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Objective: This study examined associations between family and school factors, attributional style and depressive symptoms in Latino adolescents. Familism and school social support were examined as moderators of the associations between parent-adolescent conflict, academic performance, and peer discrimination with attributional style. The association between context-specific attributional style (attributions in interpersonal vs. achievement domains) and depressive symptoms were also examined.

Method: Self-reported ratings of parent-adolescent conflict, familism, academic performance, peer discrimination, school social support, attributional style and depressive symptoms were obtained from a sample of 170 middle school and high school Latino students. **Results:** Parent-adolescent conflict and peer discrimination significantly predicted maladaptive attributional style (overall), interpersonal attributional style, and achievement attributional style. Familism and school social support were not found to moderate these associations. Maladaptive interpersonal attributional style significantly predicted greater depressive symptoms. **Conclusions:** Results suggest parent-adolescent conflict and peer discrimination may significantly influence the development of maladaptive attributional styles among Latino youth. Discussion surrounds interpretation of these effects within the context of the extant literature on the etiology and treatment of depressive symptoms in Latino youth.

FAMILIAL, ACADEMIC, AND INTERPERSONAL PREDICTORS OF
ATTRIBUTIONAL STYLE IN LATINO YOUTH

by

Niloofar Fallah

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Approved by

Kari M. Eddington
Committee Co-Chair

Gabriela L. Stein
Committee Co-Chair

APPROVAL PAGE

This dissertation written by Niloofar Fallah has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

Committee Co-Chair	<u>Kari M. Eddington</u>
Committee Co-Chair	<u>Gabriela L. Stein</u>
Committee Members	<u>Rosemery Nelson-Gray</u>
	<u>Thanujeni Pathman</u>

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CHAPTER I

INTRODUCTION

Depression is among the most common psychological disorders and the leading cause of disability worldwide (Moussavi, et al., 2007). Prevalence rates of depression among children and adolescents are rising and the average age of onset is decreasing (Merikangas et al., 2010). Lifetime prevalence rates of Major Depressive Disorder for adolescents between the ages of 15 and 18 are estimated to be approximately 28% (Merikangas et al., 2010). Studies suggest even subsyndromal depressive symptoms may be indicative of significant distress and impaired functioning (Brent, Birmaher, Kolko, Baugher, & Bridge, 2001; Kessler, Avenevoli, & Merikangas, 2001; Krackow & Rudolph, 2008). Moreover, early-onset depression has been shown to be predictive of a more serious illness trajectory (more severe, chronic depression), worse psychosocial outcomes, and greater impairment in multiple domains of functioning (Bertha & Balazs, 2013; Dunn & Goodyer, 2006; Hammen, Brennan, Keenan-Miller, & Herr, 2008; Thompson, 2008).

Adolescence is a peak period of risk and vulnerability for psychopathology (Steinberg & Morris, 2001)—often attributed to rapidly shifting environmental context and simultaneous changes in key neurobiological circuitries. Over the course of

adolescence, brain maturation occurs slowly in emotional processing, cognitive control, and decision making domains, which may increase adolescents' risk for depressive symptoms compared to preadolescent and adult samples (Han et al., 2012). For example, while incidence of depression in adolescents is estimated at 11.2%, these rates are 1.5% and 6.7% in child and adult samples respectively (Costello et al., 1996; Merikangas et al., 2010; Kessler et al., 2005).

Cognitive theories of depression are posited as one way to understand the developmental etiology and maintenance of depression. Among these, the hopelessness theory (Abramson, Metalsky, & Alloy, 1989) may be particularly relevant in adolescence. Specifically, the hopelessness theory of depression posits that individuals' attributional style, or the ways in which individuals attend to, interpret, and remember negative life events, contributes to the likelihood that they will develop depressive symptoms. Several studies document strong associations between one's attributional style and depressive symptoms (for review see: Jacobs, Reinecke, Gollan, & Kane, 2008). Additional work implicates risk and protective factors in the development of maladaptive attributional styles in general populations; however, because the developmental processes that contribute to psychopathology may be culturally and contextually bound, it is important to reexamine the hopelessness model within ethnic minority samples. Almost no previous work examines contributing factors to maladaptive attributional style in Latino youth. As a result, this study aims to examine the contextual and cultural factors that contribute to the development of maladaptive attributional style in Latino adolescents.

Purpose of Current Paper

The overall objectives of the current paper are to: (1) review the relevant research surrounding depression in Latino youth, cognitive theories of depression and attributional style, (2) identify risk and protective factors that may lead to the development of adaptive or maladaptive attributional styles, and (3) present a study that (a) examines how factors salient to Latino youth such as family (parent-adolescent criticism and conflict, familism) and school (peer discrimination, social support, and academic performance) variables function to predict attributional style, and (b) investigate whether attributional style across two separate contexts (interpersonal vs. achievement) differentially predict depressive symptoms. To introduce this study, I review the literature on depression in Latino youth and summarize previous research on the link between the constructs.

Depression in Latino Youth

Latino youth are found to experience higher rates of depression when compared to their White or Black counterparts (McLaughlin, Hilt, & Nolen-Hoeksema, 2007; Twenge & Nolen-Hoeksema, 2002). As a result of these symptoms, Latino youth also consistently report the highest prevalence of suicidal ideation, suicide attempts, and sad or hopeless feelings (Eaton et al, 2012) among adolescents. Reasons for elevated depression in Latino teens are still somewhat unclear. Although certain demographic stressors such as low socioeconomic status and poor parental educational level may be potential contributors to increased depressed mood, repeated findings suggest that they do not fully account for ethnic differences (Tracy, Zimmerman, Galea, McCauley & Stoep, 2008; Roberts, Roberts, & Chen, 1997; Roosa et al., 2010). Thus, additional unidentified factors likely

account for elevated rates of depression among Latino youth; a close look at cognitive models of depression may offer clues to this currently unexplained discrepancy.

Cognitive Vulnerability Models of Depression

Cognitive vulnerability models suggest that negative cognitive self-schemas are activated during stressful situations (Beck, 1967). These negative self-schemas are thought to characterize individuals who are vulnerable to depression and initiate the processes linked to the onset, relapse and recurrence of depression. The vulnerability-stress paradigm, which describes the interaction between environmental stressors and cognitive factors increasing risk for depression, is central to most cognitive vulnerability theories (for review see: Lakdawalla, Hankin, & Mermelstein, 2007).

Beck asserts that there are three main dysfunctional belief schemas that characterize depressed individuals' cognitions: negative thoughts about (1) the self (*I am defective or inadequate*), (2) the world (*All of my experiences result in defeats or failures*), and (3) the future (*the future is hopeless*) (Beck, 1967; 1987). Beck's cognitive theory of depression has been widely studied in adult populations, with the majority of findings supporting the central hypothesis that dysfunctional attitudes interact with negative life events to predict the onset of depression (e.g., Brown, Hammen, Craske, & Wixens, 1995; Hankin, Abramson, Miller, & Haeffel, 2004; Joiner, Metalsky, Lew, & Klocek, 1999). There is limited research examining the role of dysfunctional schemas in depression in younger populations, therefore no conclusive remarks are provided regarding its application to younger populations (Lakdawall et al., 2007).

Nolen-Hoeksema's Response Style Theory (Nolen-Hoeksema, 1991) identifies a ruminative response style as the vulnerability factor that confers risk to depression when activated by negative environmental stressors. Within this theory, an individual with a ruminative response style would perseverate on negative thoughts, events and experiences that in turn would intensify and prolong depressive symptoms. Although there is support for the Response Style Theory in adults (Just & Alloy, 1997; Nolen-Hoeksema et al., 1994; Nolen-Hoeksema, 2000), few studies have examined this theory in younger populations (Abela, Brozina, & Haigh, 2002).

Abramson's Hopelessness Theory (Abramson et al., 1989) identifies individuals' attributional or inferential style as the cognitive vulnerability factor that is activated when confronted with negative life events. Attributional style is defined as an individual's way of assigning explanatory causes to negative or positive life events. Individuals who attribute negative life events to internal (e.g., "It's all my fault"), stable (e.g., "It will always be this way"), and global (e.g., "It will affect everything I do") causes are posited to be more vulnerable to developing symptoms of depression. For example, if an individual believes that there is nothing he or she can do to effect change in the negative event, a sense of hopelessness develops. This hopelessness in turn manifests as depressive symptoms. It is important to differentiate Abramson's hopelessness theory from Beck's study of hopelessness and suicidal behavior (Beck, Kovacs, & Weissman, 1975). Whereas Beck et al. (1975) examined the construct of hopelessness specifically in relation to suicidal intent in primarily adult samples, Abramson focused on hopelessness as it relates to individuals' attributional or inferential styles. Unlike Beck's cognitive

theory of depression or the Response Style theory, Abramson's hopelessness theory has received empirical attention in both the adult (Hankin, Abramson, Miller, & Haefffel, 2004; Metalsky & Joiner, 1997; Reilly-Harrington, Alloy, Fresco, & Whitehouse, 1999) and youth populations (Abela & Sarin, 2002; Abela & Seligman, 2000; Hankin & Abramson, 2001; Lewinsohn, Joiner, & Rohde, 2001; Prinstein & Aikens, 2004; and Southhall & Roberts, 2002) with effects sizes in the average range for studies examining the interaction of attributional style and stress in predicting depression in adolescent samples (Lakdawalla et al., 2007). This suggests that the interaction of life events and attributional style is a stronger predictor of depression as children age. As a result, a majority of the research on child and adolescent depression is framed within the hopelessness model.

Attributional Style and Depression

As stated above, attributional style is the cognitive vulnerability model that has received the most research and theoretical attention in youth developmental psychopathology models (Jacobs et al., 2008; Lakdawalla et al., 2007). Although there is ample support for the association between negative attributional style and increased vulnerability to depression (Chan, 2012; Gladstone & Kaslow, 1995; Joiner & Wagner, 1995; Seligman et al., 1984; Spence, Sheffield, & Donovan, 2002), the nature of the association between attributional style and depression varies somewhat across studies.

