized adolescents. *Journal of Consulting and Clinical Psychology, 49*, 482-483.

Tabachnick, B., & Fidell, L. (1996). Using multivariate statistics (3rd ed.). New York: Harper Collins.

Teri, L. (1982). Depression in adolescence: Its relationship to assertion and various aspects of self-image. *Journal of Clinical Child Psychology, 11*, 101-106.

United States Census Bureau (2000). *Profile of general demographic characteristics*. http://factfinder.census.gov.

Weiss, L. H., & Schwartz, J. C. (1996). The relationship between parenting types and older adolescents' personality, academic achievement, adjustment and substance use. *Child Development, 67*, 2101-2114.

Wichstrom, L. (1999). The emergence of gender difference in depressed mood during adolescence: The roles of intensified gender socialization. *Developmental Psychology, 35*, 232-245.

Windle, M. (1992). A longitudinal study of stress buffering for adolescent problem behaviors. *Developmental Psychology, 28*(3), 522-530.

Zahn-Waxler, C. (1993). Warriors and worriers: Gender and psychopathology. *Development and Psychopathology, 5*, 79-90.

APPENDICES

APPENDIX A

Coefficient Alphas Calculated Separately by Ethnic Group

Measure	Latina[a]	African American[b]	Asian[c]	All Ethnic Groups[d]
Depressive Symptoms - Total (BDI-II)	.91	.90	.87	.90
Internalizing Problems – Total (YSR)	.93	.91	.90	.91
Ethnic Identity (MEI)	.80	.77	.92	.83
Authoritative Parenting (YF)	.90	.91	.86	.86
Family Stress (YF)	.67	.59	.44	.65
Parent-Adolescent Relationship Quality (FAFS)	.72	.74	.60	.74

Note:
a, $n = 43$
b, $n = 29$
c, $n = 14$
d, $n = 93$

APPENDIX B

Demographics

1. What is your date of birth? Month_____ Year_____

2. Were you born in the United States? Yes_____ No_____

   2.a. If you were not born in the United States, where were you born?
   State_____ __ Country_____

   2.b. If you were not born in the United States, how old were you when you moved to the United States?
   a. Younger than 5 years old
   b. 5-11 years old
   c. 12 years or older

3. Where was your **mother** born?
   State_____ __ Country_____

4. Where was your **father** born?
   State_____ __ Country_____

5. How many of your grandparents were born in the U.S.? 0 1 2 3 4

These next questions are about what is going on now.

6. Do you have any illness, disability or handicap? Please check one: _____no
   _____yes If yes, please describe: _____

7. Who stays in your house now? (Circle all that apply)

   a. Mother
   b. Father
   c. Stepmother
   d. Stepfather
   e. Brother(s) How many? _____
   f. Sister(s) How many? _____
   g. Brother-in-law
   h. Sister-in-law
   i. Other Relative
   j. Friend
   k. Alone
   l. Other Please indicate their relation to you _____

8. What type of work does your **father** (or the man of the house) do? _____

9. What is the highest level of education that your **father** (or the man of the house) completed?

   a. Elementary school
   b. Some high school
   c. Graduated from high school
   d. Some college
   e. Graduated from college

10. What type of work does your **mother** (or woman of the house) do? _____

11. What is the highest level of education that your **mother** (or the woman of the house) completed?

   a. Elementary school
   b. Some high school
   c. Graduated from high school
   d. Some college
   e. Graduated from college

These next questions are about the languages that you know and when you use them.

12. How many languages do you speak? _____
   12.a. Please list the languages that you speak: (1)_____, (2)_____, (3)_____

For the next few questions, please use the numbers from question 12.a.

13. In general in what language(s) do you read?
   (1) only
   (2) only
   (3) only
   both (1) and (2)
   both (2) and (3)
   both (1) and (3)

14. In general in what language(s) do you do math?
   (1) only
   (2) only
   (3) only
   both (1) and (2)
   both (2) and (3)
   both (1) and (3)

15. What language(s) do you usually speak at home?
   (1) only
   (2) only
   (3) only
   both (1) and (2)
   both (2) and (3)
   both (1) and (3)

16. What language(s) do you usually speak with your friends?
(1) only
(2) only
(3) only
both (1) and (2)
both (2) and (3)
both (1) and (3)

MEI	1	2	3	4
	Strongly Disagree	Some-what Disagree	Some-what Agree	Strongly Agree
1. I have spent time trying to find out more about my own ethnic group, such as its history, traditions, and customs.	1	2	3	4
2. I am active in organizations or social groups that include mostly members of my own ethnic group.	1	2	3	4
3. I have a clear sense of my ethnic background and what it means for me.	1	2	3	4
4. I like meeting and getting to know people from ethnic groups other than my own.	1	2	3	4
5. I think a lot about how my life will be affected by the ethnic group I belong to.	1	2	3	4
6. I am happy that I am a member of the group I belong to.	1	2	3	4
7. I sometimes feel it would be better if different ethnic groups didn't try to mix together.	1	2	3	4
8. I am not very clear about the role of my ethnicity in my life.	1	2	3	4
9. I often spend time with people from ethnic groups other than my own.	1	2	3	4
10. I really have not spent much time trying to learn more about the culture and history of my ethnic group.	1	2	3	4
11. I have a strong sense of belonging to my own ethnic group.	1	2	3	4
12. I understand pretty well what my ethnic group membership means to me, in terms of how to relate to my own group and other groups.	1	2	3	4
13. In order to learn more about my ethnic background, I have often talked to other people about my culture.	1	2	3	4
14. I have a lot of pride in my ethnic group and its accomplishments.	1	2	3	4
15. I don't try to become friends with people from other ethnic groups.	1	2	3	4
16. I participate in cultural practices of my own group, such as special foods, music, or customs.	1	2	3	4
17. I am involved in activities with people from other ethnic groups.	1	2	3	4
18. I feel a strong attachment towards my own ethnic group.	1	2	3	4
19. I enjoy being around people from ethnic groups other than my own.	1	2	3	4
20. I feel good about my cultural or ethnic background.	1	2	3	4