Some research suggests that a youth's developmental stage may explain the differential associations found between attributional style and depression. Turner and Cole (1994) propose that attributional styles are acquired during the transition from late

childhood to early adolescence. They suggest that in younger children, attributions may be a direct consequence of negative events and environmental feedback rather than the result of an attributional style. In adolescence however the interaction between attributional style and negative events is believed to predict increases in depressive symptoms. Abela (2001) tested and found support for this developmental hypothesis in a sample of third and seventh grade children. Specifically, Abela (2001) found that negative life events interacted with a depressogenic attributional style to predict increases in depressive symptoms in seventh grade students but not third grade students. Although this supports the notion that attributional style in adolescence can interact with negative life events to predict depressive symptoms, it does not specify predictors of a depressogenic or negative attributional style during this transitional period. Furthermore, these studies did not examine ethnicity as a moderator so it is unclear whether these associations function in the same manner across ethnic groups.

A review of the literature provides support for the association between attributional style and risk for depression. The mechanism by which this association manifests however, requires additional empirical attention. Furthermore, given the dearth of studies examining attributional style in minority populations, even less is known about how attributional style develops and functions in Latino samples. An examination of the cultural and contextual factors that may influence attributional style are warranted.

Predictors of Attributional Style

A variety of factors may shape attributional style in youth. The development of a maladaptive attributional style appears to be a function of factors that include: self-

esteem (Schwartz, Kaslow, Seely, & Lewinsohn, 2000), peer victimization (Gibb, Alloy et al, 2006), parenting style (Garber & Flynn, 2001) and the quality of parent-child relationships in middle adolescence (Stoddard et al., 2011). However, it is unclear whether these factors similarly influence attributional style in Latino youth. Furthermore, little is understood about population-specific factors that may additionally influence the development of a maladaptive attributional style in Latino youth, and are thus overlooked in general samples.

Home setting. In their integrative model for child development in minority youth, Garcia Coll and colleagues (1996) discuss the importance of examining the development of minority youth in the context of the culturally distinct environments in which they function. The authors argue that minority families have specific characteristics that differentiate them from Caucasian families in Western society, creating qualitatively distinct cultural environments at school and at home. These culturally bound family characteristics may shape the development of youths' attributional styles. Specifically, the home setting is an important environment in the lives of children and adolescents, and in fact, is the one the most predictive of functioning in face of contextual risks faced by minority youth. In the current paper, two dimensions of family functioning that appear especially relevant to Latino adolescents are considered: the quality of the parent-adolescent relationship as measured by the level of conflict or criticism present, and the Latino cultural value of familism.

Parent-adolescent conflict and criticism. There is longstanding support for the importance of the parent-child relationship in child development research (Needham,

2008). Positive parent-adolescent relationships are associated with better academic performance (López Turley, Desmond, & Bruch, 2010) and reduced risk for both internalizing and externalizing problems (Grant et al., 2000). Similarly, high levels of parent-adolescent conflict have been associated with poor youth outcomes including decreased school attachment (Vargas, Roosa, Knight, & O'Donnell, 2013), depression and other internalizing disorders (Kuhlberg, Pena, & Zayas, 2010; Mechanic & Hansell, 1989; Smokowski & Bacallao, 2007), low self-esteem (Smokowski, Bacallao, & Buchanan, 2009; Smokowski, Rose, & Bacallao, 2010), and externalizing problems (Gonzales, et al., 2011; McQueen, Getz, & Bray, 2003; Smokowski, Chapman, & Bacallao, 2007). These findings have been replicated in Latino adolescent samples with specific evidence that parent-adolescent conflict predicts low self-esteem and internalizing symptoms in Latino youth (Smokowski & Bacallao, 2007; Smokowski, Bacallao, & Buchanan, 2009). While the quality of the parent-adolescent relationship is relevant to developmental trajectory in other populations, it may be especially important among Latino youth. *Simpatia* is a term used in the literature to describe the common Latino cultural practice of emphasizing the maintenance of positive familial relationships while avoiding controversy and conflict (Guilamo-Ramos et al., 2007). For example, compared to adolescents from a European ethnic background, Fulgini (1998) found that Mexican-American youth were less willing to openly contradict their parents and in general found this behavior to be unacceptable. Furthermore, adolescents from immigrant families in particular had a tendency to downplay individual autonomy and were less willing to argue with and talk back to their parents (Fulgini, 1998). Latino family

members efforts to achieve mutual accord in their interpersonal relationships suggests that failures to achieve this harmony can have deleterious effects on the Latino adolescent's emotional functioning.

Within Latino families, there is evidence that conflict between the mother and adolescent may be more predictive of negative outcomes than conflict between the father and adolescent (Behnke, Plunkett, Sands, & Bamaca-Colbert, 2011; Chung, Flook, & Fuligni, 2009; Crean, 2008). For example, Crean (2008) examined conflict in Latino parent-youth dyads and found that while higher levels of conflict with either parent was associated with higher levels of internalizing and externalizing problems for both boys and girls, conflict with the mother was especially detrimental for Latina girls. Indeed research suggests that frequency of parent-adolescent conflict may vary by parent and adolescent gender. Specifically, compared to adolescent sons, adolescent daughters have been found to have more conflictual relationships with mothers (Behnke, et al., 2011). Additionally, there is some evidence that the quality of the father-adolescent relationship has a greater influence on adolescent sons' behaviors compared to daughters (Behnke, et al., 2011; Bronte-Tinkew, Moore, & Carrano, 2006; Risch, Jodl, & Eccles, 2004).

Although these studies suggest that conflict with same-gender parents may be most meaningful for adolescents, it is also important to consider the influence of traditional parenting roles in Latino cultures on experiences of conflict. Whereas Latino fathers are typically tasked with providing financially for the family, Latino mothers are often responsible for the day-to-day raising of children (Cauce & Domenech-Rodriguez,

2000; Crockett, Brown, Russell, & Shen, 2007; Updegraff, Delgado, & Wheeler, 2009) and thus are possibly more often faced with addressing conflict with adolescents.

It is important to consider that the well-established relationship between mother–adolescent conflict and depression may be mediated by attributional style. In one study examining the relationships amongst social connections, hopelessness and violent behavior, adolescents who had stronger connections to their mothers during early adolescence reported less hopelessness at age 13 (Stoddard et al., 2011). Garber and Flynn (2001) further reported that maternal parenting style significantly predicted young adolescents’ attributional styles in a sample of 6-9th grade students. Thus, parent-adolescent conflict may be an important determinant of attributional style in adolescence; however, this relationship is untested in Latino adolescents.

Familism. The relationship between parent-adolescent conflict and attributional style may be particularly robust in Latino youth in the presence of strong familism. Familism is a multidimensional construct that describes the attachment, loyalty, and reciprocity that characterizes relationships among members of the nuclear and extended family in Latino cultures (Guilamo-Ramos et al., 2007). Researchers theorize that familism is composed of three dimensions: structural, behavioral, and attitudinal. The structural dimension is defined by “the spatial and social boundaries within which behaviors occur and attitudes acquire meaning” (Valenzuela & Dornbusch, 1994, p.18). The presence or absence of the nuclear and extended family members shape these boundaries (Valenzuela & Dornbusch, 1994). The behavioral dimension of familism refers to the degrees of attachment and affinity associated with interactions involving

family members. This refers to how the individual demonstrates values of familism (e.g., how often individuals see family members or speak with distant relatives on the telephone). The attitudinal dimension of familism is the most complex and also the most challenging to measure.

Though varying definitions of attitudinal familism have been proposed, the most inclusive definition of attitudinal familism defines it as a multidimensional construct composed of four components: familial support, familial interconnectedness, familial honor and subjugation of self for family (Steidel & Contreras, 2003). This first component, familial support, refers to the belief that one has a duty to support immediate and extended family members both in everyday life as well as in times of need. Familial interconnectedness is the second factor and refers to the physical and emotional closeness that is expected among family members. The third factor, familial honor, refers to the responsibility of each individual family member to uphold the integrity of the family. The final factor, subjugation of self for family, reflects the belief that the individual must be submissive to and respectful of the family rules.

When individuals are high in familism, they place value on maintaining harmony within the family (Hernandez, Ramirez Garcia, & Flynn, 2010). As a result, repeated instances of conflict with parents may lead adolescents who are high in familism to feel shame from inadequately meeting family obligations. Thus, they may internalize family conflict and blame themselves for failures, developing negative attributions toward the self over time. Little is known about the interaction between familism, family conflict, and attributional style. Some suggest that familism is protective against adjustment

problems in Latino adolescents that include externalizing behaviors (Gonzales et al., 2011; Marsiglia, Parsai, & Kulis, 2009; Morcillo et al., 2011), aggression (Smokowski & Bacallao, 2007), alcohol use (Gil, Wagner, & Vega, 2000), and delinquency (German, Gonzales, & Dumka, 2009; Romero & Ruiz, 2007). Higher levels of familism have also been associated with lower acculturative stress (Gil, et al., 2000) and lower risk for parent-child conflict (Kuhlberg, Pena, & Zayas, 2010).

On the other hand, familism may increase risk for certain forms of psychopathology. Although there is some empirical evidence for the protective nature of familism against internalizing difficulties (Smokowski & Bacallao, 2007; Smokowski, Bacallao, & Buchanan, 2009; Smokowski, Rose, & Bacallao, 2010) other studies have found the opposite effect. For example, Kuhlberg et al. (2010) reported that high levels of familism in Latino youth are associated with higher levels of internalizing problems. This finding is consistent with the hypothesis that high levels of familism may sensitize Latino youth to internalize family conflict and develop a negative attributional style that increases risk for depression.

Mixed findings with respect to the protective value of familism highlight the importance of carefully conducting psychopathology research within the context of Latino cultural constructs. Latinos with higher familism may refrain from engaging in conflict with parents in an effort to maintain a harmonious family relationship (Kuhlberg et al., 2010). However, the emphasis on deference to parents and obligation to family may also create detrimental effects, leading Latino adolescents to internalize higher levels of conflict more than non-Latino American youth. Over time, these adolescents may

develop internal, stable and global attributional styles that contribute to later experiences of depression. Considering the extant literature, it appears that for Latino youth, familism and parent–adolescent conflict may interact in predicting attribution style—high familism may sensitize Latino youth to the effects of high parent-adolescent conflict, producing a negative attributional style over time.

School setting. The school setting represents another important environment that can shape adolescents’ ability to learn and develop academically, socially, and emotionally (Brown & Chu, 2012). School variables that can influence adolescent behavior include teacher and peer characteristics (e.g., experiences of support or discrimination from teachers and peers), as well as the adolescents’ own performance (e.g., how well they are doing in school or academic performance). These variables may subsequently influence how Latino youth attend to, interpret, and remember life events and may inhibit or promote the development of a maladaptive attributional style. We will consider three school variables below (1) academic performance, (2) peer discrimination, and (3) school social support.

Academic performance. Adolescent characteristics in the school setting, such as one’s academic performance, may influence the development of attributional style. Perceived academic competence is a construct related to self-efficacy that may influence the extent to which Latino youth believe they are capable of meeting academic goals. While academic success can be interpreted as a universally important factor for adolescents across cultures, we argue it is particularly salient among Latino immigrant youth. One of the motivators for families immigrating to a new country are increased

educational opportunities for their children (Hill & Torres, 2010). Given that education is one of the primary ways to improve one's economic or occupational circumstances, immigrant families often move to the host country to seek better educational opportunities for their children.

Immigrant parents are not the only members of the family who hope to access academic opportunities; Latino youth also have high postsecondary educational aspirations (Gonzalez, Stein, Shannonhouse & Prinstein, 2012; Perreira, Fuligni, & Potochnick, 2010). Unfortunately factors such as parents' limited English proficiency or students' lack of knowledge about how to access and engage available resources are common barriers that result in a mismatch between Latino students' aspirations and educational and occupational outcomes. In one qualitative study examining future goals of Latino adolescents in an immigrant community, Gonzalez and colleagues (2012) found that youth internalized failures and blamed themselves when they could not achieve their dreams despite the presence of external obstacles such as unfamiliarity with educational system or requirements needed to prepare for and pursue postsecondary schooling. Given the high postsecondary educational aspirations of Latino youth in immigrant families, challenges to those aspirations, such as poor academic performance may be particularly detrimental. Under the hopelessness model, repeatedly perceived negative experiences in school may contribute to the development of a negative or maladaptive attributional style. However, there is no work directly examining whether academic performance predicts attributional style in adolescents.

Discrimination. Experiences of ethnic and/or racial discrimination in the school setting may also contribute to the development of a negative attributional style in Latino youth. Broadly, discrimination represents a risk factor for minority youth, and has been negatively associated with adolescents' physical, psychological and academic functioning (Berkel et al., 2010; DeGarmo & Martinez, 2006; Greene, Way, & Pahl, 2006; Hwang & Goto, 2008; Stein, Gonzalez, & Huq, 2012; Umana-Taylor & Updegraff, 2007; Zeiders, Umana-Taylor, & Derlan, 2013). Ethnic or racial discrimination is defined as unequal and unfair treatment of people on the basis of race, religion, skin color, or nationality. Members of ethnic minority groups in the United States have a long history of discriminatory experiences. In one study (Fisher, Wallace, & Fenton, 2000) of Black, Latino, White, East Asian and South Asian adolescents, 57% of participants reported being called racially insulting names, 45% reported being hassled by a store clerk or store guard because of their race or ethnicity, and 31% reported being threatened by peers because of their race or ethnicity. In a more recent study of the prevalence of discrimination among minority youth, over 60% of Asian, Latin American, and European adolescents reported experiencing some form of peer or adult discrimination ranging from being treated unfairly to being called names because of their ethnicity (Huynh & Fuligni, 2010). National estimates of perceived discrimination among Latinos specifically indicate that 30% of Latino adults report daily experiences of discrimination (Perez, Fortuna, Alegria, 2008). Furthermore, the younger to middle-aged cohorts were significantly more likely to report daily discrimination, with approximately 50% the

youngest age cohort (age 18-24 years) reporting daily experiences of unfair treatment due to their ethnicity.

Research has demonstrated the negative effects of discrimination on psychological adjustment and well being (Berkel et al., 2010; Greene et al., 2006; Hwang & Goto, 2008; Stein et al, 2012; Umana-Taylor & Updegraff, 2007; Zeiders et al., 2013). Given that adolescence is a critical period for the development of identity and self-concept, experiences of racism and discrimination during this time may be particularly detrimental to adolescents' self-esteem. Several studies have documented the harmful effects of ethnic or racial discrimination on self-esteem in youth (Edwards & Romero, 2008; Fisher et al., 2000; Greene et al., 2006; Huynh & Fuligni, 2010). For example, Huynh and Fuligni (2010) examined the association between both global and daily discrimination and the academic, psychological, and physical well being of minority and immigrant youth and found that discrimination predicted lower self-esteem across ethnic groups. Edwards and Romero (2008) similarly found that stress associated with experiences of discrimination was also associated with lower self-esteem in a sample of Mexican American adolescents. Furthermore, adolescents' coping strategies were found to moderate the impact of discrimination stress on self-esteem, suggesting that functioning is influenced by a youth's interpretation of discriminatory experiences. These studies indicate that: (1) ethnic and/or racial discrimination is a pervasive stressor in the lives of Latino adolescents and (2) these experiences negatively impact adolescents' self-esteem and may reduce feelings of self-efficacy and control. Considering the findings above, it is possible that Latino youth who experience high levels of discrimination may

develop particularly maladaptive attributional styles (Schwartz et al., 2000) that in turn foster feelings of helplessness and depressive symptoms.

School social support. In addition to academic problems and discrimination at school, social support from classmates and teachers might also influence the attributional styles of Latino youth. Much of the literature regarding psychopathology in Latinos has focused on culturally based support accessed from the family environment with less attention to interpersonal support found in other contexts (Garcia Coll et al., 1996). Research suggests social support is critical to healthy adolescent development, particularly for ethnic minority youth (Brown & Chu, 2012; DuBois et al., 2002; Grolnick, Kurowski, Dunlap, & Hevey, 2000; Nestmann & Hurrelmann, 1994) and that for adolescents, the majority of peer interactions occur in the school setting (Rubin, Bukowski, & Parker, 2006).

A number of studies document the importance of social support on adolescent adjustment (Crean, 2004; Demaray & Malecki, 2002; Lopez, Ehly, & Garcia-Vasquez, 2002). Perceived social support has been linked with overall adaptive functioning (Demaray & Malecki, 2002), fewer depressive symptoms (Cheng, 1997; Garnefski & Diekstra, 1996), and better academic outcomes (McLaughlin & Clarke, 2010). Demaray & Malecki (2002) examined the relationships among school-aged children and adolescent students' perceived social support and their academic, behavioral and social functioning. In general, they found that students with average and high levels of perceived social support had better outcomes compared to students with low levels of perceived social support. Perceived social support from parents, teachers, classmates and close friends was

significantly related to how students perceive themselves and may speak to how they cope with future stressors. Specifically, the authors found that support from classmates in particular was related to positive outcomes including self-concept and adaptive skills. Conversely, low levels of perceived social support were associated with increased problem behaviors and internalizing problems.

Studies conducted with Latino youth also support the notion that social support buffers against a range of psychopathologies. In a study examining risk and protective factors in a sample of Latino adolescents, Crean (2004) found that social support was positively associated with psychological adjustment (i.e., lower internalizing and externalizing symptoms) and school competencies (GPA, classroom-conduct scores and peer ratings of social competence). Moreover, the author found that social conflict, or interpersonal problems with parents, friends, and school personnel, was positively associated with adolescent symptomatology. In the context of the hopelessness theory, the relationship between social support and internalizing symptoms may be mediated by attributional style (though no studies have directly examined this question). For example, peers may normalize negative experiences, preventing the development of a negative attributional style. Thus in the presence of high social support from classmates and teachers, Latino adolescents who experience negative life events may be protected against the development of a negative attributional style. Over time, the benefits of perceived school social support may provide adolescents with the cognitive flexibility to make more balanced inferences about experiences and protect against depressogenic

attributional style even in the face of persistent negative experiences such as discrimination and poor academic performance.

Consideration of Context-Specific Attributional Patterns

Full understanding of an adolescent's attributional style may require consideration of context. According to the integrative model of child development (Garcia Coll et al., 1996), experiences across environments (e.g., school, home) shape the development of adolescents' cognitive, emotional and social competencies. Attributional style could be considered a cognitive competency as it reflects how adolescents conceptualize and interpret life events across environmental domains. Although most children and adolescents are exposed to similar settings (i.e., home and schools), Garcia Coll and colleagues argue the relative importance of these systems for the development of competencies varies according to cultural influences, values and goals. More specifically experiences in these settings can promote, inhibit or simultaneously promote and inhibit the manifestation of developmental competencies, such as attributional style. In addition, for Latino youth, home and school experiences may vary widely in terms of supportiveness, cultural context, and discrimination experiences. As a result, a Latino adolescent's experiences in each environment may uniquely contribute to developing attributional style, which may also be context specific. Depending on their values, adolescents may be primed to experience a depressogenic attributional style in certain situations more so than other situations. For instance, an adolescent who values academic achievement may be more sensitized to interpret negative school experiences in a depressogenic inferential style compared to another adolescent who cares little about

school success. This supports the importance of examining attributions in various contexts separately when considering their contribution to adolescent depression.

Context Specific-Attributional Patterns and Depressive Symptoms

It is also important to consider whether context-specific attributions are differentially meaningful in predicting depressive symptoms. There is support suggesting that maladaptive attributions across domains may be related to depression in different ways (Carter & Garber, 2011). For example, in one longitudinal study examining stressors, negative cognitions and depression in adolescence, researchers found that while both interpersonal and achievement related stressors were predictive of depression, the nature of the associations between these stressors and depression varied (Carter & Garber, 2011). Whereas interpersonal stressors were found to interact with negative cognitions (including maladaptive attributions) to predict depression, this interaction was not found for achievement related stressors. One explanation for the lack of interaction between achievement stressors and maladaptive cognitions may be due to mismatch between the types of stressors and the cognitions tested. In other words, it may be that an achievement related stressor such as earning a poor grade on an exam would interact with an achievement related cognitive style to predict depression.