Family Attachment and Family Bonding Scale
Adapted from Arthur, Hawkins, Catalano & Pollard, (1998)

Instructions: Please read each statement and circle the number that best describes your relationship with your parents/guardians. Please circle the **3** if the item is **always true** of you. Circle the **2** if the item is **sometimes true** of you. If the item is **never true** of you, circle the **1**.

		Never True	**Sometimes True**	**Always True**
1.	I feel close to my parents/guardians.	1	2	3
2.	I share my thoughts and feelings with my parents/guardians.	1	2	3
3.	My parents/guardians notice when I am doing a good job and let me know.	1	2	3
4.	My parents/guardians tell me they're proud of me for things I've done.	1	2	3
5.	I enjoy spending time with my parents/guardians.	1	2	3

YOUR FAMILY

These questions are about you and your family. Remember that your answers are confidential. Please read each statement below and decide how well the statement describes the family you live with now. (Circle one answer for each statement)

	Never	Sometimes	Often	Always
1. We get along with each other in my family.	0	1	2	3
2. My family does activities together (go to the park or see movies).	0	1	2	3
3. There is strict punishment for breaking rules in my family.	0	1	2	3
4. My family has time for me.	0	1	2	3
5. I wish I had a different family.	0	1	2	3
6. In my family people fight with each other.	0	1	2	3
7. There is a feeling of togetherness in my family.	0	1	2	3
8. My family talks about problems and solutions together.	0	1	2	3
9. I like everything about my family.	0	1	2	3
10. In my family someone is able to help me with my schoolwork.	0	1	2	3
11. There is no use arguing with my parents, what they say goes.	0	1	2	3
12. In my family everyone has their own problems, so I don't bother them with mine.	0	1	2	3
13. In my family people are too sick to do things.	0	1	2	3
14. My family has a lot of problems.	0	1	2	3
15. In my family people hit each other when angry.	0	1	2	3
16. In my family people really help and support one another.	0	1	2	3
17. In my family I have a say in decisions that concern me.	0	1	2	3
18. I am expected to do my share of work around the house.	0	1	2	3
19. My family has very little to eat.	0	1	2	3
20. My family lives with another family.	0	1	2	3
21. My family is never at home and I am left by myself.	0	1	2	3
22. My parents know who my friends are.	0	1	2	3
23. My parents know how I spend my money.	0	1	2	3
24. My parents know where I go after school.	0	1	2	3
25. My parents know where I go at night.	0	1	2	3
26. My parents know what I do with my free time.	0	1	2	3
27. My parents know whether or not I do my homework.	0	1	2	3
28. My parents review my report card.	0	1	2	3

Youth Self-Report

Below is a list of items that describe teenagers. For each item that describes you **now or within the past 6 months**, please circle the **2** if the item is **very true or often true** of you. Circle the **1** if the item is **somewhat or sometimes true** of you. If the item is **not true** of you, circle the **0.**

0 = Not True 1 = Somewhat or Sometimes true 2 = Very True or Often True

---

0 1 2 1. I feel lonely.
0 1 2 2. I cry a lot.
0 1 2 3. I am afraid I might think or do something bad.
0 1 2 4. I feel that I have to be perfect.
0 1 2 5. I feel that no one loves me.
0 1 2 6. I feel that others are out to get me.
0 1 2 7. I feel worthless or inferior.
0 1 2 8. I would rather be alone than with others.
0 1 2 9. I am nervous or tense.
0 1 2 10. I am too fearful or anxious.
0 1 2 11. I feel dizzy or lightheaded.
0 1 2 12. I feel too guilty.
0 1 2 13. I feel overtired without good reason.
14. Physical problems **without known medical cause:**
_____

_____
0 1 2 a. Aches or pains (**not** stomach or headaches)
0 1 2 b. Headaches
0 1 2 c. Nausea, feel sick
0 1 2 d. Problems with eyes (**not** if corrected by glasses)
(describe): _____
0 1 2 e. Rashes or skin problems
0 1 2 f. Stomachaches
0 1 2 g. Vomiting, throwing up
0 1 2 h. Other (describe): _____
0 1 2 15. I refuse to talk.
0 1 2 16. I am secretive or keep things to myself.
0 1 2 17. I am self-conscious or easily embarrassed.
0 1 2 18. I am too shy or timid.
0 1 2 19. I am suspicious.
0 1 2 20. I don’t have much energy.
0 1 2 21. I am unhappy, sad or depressed.
0 1 2 22. I keep from getting involved with others.
0 1 2 23. I worry a lot.