Alternatively, these findings may suggest the relative importance of interpersonal stressors above achievement stressors in the prediction of depressive symptoms. Indeed, research suggests that interpersonal stressors are more strongly related to depression when compared to non-interpersonal stressors (Rudolph & Hammen, 1999; Rudolph et al., 2000). Given the salience of interpersonal relations in adolescence, and familial

relationships among Latinos, attributions that occur within an interpersonal context may have a stronger influence on psychological functioning than attributions that are strictly related to achievement related goals.

Summary

The ultimate purpose of this paper is to present a study that identifies contextual factors that may lead to the development of maladaptive attributional styles in Latino youth. Conclusions from the initial literature review are that: (1) the hopelessness theory of depression, which posits a central role of attributional style in symptom development, is particularly relevant for adolescents; (2) for Latino youth, interpersonal experiences at home and school may be critical factors in the development of attributional style; and (3) context-specific attributional styles (i.e., attributions in the achievement or interpersonal domains) may differentially predict depression in youth.

Specifically, the extant literature contains evidence that Latino youth are at increased risk for depression. The cognitive theory of depression with the most support among adolescent populations is the hopelessness theory. This theory suggests maladaptive attributional styles, that is, attributing negative life events to internal, stable, and global causes, function as a vulnerability to depression. The numerous social, emotional, and physiological changes that occur during adolescence make it a developmentally sensitive time for youth to be confronted with negative life events. Although some findings identify initial predictors of maladaptive or negative attributional styles, specific cultural characteristics may magnify risk among Latino youth, who are understudied in the literature. In order to serve these groups in a developmentally and

culturally competent manner, it is important to understand the mechanisms by which depression develops in this population. Data suggests factors salient to Latino youth such as family (parent/adolescent conflict or criticism, familism,) and school (academic performance, peer discrimination, social support) variables may play a role in the development of depression specifically by influencing the adolescent's attributional style.

Goals and Hypothesis

The goals of the current study were to (1) examine the factors that lead to the development of maladaptive attributional styles, (2) explore whether these variables can predict contextual differences in attributional style, and finally (3) explore whether context-specific attributional style differentially predicts depression in a sample of Latino youth.

Aims 1 and 2: Predicting Attributional Style

The first aim of the study was to determine the association between (1) home and (2) school variables in predicting adolescents' attributional style. Hypothesis 1a states that negative family experiences (greater conflict and criticism) will predict a more maladaptive attributional style. Furthermore, the relationship between negative family experiences and attributional style will be moderated by familism such that high levels of familism in the presence of high parent-adolescent conflict will lead to the most negative attributional style. Conversely, familism is predicted to buffer the effects of low parent-adolescent conflict on attributional style. Hypothesis 1b states that negative school experiences (poor academic performance, experiences of peer discrimination) will predict maladaptive attributional style. School social support is predicted to buffer the negative

influence of poor academic performance and experiences of discrimination. The second aim of the study was to explore whether home and school variables predict contextual differences in attributional style (interpersonal vs. achievement). Hypothesis 2 states that home and school variables will uniquely predict subtypes of attributional style. Specifically, while both home and school variables are hypothesized to predict interpersonal attributional style, only school variables (academic performance, peer discrimination, school social support) are hypothesized to predict achievement attributional style.

Aim 3: Attributional Style and Depressive Symptoms

The third aim of the study was to explore whether context-specific attributional style (i.e., attributions regarding interpersonal or achievement oriented events) differentially predicts depression. Hypothesis 3 states that attributional style in each of these contexts will uniquely predict current depressive symptom severity such that interpersonal attributional style will more strongly predict depressive symptoms as compared to achievement attributional style.

CHAPTER II

METHOD

Participants in this study were drawn from the CAMINOS project. Latino youth in all 7th, 8th, 9th, and 10th grade classrooms were recruited from three schools in North Carolina (two middle schools and one high school). Recruitment occurred in three ways. First, parents and families were approached at an open house event at the high school. Second, the schools each provided the research team with the phone numbers of all the Latino students at their respective schools. The research team called each family to obtain consent. The majority of the phone call consents were conducted in Spanish. Third, along with the phone call recruitment, all of the Latino parents received a recruitment letter and consent form that was sent home with their child from school. The recruitment letters and consent forms were in English and in Spanish. The students were asked to take the forms home and bring them back to the main office at their school. The research team collected the forms from the schools.

Survey administration was completed in the participating school's cafeteria in the fall of 2010, during periods determined by the principal and the teachers. The students were given a youth assent. The participants had the option to have an English or Spanish version of the survey. One student chose to complete the survey in Spanish. Measures not available in Spanish were translated and back translated using a modified procedure

outlined by Brislin (1986). Two undergraduate students who were native speakers of Spanish translated and back translated the measures. The two principal investigators (both bilingual, one Mexican American) resolved discrepancies jointly. The team encouraged participants to ask for assistance at any point during the survey and checked each questionnaire to ensure the quality of the data.

Participants

There were 442 Latino students total among the three schools. Of the 442 students' families, 425 were called on the phone while 17 families were approached at the open house. Of the 17 students that were approached at the open house, 14 students participated in the study. Of the parents that were contacted over the phone, 221 parents consented to have their child participate (79% of those reached; 50% of total) and 40 parents declined to have their child participate (14% of those reached; 9% of total). Seven parents consented their child through the letter that was sent home through the school. The researchers were unable to contact 164 families (37% of total) due to disconnected numbers and inability to reach the parent. One student withdrew from the study. In total 191 students (68% of those reached; 43% of total) assented and participated in the current study. There were missing data for 20 students on some of the study variables. These students did not differ significantly from those with complete data on attributional style ($t = 1.50, p = NS$) so they were not included in the current sample. One student's survey

was determined to be invalid due to inconsistent responses throughout the survey and not included in the current sample. Thus, the final sample included 170 adolescents.

The mean age of participants was 14.06 ($SD = 1.33$), and 55% were female. The majority of participants were in grades 8 (28.2%), 9 (27.1%) or 10 (24.7%). The participants were primarily of Mexican origin (59.4%), with the remainder reporting mixed Latino or Hispanic heritage (30.6%), or Caribbean, Central American, or Spanish heritage (<5% each). Regarding nativity, 67 of participants were born in other countries. The majority of participants (92.4%) reported that both of their parents were born outside of the U.S. Although the sample is majority Mexican American, Latino will be used for parsimony.

Measures

Measures are located in Appendix A.

Demographic information

Relevant demographic data were collected, such as the participant's age, grade in school, current academic grades in school, sex, country of birth, and age of migration if born elsewhere.

Academic Performance

Participants' academic performance was assessed using a single self-reported item; "*Which of the following best describes the grades you are getting in school?*" Participants rated their academic performance on a scale ranging from 1 (*mostly A's*) to 9 (*mostly F's*). These responses were recoded to reflect a 4.0 grading scale (e.g., *mostly A's* = 4.0; *As and B's* = 3.5).

Familism

The 18-item Attitudinal Familism Scale (Steidel & Contreras, 2003) was used to assess the adolescents' beliefs and attitudes toward the family. The responses are on a 10-point Likert-type scale, ranging from 1 (*strongly disagree*) to 10 (*strongly agree*) and grouped into four subscales. The first subscale is *familial support*, which includes six items such as “*Aging parents should live with their relatives.*” *Family interconnectedness*, a second subscale, is composed of five items. A sample item is “*A person should cherish time spent with his or her relatives.*” A third scale, *family honor*, is made up of four items such as “*A person should feel ashamed if something he or she does dishonors the family name.*” Fourth, *subjugation of self* for the family consists of three items. For example, “*A person should be a good person for the sake of his or her family.*” The internal consistency reliability for the overall scale was high (Cronbach's $\alpha = .83$). An average score was calculated for the entire measure to reflect total familism as has been done in previous research (Kuhlberg, Peña, & Zayas, 2010). Cronbach's alpha for the current sample was high (Cronbach's $\alpha = .91$).

Parent-Adolescent Conflict and Parental Criticism

Three items measuring parent-child conflict and three items measuring parental criticism were taken from the Network of Relationships Inventory-Relationship Qualities Version (NRI-RQV; Furman & Buhrmester, 2009). The Network of Relationships Inventory (NRI) was developed to examine a broad array of relationship characteristics across a number of different types of personal relationships (Furman & Buhrmester, 1985). NRI-RQV is the third version of the NRI and employs a more eclectic set of

relationship qualities to describe the supportive and discordant qualities of relationships among children, adolescents, and adults. Participants rated the frequency of experiencing conflict with their mother or female caregiver from 1 (*never*) to 5 (*always*). Sample items include how often “*Do you and this person disagree and quarrel with each other?*” and “*Does this person point out your faults or put you down?*” Cronbach’s alphas for parent-child conflict were .80 and .76 for parental criticism, based on a sample of 219 11-12 year old children (80% white) from the suburban public schools in Richardson, Texas. Cronbach’s alpha in the current sample was .77 for parent-child conflict and .78 for parental criticism. The items were averaged to represent conflict.

School Social Support

Adolescents’ perceived social support from classmates and teachers was assessed using 24 items from the 40-item Child and Adolescent Social Support Scale (CASSS; Malecki, Demaray, & Elliot, 1999) Version 2 (designed for children from 6th to 12th grade). Items assessing adolescents’ perceived support from parents were excluded to reduce multicollinearity with our measure of familism. Frequency ratings consisted of a 6-point Likert scale from 1 (*never*) to 6 (*always*), and the mean score was calculated for analysis. Higher means signified greater perceived support. Sample items included “*My classmates like most of my ideas and opinions,*” and “*My teacher(s) takes time to help me learn to do something well.*” Cronbach’s alpha in the original study was .94 for both males and females, .94 for White, and .95 for minority students (Demaray & Malecki, 2002). Cronbach’s alpha in the current sample was .96. The CASSS was correlated with

other measures of social support (e.g., the Social Support Scale for Children at $r = .70$), which supports convergent validity (Demaray & Malecki, 2002).

Peer Discrimination

The 21-item Way Discrimination Scale (WDS) was used to assess peer discrimination. The measure was based on in-depth, semi-structured interviews with over 150 Black, Latino and Asian American adolescents (Rosenbloom & Way, 2004). Adolescents reported whether they experienced a specific discrimination event on a five-point Likert scale ranging from 1 (*never*) to 5 (*all the time*). Sample items include, “*How often do you feel that other students in school make fun of you because of your race or ethnicity?*” and “*How often do you feel that other students in school expect that you will get bad grades because of your race or ethnicity?*” Three items describe positive experiences due to race/ethnicity and were not utilized in the current study. In previous research, the WDS responses were dichotomized to zero and one due to low level of endorsement at the higher frequency (Rivas-Drake, Hughes, & Way, 2008). This step was taken with the current data as well, as the mean level of discrimination reported was similar to previous studies. Thus, zero represented “*never*” and one represented any reported instance of discrimination, whether infrequent or frequent. Items with ones were summed to represent total discrimination events, with higher scores indicating more types of experiences. The sum score was within acceptable ranges of skewness and kurtosis. The scale has demonstrated good psychometric properties (Greene, Way, & Pahl, 2006) with Cronbach’s alphas for discrimination by peers of .89-.93. In the current sample, the dichotomized measure demonstrated adequate reliability (Kuder-Richardson $\alpha = .95$).

Attributional Style

The Adolescent Cognitive Style Questionnaire (ACSQ; Hankin & Abramson, 2002) was used to assess adolescents' cognitive errors. The original ACSQ consists of 12 hypothetical negative event scenarios (6 interpersonal, 6 achievement) relevant to adolescents. We removed four items from the original ACSQ (1 interpersonal, 3 achievement). The final version contained eight items: five about social events and three about achievement events. Adolescents were presented with a hypothetical negative event and asked to write down one cause for the event. Participants then rated the degree to which the cause of the hypothetical event was (a) internal, (b) stable, and (c) global (negative inferences for causal attributions). Participants also rated the likelihood that further negative consequences will result from the negative event and the degree to which the occurrence of the event signifies that the person's self is flawed. Scores on the ACSQ scale ranges from 1 to 7. Internal consistency for the overall ACSQ scale is .95 with a sample of 219 adolescents in the 9th through 12th grade, the majority of whom were White (Hankin & Abramson, 2002). In the current study, an average score was used to determine overall attributional style (Cronbach's $\alpha = .95$). The mean of the three achievement items (Cronbach's $\alpha = .88$) and the five interpersonal items (Cronbach's $\alpha = .93$) were calculated to produce the achievement and interpersonal subscale scores. Higher scores indicate more negative or maladaptive attributional style.

Depressive Symptoms

The Mood and Feelings Questionnaire (MFQ; Angold, Costello, Pickles, Winder, & Silver, 1987) was used to assess students' depressive symptoms. The 33-item Likert-

type scale measures the extent to which students experienced depressive symptoms in the past two weeks. The measure included items such as “*I didn’t enjoy anything at all*” and “*I felt I was no good anymore.*” Students reported whether the statement was *not true* (0), *sometimes true* (1) or *mostly true* (2). The MFQ has been utilized with Latino participants previously (e.g., Chartier et al., 2008). This measure has demonstrated adequate validity, as it was used to discriminate between subjects with and without major depressive episodes (Daviss et al., 2006). Reliability in the Daviss sample was very good (Cronbach’s $\alpha = .95$). Cronbach’s alpha for the current study was .94. The items were averaged to compute a mean score to represent total depressive symptoms, with higher scores indicating more symptomatology.

Analytic Strategy

Predicting Attributional Style

A three-step hierarchical multiple regression analysis was conducted to investigate the first hypothesis of the study. Attributional style was the dependent variable across all steps. Prior to the central analyses, descriptive statistics and residual plots were examined for all study variables (see Table 1). Pearson’s zero order correlations were obtained among all variables (see Table 2) and variance inflation factor tests were completed to assess for multicollinearity. Visual inspection of residual plots were conducted to further test assumptions of linearity, homoscedasticity, and normality of residuals. *R-square* and *R-square change* values were examined to determine the incremental value of each set of independent variables in the prediction of attributional

style. When the omnibus tests indicated significance, tests of regression coefficients were used to determine unique prediction of each term in the equations.

Step 1: Gender, Age. Demographic variables were entered in the first step to control for the influence of gender and age.

Step 2: Home and school setting variables and attributional style. To investigate whether home and school setting variables were associated with negative attributional style, parent-adolescent conflict/criticism, familism, academic performance, discrimination, and social support were entered into the models at the second step. The main effects of these variables were examined separately by examining tests of beta coefficients and referencing squared semipartial correlations as an index of effect size.

Step 3: Familism and social support as moderators. To examine whether familism moderates the relation between parent-adolescent conflict and attributional style, the interaction between familism and parent-adolescent conflict was entered at the third step. To examine whether school social support moderates the relation between school setting variables (academic performance, peer discrimination) and attributional style, the interaction between each of these variables and social support was also entered at this step. All variables were mean-centered prior to inclusion in the interaction term (Aiken & West, 1991).

Predicting Contextual Differences in Attributional Style

Additional multiple regression analyses were conducted to assess whether a different pattern of prediction emerged for attributional style in two different contexts (academic and interpersonal). Academic achievement attributional style was the

dependent variable across all steps in the second regression analysis. Interpersonal attributional style was the dependent variable across all steps in the third regression analysis. As described above, demographic variables were entered in the first step to control for the influence of gender and age. Home and school setting variables were entered into the models at the second step. Interactions between home and school variables and identified moderators (i.e., familism, school social support) were entered at the third step.

Attributional Style and Depressive Symptoms

A fourth multiple regression analysis was conducted to assess whether attributional style within the context of interpersonal or achievement oriented domains predicted depressive symptoms. Depression was the dependent variable across all steps. Steiger's Z-test (Steiger, 1980) was completed prior to regression analysis to ensure the two domains possessed adequate unique variance to judge them as distinct contexts.

Power Analysis

A power analysis was conducted using G*Power 3.1. With a sample size of 170, an alpha of .05, and power set at .80, the maximum number of predictors in this study (10 variables) allows for the prediction of a minimum R^2 value of .09. Thus this study is adequately powered for a small omnibus effect.

CHAPTER III

RESULTS

Descriptive statistics for all dependent and independent variables are displayed in Table 1. Intercorrelations among the study variables are presented in Table 2. Results indicated that gender and age were significantly related to the predictor variables. There was a significant effect for gender, with females having higher parent-adolescent conflict means, $t(168) = 2.38, p < .05$, higher familism means, $t(137.45) = 2.26, p < .05$, and higher academic performance means, $t(144.27) = 3.75, p < .01$ when compared to males. There were also modest but significant correlations between older ages and experiencing more perceived discrimination from peers ($r = .23, p < 0.01$), less school social support ($r = -.16, p < .05$), less familism ($r = -.23, p < .01$) and lower academic performance ($r = -.16, p < .05$). Negative or maladaptive attributional style was correlated with study variables in the expected directions (positive for depressive symptoms, parent-adolescent conflict, and peer discrimination, negative for familism and school social support). The correlation between interpersonal and achievement attributional styles was high as expected ($r = .81, p < .01$). Greater depressive symptoms were associated with a more maladaptive interpersonal attributional style, ($r = .41, p < .01$), and a more maladaptive achievement attributional style, ($r = .28, p < .01$). These correlations with depressive symptoms were significantly different ($Z = 2.94, p < .01$). Both interpersonal and achievement attributional styles were positively correlated with parent-adolescent

conflict/criticism and perceived discrimination from peers. Interpersonal attributional style was negatively correlated with familism ($r = -.19, p < .05$) and school social support ($r = -.22, p < .01$). Positive associations were found with depressive symptoms and parent-adolescent conflict ($r = .31, p < .01$) and perceived discrimination from peers ($r = .34, p < .01$). Depressive symptoms were negatively correlated with familism ($r = -.23, p < .01$) and social support ($r = -.30, p < .01$).

Predicting Overall Attributional Style

For overall attributional style, the model reached significance when home and school variables were entered at step 2, $R^2 = .27, F(5, 162) = 12.30, p < .001$ (see Table 3). There was no incremental contribution of the interaction terms entered at step 3, $\Delta R^2 = .01, F(3, 159) = 0.71, p = .55$. At step 2, higher parent-adolescent conflict, $t(162) = 4.05, p < .001$, and higher perceived peer discrimination, $t(162) = 4.74, p < .001$, were significant predictors of maladaptive attributional style after controlling for age and gender. There was also a modest but significant effect for age, $t(162) = -2.04, p < .05$, such that younger adolescents were more likely to display a maladaptive attributional style. All other main and interaction effects were non-significant.

Predicting Achievement Attributional Style

For achievement attributional style, the model reached significance when home and school variables were entered at step 2, $R^2 = .22, F(5, 162) = 9.26, p < .001$ (see Table 4). There was no incremental contribution of the interaction terms entered at step 3, $\Delta R^2 = .01, F(3, 159) = 0.61, p = .61$. At step 2, higher parent-adolescent conflict, $t(162) = 3.16, p < .01$, and higher peer discrimination were significant predictors of maladaptive

achievement attributional style, $t(162) = 4.86, p < .001$, after controlling for age and gender. These variables accounted for 22% of the variance in achievement attributional style. All other main and interaction effects were non-significant.

Predicting Interpersonal Attributional Style

For interpersonal attributional style, the model reached significance when home and school variables were entered at step 2, $R^2 = .28, F(5, 162) = 12.44, p < .001$ (see Table 5). There was no incremental contribution of the interaction terms entered at step 3, $\Delta R^2 = .01, F(3, 159) = 0.86, p = .47$. At step 2, parent-adolescent conflict, $t(162) = 4.23, p < .001$, and perceived peer discrimination, $t(162) = 4.24, p < .001$, were significant predictors of interpersonal attributional style. There was also a significant effect for age, $t(162) = -2.25, p < .05$, such that younger adolescents were more likely to display a maladaptive interpersonal attributional style. These results indicated that familism, academic performance and school social support provided no incremental prediction over the parent-adolescent relationship and peer discrimination and that Latino adolescents who experienced higher rates of conflict with their mothers and perceived more discriminatory experiences from peers were more likely to have maladaptive interpersonal attributional styles.

Predicting Depressive Symptoms

For depressive symptoms, the overall model was significant, $R^2 = .17, F(2, 165) = 17.53, p < .001$ (see Table 6). Greater depressive symptoms were predicted by more maladaptive interpersonal attributional style, $t(165) = 4.38, p < .001$. This variable accounted for 17% of variance in depressive symptoms. These results indicated that

adolescents' attributional style regarding achievement oriented events provided no incremental prediction over attributional styles regarding interpersonal scenarios

CHAPTER IV

DISCUSSION

Few studies have examined cognitive vulnerabilities among Latino youth; even fewer have investigated predictors of maladaptive attributional style for this population. Additionally, no studies have examined context specific differences in attributional style. This is the first study to examine the effects of specific home and school factors salient to Latino youth as predictors to attributional style. The current study addressed these gaps in the literature by testing these associations in a sample of Latino adolescents. The current study investigated: (1) the association between home and school factors and the development of maladaptive attributional styles in a population of Latino adolescents, (2) whether home and school factors differentially predicted context-specific attributional style (i.e., achievement and interpersonal), and (3) whether attributions in academic and interpersonal domains differentially predicted depressive symptoms. This study produced three main findings: (1) Latino adolescents who experienced higher rates of parent-adolescent conflict/criticism and higher rates of perceived peer discrimination were at risk for the development of maladaptive attributional styles; however, neither familism nor school social support predicted attributional style, (2) the pattern of prediction did not vary by context, and (3) adolescents with more maladaptive interpersonal attributional style were at particularly high risk for the development of depressive symptoms. Each of these findings is discussed below.

Consistent with previous research (e.g., Stoddard et al., 2011), the present study found a significant association between the quality of the mother-adolescent relationship and attributional style in adolescence. Specifically, results suggest Latino adolescents who have conflictual relationships with their mothers are at risk for internalizing the cause of negative events. This association was present across environments. That is, high rates of conflict and maternal criticism were related to adolescents' maladaptive attributions in both interpersonal and academic achievement oriented scenarios. It may be that Latino adolescents who experience high levels of maternal control and criticism develop a tendency to self-blame and make internal attributions about negative events. For example, Garber and Flynn (2001) found that children's attributional style was predicted by maternal parenting style. Specifically, the authors found that child-rearing practices characterized by rejection or absence of warmth and affection were related to more self-blaming attitudes, which subsequently increased children's vulnerabilities to depression. Schwartz et al (2000) similarly found an association between adolescents' interpersonal functioning (social competence, conflict with parents, and social support) and their explanatory styles, both concurrently and prospectively. The findings of the current study reinforce the parent-adolescent relationship as an important context in which cognitive vulnerabilities to depression may develop, particularly for Latino youth who highly value family cohesiveness (Hernandez et al., 2010).

The quality of the parent-adolescent relationship, however, is only one factor that might underlie the development of maladaptive attributions in Latino youth. Therefore, following the suggestion of Garcia Coll et al., (1996), the present study also examined the

contribution of variables outside the home setting (i.e., academic performance, peer discrimination, school social support). The findings in the present study reveal a significant association between perceived discrimination by peers and maladaptive attributional style. That is, adolescents who experienced higher rates of peer discrimination were more likely to attribute the cause of negative events as internal to themselves, unchanging across time, and affecting more than one domain of their lives. This finding is similar to research documenting the negative effects of discrimination on youth psychological functioning (Edwards & Romero, 2008; Fisher et al., 2000; Greene et al., 2006; Huynh & Fuligni, 2010; Stein et al., 2012). The results of the current study suggest that experiences of discrimination influence psychological adjustment not only by harming Latino adolescents' self-esteem (Edwards & Romero, 2008), but also by influencing how these youth interpret and explain their experiences. It may be that persistent discriminatory experiences engender feelings of hopelessness among Latino youth who feel they have no control over how others view members of their ethnic group. Thus, frequent exposure to discrimination might be one process by which cognitive vulnerabilities develop among Latino adolescents.

Several of the hypothesized predictors of attributional style were non-significant. Familism, academic performance and school social support were not found to be predictive of adolescents' attributional styles in the regression analyses. Additionally, familism and school social support were not found to moderate the association between home (parent-adolescent conflict/criticism) and school (academic performance, peer discrimination) setting variables. Although there is support for familism as protective

against internalizing problems in youth (Smokowski & Bacallao, 2007; Smokowski et al., 2009; Smokowski et al., 2010), and maladaptive attributional style as a significant cognitive vulnerability in adolescence (Lakdawalla et al., 2007), no study has directly examined the relation between familism and attributional style. Thus, it may be that familism is associated with internalizing problems through an alternative process. It is also important to note the small but significant negative correlation between familism and attributional style ($r = -.17$ $p < .01$). These results suggest that while there may be a direct relationship between familism and adolescents' attributional style, this association is reduced to non-significance when home and school variables are examined within the same model. In other words, familism was not significantly associated with attributional style once the level of adolescents' conflict with mothers and perceptions of peer discrimination were taken into account.

Similarly, the lack of association between adolescents' academic performance and attributional style in our model may suggest that other school related variables are more strongly related to cognitive vulnerabilities for depression among Latino adolescents. Alternatively, it may be that poor academic performance is a long-term consequence rather than an antecedent to maladaptive attributional style— there is some empirical support for students' attributional styles predicting academic achievement (Gibb, Zhu, Alloy & Abramson, 2002). Finally, despite the documented benefits of social support on youth outcomes (Crean, 2004; Demaray & Malecki, 2002; DuBois et al., 2002; Lopez et al., 2002), the current study also failed to find support for school social support as a predictor of adolescents' attributional style in the full model. Although there was a

significant negative correlation between school social support and adolescents' attributional style ($r = -.20, p < .01$), the predictive ability of social support was non-significant when examined in conjunction with other home (i.e., mother-adolescent conflict) and school (i.e., peer discrimination) variables. This suggests that the association between school social support and attributional style is better accounted for by the variance shared with mother-adolescent conflict and peer discrimination. Alternatively, it may be that the social support provided by classmates and teachers is insufficient in the face of particularly negative interpersonal stressors such as high conflict with mothers or discrimination by peers.

The current study contributed to the research base by examining contextual differences in predictions of attributional style. Results indicate the pattern of prediction did not vary by context. Namely, parent-adolescent conflict/criticism and perceived peer discrimination predicted maladaptive attributional style in the context of both interpersonal and achievement scenarios. These results suggest that experiences in the home (conflict) and experiences at school (peer discrimination) influence not only how adolescents explain and understand the cause of negative interpersonal interactions but also how they interpret achievement related failures. While these stressors occur in different settings, they are both of an interpersonal nature. There is ample support for the role of interpersonal stressors in the development of depression (Carter & Garber, 2011; Calhoun et al., 2012; Eberhart & Hammen, 2006; Gotlib & Hammen, 1992; Hammen, 2009; Hamilton et al., 2013; Joiner & Coyne, 1999). Additionally, some research suggests interpersonal stressors have a stronger relation to depression than

noninterpersonal stressors (Rudolph & Hammen, 1999; Rudolph et al., 2000). The findings in the current study provide additional support for this hypothesis, and identify mother-adolescent conflict and discrimination by peers as particularly relevant interpersonal stressors for Latino youth. These stressors play a significant role in how Latino adolescents interpret negative events involving interactions with others, as well as those that involve failures or disappointment in relation to goals. These youth may be particularly sensitive to interpersonal stressors given the affiliative nature of the Latino culture.

The current study also contributes to our understanding of contextual differences in attributional style. Specifically, the unique predictive ability of maladaptive attributions in achievement and interpersonal scenarios were examined. Interestingly, although achievement and interpersonal attributions were highly correlated, the results indicate that Latino adolescents' maladaptive attributions regarding interpersonal situations better predicted depressive symptoms. A *post-hoc* exploration of squared semi-partial correlations revealed that interpersonal and achievement attributional styles predicted 17% of the variance in depressive symptoms—7% of this variance was shared, 9% unique to interpersonal attributional style, and only 1% unique to achievement attributional style. These findings further support the specific role interpersonal vulnerability factors play in contributing to depressive symptoms, above and beyond ubiquitous maladaptive cognitions. Taken together these findings suggest that Latino adolescents with high conflict at home and high perceived discrimination by peers are at highest risk for developing a negative attributional style in both achievement and

interpersonal contexts. In turn, these negative attributions, particularly with respect to interpersonal or social situations, may contribute to the development of depression.

Several limitations of the current study should be taken into account. These limitations provide direction for future research. First, our data is limited in that it is not longitudinal. As a result, a formal mediational model cannot be tested; however, our findings offer preliminary cross-sectional support for the associations that would be expected in such a mediational model. Future research should test these relationships longitudinally, and examine attributional style as the mediating mechanism that links mother-adolescent conflict and peer discrimination to depressive symptoms. Of note, the predictors examined in this study explained between 23-29% of the variance in attributional style indicating that there are additional factors that contribute to the development of maladaptive attributions in Latino youth. Similarly, attributional style accounted for 17% of the variance in depressive symptoms and there are likely additional key determinants of depression for these youth.

The current study was also limited to examining adolescents' relationships with their mothers alone. Although few studies have examined the role of Latino fathers, there is some support for the importance of the Latino father-adolescent relationship in youth outcomes, particularly for boys (Behnke, et al., 2011; Bronte-Tinkew, Moore, & Carrano, 2006; Risch, Jodl, & Eccles, 2004). Additionally, there is evidence that conflict between Latino mothers and adolescents more negatively influences adolescent daughters compared to adolescent sons (Behnke, et al., 2011; Chung, Flook, & Fuligni, 2009). It may be important for researchers to consider how differences in the socialization of

males and females in the Latino culture are related to experiences of conflict between parents and adolescents. It is possible that varying cultural expectations for Latino/a males and females interacts with not only conflict but also adolescents' attributions in the prediction of depressive symptoms. Additionally, parental expectations regarding expressions of traditional cultural values may differ across males and females and may contribute to experiences of conflict between Latino adolescents and their parents. Future studies should expand on the current findings by exploring whether these associations differ by gender across parent-adolescent dyads.

Furthermore, measurement of the constructs in this study (attributional style, depression, home and school variables) was done by self-report. Thus it is possible that some associations found among the variables are the result of common method variance. Future studies would benefit by the use of multi-informant or multimethod design. For example, in addition to self-reports of interpersonal relationships, it would be helpful to have reports from parents, teachers and peers about adolescents' relationships and social support. Additionally, academic achievement may be more accurately assessed using school records as opposed to adolescents' self-reported estimate of grade point average. Additionally, the small sample size limited our ability to examine differences in Latino sub-ethnicities. Future research should replicate this study in a larger sample and test whether these relationships exist across different ethnic groups. Finally, because our sample was drawn from the community, our findings may not generalize to clinical samples. It may be the case that the associations detected herein do not apply to Latino adolescents with a documented history of depression. Additional work is needed to

examine the unique influence of home and school factors on attributional style within clinical samples.

Despite these limitations, this study provides important information about the construct of attributional style in adolescence and its relation to depression in a population of Latino youth. Several implications result from our study. First, this study supports using a cognitive behavioral approach to treat depressive symptoms in Latino youth (Rossello, Bernal, Rivera-Medina, 2012). Interventions that teach youth strategies for coping with negative events may be especially useful. Moreover, interventions that target both cognitive and interpersonal strategies may be particularly effective (Rossello & Bernal, 1999). For example, interventions aimed at reducing discrimination and improving student relationships may be an important way of combating depressive symptoms. Furthermore, family-based therapies that have demonstrated promising results in treating depression in youth may be an additional treatment avenue to consider (Brent et al., 1997; Clarke et al., 1999, Diamond, Reis, Diamond, Siqueland, & Isaacs, 2002; Fristad et al., 1998). Our results suggest the potential value of including parents in preventive intervention efforts for depression. Targeted, evidenced based interventions aimed at reducing parent-adolescent conflict in particular may be beneficial. Research has found family-based therapy, such as the Culturally Informed and Flexible Family-Based Treatment for Adolescents (CIFFBTA; Santisteban, Mena, & McCabe, 2011) to be successful in reducing conflict between Latino adolescents and their parents (Santisteban, Mena, & Abalo, 2013). To date, the CIFFBTA has only been used to address substance use and parenting practices. However, the effectiveness of this treatment in improving

positive parenting practices and parental involvement within Latino families suggests that by reducing parent-adolescent conflict, this treatment has the potential to also reduce internalizing problems. Additional research on how Latino parents support their adolescents and under what conditions these youth seek out and utilize parental support could inform family-based approaches to the prevention of depression. It is our hope that better understanding of critical population-specific mechanisms of depressive symptoms will ultimately lead to more effective treatment approaches for Latino youth.

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APPENDIX A

TABLES

Table 1. Descriptive Statistics for Independent and Dependent Variables

Variable	<i>M</i>	<i>SD</i>
1. Age	14.06	1.33
2. Gender	0.45	0.50
3. Overall Attributional Style	2.59	0.97
4. Interpersonal Attributional Style	2.52	0.98
5. Achievement Attributional Style	2.71	1.05
6. Depressive Symptoms	0.30	0.32
7. Conflict and Criticism	2.11	0.76
8. Familism	7.28	1.52
9. Academic Performance	3.18	0.59
10. Peer Discrimination	5.88	6.07
11. Social Support	4.78	0.86

Note. *N* = 170

Table 2. Pearson Correlation Coefficients

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Age	--										
2. Gender	.20**	--									
3. Overall AS	-.02	-.06	--								
4. Interpersonal AS	-.04	-.07	.97**	--							
5. Achievement AS	-.01	-.05	.93**	.81**	--						
6. DS	.08	-.10	.38**	.41**	.28**	--					
7. CC	.08	-.18*	.37**	.38**	.31**	.31**	--				
8. Familism	-.23**	-.18*	-.17*	-.19*	-.11	-.23**	-.15	--			
9. AP	-.16*	-.28**	-.03	-.01	-.05	-.09	.01	.22**	--		
10. PD	.23**	.11	.41**	.38**	.40**	.34**	.21**	-.27**	-.11	--	
11. SS	-.16*	-.15	-.20**	-.22**	-.15	-.30**	-.13	.27**	.26**	-.31**	--

Note. AS = Attributional Style; DS = Depressive Symptoms; CC = Conflict and Criticism; AP = Academic Performance; PD = Peer Discrimination; SS = Social Support; $N = 170$; * $p < .05$; ** $p < .01$

Table 3. Hierarchical Regression Examining Home and School Setting Variables Predicting Overall Attributional Style

Predictor	Attributional Style				
	$R^2\Delta$	$F\Delta$	b	SE	β
Step 1	.00	0.32			
Age			-0.01	0.06	-.01
Gender			-0.11	0.15	-.06
Step 2	.27	12.30***			
Age			-0.11	0.5	-.14*
Gender			-0.08	0.14	-.04
CC			0.37	0.09	.29***
FAM			-0.04	0.05	-.06
AP			0.00	0.12	.00
PD			0.06	0.01	.35***
SS			-0.08	0.08	-.07
Step 3	.01	0.71			
Age			-0.10	0.05	-.14
Gender			-0.10	0.15	-.05
CC			0.34	0.09	.28***
FAM			-0.03	0.05	-.05
AP			-0.01	0.12	-.01
PD			0.06	0.01	.36***
SS			-0.06	0.09	-.06
CC x FAM			-0.08	0.06	-.09
SS x AP			0.04	0.13	.02
SS x PD			-0.01	0.01	-.03

Note. Statistics are noted for the final theoretical model. These reflect the ΔR^2 from each preceding indirect effects model. AS = Attributional Style; CC = Conflict and Criticism; FAM = Familism; AP = Academic Performance; PD = Peer Discrimination; SS = Social Support; $N = 170$; * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4. Hierarchical Regression Examining Home and School Setting Variables Predicting Achievement Attributional Style

Predictor	Achievement Attributional Style				
	$R^2\Delta$	$F\Delta$	b	SE	β
Step 1	.00	0.24			
Age			0.00	0.06	.00
Gender			-0.11	0.17	-.05
Step 2	.22	9.26***			
Age			-0.09	0.06	-.11
Gender			-0.09	0.16	-.04
CC			0.32	0.10	.23**
FAM			0.00	0.05	.00
AP			-0.07	0.13	-.04
PD			0.06	0.01	.37***
SS			-0.02	0.09	-.02
Step 3	.01	0.61			
Age			-0.09	0.06	-.12
Gender			-0.10	0.16	-.05
CC			0.33	0.10	.24**
FAM			0.01	0.05	.01
AP			-0.09	0.14	-.05
PD			0.07	0.01	.39***
SS			-0.01	0.10	-.01
CC x FAM			-0.09	0.07	-.09
SS x AP			0.01	0.15	.01
SS x PD			0.00	0.02	.02

Note. Statistics are noted for the final theoretical model. These reflect the ΔR^2 from each preceding indirect effects model. AS = Attributional Style; CC = Conflict and Criticism; FAM = Familism; AP = Academic Performance; PD = Peer Discrimination; SS = Social Support; $N = 170$; * $p < .05$, ** $p < .01$, *** $p < .001$

Table 5. Hierarchical Regression Examining Home and School Setting Variables Predicting Interpersonal Attributional Style

Predictor	Interpersonal Attributional Style				
	$R^2\Delta$	$F\Delta$	b	SE	β
Step 1	.00	0.49			
Age			-0.02	0.06	-.03
Gender			-0.13	0.16	-.07
Step 2	.28	12.44***			
Age			-0.12	0.05	-.16
Gender			-0.09	0.14	-.04
CC			0.39	0.09	.30***
FAM			-0.06	0.05	-.09
AP			0.05	0.12	.03
PD			0.05	0.01	.31***
SS			-0.11	0.08	-.10
Step 3	.01	0.86			
Age			-0.11	0.05	-.12*
Gender			-0.12	0.15	-.05
CC			0.37	0.09	.24***
FAM			-0.06	0.05	.01
AP			0.04	0.12	-.05
PD			0.05	0.01	.39***
SS			-0.10	0.09	-.01
CC x FAM			-0.07	0.06	-.09
SS x AP			0.05	0.13	.01
SS x PD			-0.01	0.01	.02

Note. Statistics are noted for the final theoretical model. These reflect the ΔR^2 from each preceding indirect effects model. AS = Attributional Style; CC = Conflict and Criticism; FAM = Familism; AP = Academic Performance; PD = Peer Discrimination; SS = Social Support; $N = 170$; * $p < .05$, ** $p < .01$, *** $p < .001$

Table 6. Hierarchical Regression Examining Interpersonal and Achievement Attributional Style Variables Predicting Adolescent Depressive Symptoms

Predictor	Depressive Symptoms				
	$R^2\Delta$	$F\Delta$	b	SE	β
Step 1	0.02	1.85			
Age			0.03	0.02	.11
Gender			-0.08	0.05	-.13
Step 2	0.17	17.53***			
Age			0.03	0.02	.12
Gender			-0.06	0.05	-.10
Interpersonal AS			0.17	0.04	.52***
Achievement AS			-0.04	0.04	-.14

Note. Statistics are noted for the final theoretical model. These reflect the ΔR^2 from each preceding indirect effects model. $N = 170$; * $p < .05$, ** $p < .01$, *** $p < .001$

Parent-Child Conflict and Parental Criticism

These following questions ask you to think about your relationship with your mother or female caregiver.

If your female caregiver is NOT your biological/adoptive mother, then what is her relation to you: _____

Please circle the appropriate number.

		1= never 2= seldom 3= sometimes or somewhat 4= often 5= always				
		Mother/Female caregiver				
1.	How often do you and this person disagree and quarrel with each other?	1	2	3	4	5
2.	How often do you and this person get mad at or get in fights with each other?	1	2	3	4	5
3.	How often do you and this person argue with each other?	1	2	3	4	5
4.	How often does this person point out your faults or put you down?	1	2	3	4	5
5.	How often does this person criticize you?	1	2	3	4	5
6.	How often does this person say mean or harsh things to you?	1	2	3	4	5

Way Discrimination Scale

Now we would like you to please think about your experiences with OTHER STUDENTS in SCHOOL. Please circle the number of the response that best describes how often these things have happened to you. Sometimes the answer will be the same but other times they will be different.

		1=never 2=rarely 3=sometimes 4=often 5=all the time			
How often do you feel that:		OTHER STUDENTS in SCHOOL			
1.	Treat you like a <u>troublemaker</u> because of your race or ethnicity?	1 5	2	3	4
2.	Think that you <u>won't know the answer in class</u> because of your race or ethnicity?	1 5	2	3	4
3.	<u>Feel threatened by you</u> because of your race or ethnicity?	1 5	2	3	4
4.	<u>Make fun of you</u> because of your race or ethnicity?	1 5	2	3	4
5.	Expect that you <u>will get good grades</u> because of your race or ethnicity?	1 5	2	3	4
6.	Treat you with <u>less respect</u> because of your race or ethnicity?	1 5	2	3	4
7.	Are <u>afraid of you</u> because of your race or ethnicity?	1 5	2	3	4
8.	Treat you like you're <u>NOT as good as them</u> because of your race or ethnicity?	1 5	2	3	4
9.	Are <u>nervous around you</u> because of your race or ethnicity?	1 5	2	3	4
10.	<u>Pick on you</u> because of your race or ethnicity?	1 5	2	3	4
11.	Expect that you will get <u>BAD grades</u> because of your race or ethnicity?	1 5	2	3	4
12.	<u>Don't listen to your thoughts on things</u> because of your race or ethnicity?	1 5	2	3	4
13.	Treat you like you're <u>SMART</u> because of your race or ethnicity?	1 5	2	3	4
14.	Are <u>suspicious of you</u> because of your race or ethnicity?	1 5	2	3	4
15.	<u>Call you names</u> because of your race or ethnicity?	1 5	2	3	4
16.	Treat you <u>unfairly</u> because of your race or ethnicity?	1 5	2	3	4
17.	<u>Insult you</u> because of your race or ethnicity?	1 5	2	3	4
18.	Are <u>uncomfortable around you</u> because of your race or ethnicity?	1 5	2	3	4
19.	<u>Harass you</u> because of your race or ethnicity?	1	2	3	4

		5			
20.	Treat you like you're <u>NOT smart</u> because of your race or ethnicity?	1	2	3	4
		5			
21.	Think that you will do <u>WELL in school</u> because of your race or ethnicity?	1	2	3	4
		5			

Mood and Feelings Questionnaire

This form is about how you might have been feeling or acting recently.

For each question, please circle how much you have felt or acted this way *in the past two weeks*.

		Not True	Sometimes True	Mostly True
1.	I felt miserable or unhappy	0	1	2
2.	I didn't enjoy anything at all	0	1	2
3.	I was less hungry than usual	0	1	2
4.	I ate more than usual	0	1	2
5.	I felt so tired I just sat around and did nothing	0	1	2
6.	I was moving and walking more slowly than usual	0	1	2
7.	I was very restless	0	1	2
8.	I felt I was no good anymore	0	1	2
9.	I blamed myself for things that weren't my fault	0	1	2
10.	It was hard for me to make up my mind	0	1	2
11.	I felt grumpy and cross with my parents	0	1	2
12.	I felt like talking less than usual	0	1	2
13.	I was talking more slowly than usual	0	1	2
14.	I cried a lot	0	1	2
15.	I thought there was nothing good for me in the future	0	1	2
16.	I thought that life wasn't worth living	0	1	2
17.	I thought about death or dying	0	1	2
18.	I thought my family would be better off without me	0	1	2
19.	I thought about killing myself	0	1	2
20.	I didn't want to see my friends	0	1	2
21.	I found it hard to think properly or concentrate	0	1	2
22.	I thought bad things would happen to me	0	1	2
23.	I hated myself	0	1	2
24.	I felt I was a bad person	0	1	2
25.	I thought I looked ugly	0	1	2
26.	I worried about aches and pains	0	1	2
27.	I felt lonely	0	1	2
28.	I thought nobody really loved me	0	1	2
29.	I didn't have any fun at school	0	1	2
30.	I thought I could never be as good as other kids	0	1	2
31.	I did everything wrong	0	1	2
32.	I didn't sleep as well as I usually sleep	0	1	2

33.	I slept a lot more than usual	0	1	2
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Child and Adolescent Social Support Scale

The following sentences relate to some form of support or help that you might get from a teacher or a classmate at school. Read each sentence carefully and respond honestly, rating how often you receive that kind of support. There are no right or wrong answers.

		Never					Always	
		1	2	3	4	5	6	
1.	My classmates ask me to join activities.	1	2	3	4	5	6	
2.	My classmates treat me nicely.	1	2	3	4	5	6	
3.	My classmates spend time doing things with me.	1	2	3	4	5	6	
4.	My classmates help me with projects in class.	1	2	3	4	5	6	
5.	My classmates give me ideas when I don't know what to do.	1	2	3	4	5	6	
6.	My classmates like most of my ideas and opinions	1	2	3	4	5	6	
7.	My classmates pay attention to me.	1	2	3	4	5	6	
8.	My classmates give me good advice.	1	2	3	4	5	6	
9.	My classmates notice when I have worked hard.	1	2	3	4	5	6	
10.	My classmates nicely tell me when I make mistakes.	1	2	3	4	5	6	
11.	My classmates give me information so I can learn new things.	1	2	3	4	5	6	
12.	My classmates tell me I did a good job when I've done something well.	1	2	3	4	5	6	
13.	My parents show they are proud of me.	1	2	3	4	5	6	
14.	My parents understand me.	1	2	3	4	5	6	
15.	My parents listen to me when I need to talk.	1	2	3	4	5	6	
16.	My parents make suggestions when I don't know what to do.	1	2	3	4	5	6	
17.	My parents give me good advice.	1	2	3	4	5	6	
18.	My parents help me solve problems by giving me information.	1	2	3	4	5	6	
19.	My parents tell me I did a good job when I do something well.	1	2	3	4	5	6	
20.	My parents nicely tell me when I make mistakes.	1	2	3	4	5	6	
21.	My parents reward me when I've done something well.	1	2	3	4	5	6	
22.	My parents help me practice my activities.	1	2	3	4	5	6	
23.	My parents take time to help me decide things.	1	2	3	4	5	6	
24.	My parents get me many of the things I need.	1	2	3	4	5	6	
25.	My teacher(s) cares about me.	1	2	3	4	5	6	
26.	My teacher(s) treats me fairly.	1	2	3	4	5	6	
27.	My teacher(s) makes it OK to ask questions.	1	2	3	4	5	6	
28.	My teacher(s) explains things that I don't understand.	1	2	3	4	5	6	
29.	My teachers(s) shows me how to do things.	1	2	3	4	5	6	
30.	My teachers(s) helps me solve problems by giving me information.	1	2	3	4	5	6	
31.	My teacher(s) tells me I did a good job when I've done something well.	1	2	3	4	5	6	
32.	My teacher(s) nicely tells me when I make mistakes.	1	2	3	4	5	6	
33.	My teacher(s) tells me how well I do on tasks.	1	2	3	4	5	6	
34.	My teacher(s) makes sure I have what I need for school.	1	2	3	4	5	6	

35.	My teacher(s) takes time to help me learn to do something well.	1	2	3	4	5	6
36.	My teacher(s) spend time with me when I need help.	1	2	3	4	5	6

Adolescent Cognitive Style Questionnaire

Please try to imagine yourself clearly in each of the situations that follow. Place yourself in each situation and decide what you think would have caused the event if it actually happened to you. We want you to choose only one cause for the event – the main cause if the event actually happened to you. For each situation, you will write down this cause in the blank at the top of the page. Then we will ask you some questions about what it should mean to you if the situation actually happened to you.

It is important to remember that there are no right or wrong answers to the questions. The important thing is to answer the questions how you would think and feel if the situations actually were occurring in your life.

1. You want a boyfriend/girlfriend but you don't have one.

a. Write down why you think you don't have a boyfriend or girlfriend.

b. Do you not have a boyfriend/girlfriend because of something about you or because of something else? (Circle one number).

Totally caused by something else	1	2	3	4	5	6	7	Totally caused by something about me
--	---	---	---	---	---	---	---	--

c. Do you think the reason you don't have a boyfriend/girlfriend will also cause you to not have boyfriend/girlfriend in the future? (Circle one number.)

Will never again cause me not to have a boyfriend/ girlfriend	1	2	3	4	5	6	7	Will also cause me not to have a boyfriend/ girlfriend in the future
---	---	---	---	---	---	---	---	--

d. Do you think the reason for not having a boyfriend/girlfriend will also cause problems in other parts of your life? (Circle one number.)

Will only cause problems in my love life	1	2	3	4	5	6	7	Will cause problems in all areas of my life
--	---	---	---	---	---	---	---	---

e. Do you think other bad things will happen to you because you don't have a boyfriend/girlfriend? (Circle one number.)

Nothing bad will happen	1	2	3	4	5	6	7	Very bad things will happen
----------------------------	---	---	---	---	---	---	---	-----------------------------------

- f. Do you think there is something wrong with you because you don't have a boyfriend/girlfriend? (Circle one number.)

Doesn't mean anything is wrong with me

1 2 3 4 5 6 7

Definitely means something is wrong with me

2. You get a bad report card for the semester.

- a. Write down why you think you got a bad report card.

- b. Did you get a bad report card because of something about you or because of something else? (Circle one number).

Totally caused by something else

1 2 3 4 5 6 7

Totally caused by something about me

- c. Do you think the reason you got a bad report card will also cause you to get bad report cards in the future? (Circle one number.)

Will never again cause me to get bad report cards

1 2 3 4 5 6 7

Will also cause me to get bad report cards in the future

- d. Do you think the reason you got a bad report card will also cause problems in other parts of your life? (Circle one number.)

Will only cause problems in my report cards

1 2 3 4 5 6 7

Will cause problems in all areas of my life

- e. Do you think other bad things will happen to you because you got a bad report card? (Circle one number.)

Nothing bad will happen

1 2 3 4 5 6 7

Very bad things will happen

- f. Do you think there is something wrong with you because you got a bad report card? (Circle one number.)

Doesn't mean anything is wrong with me

1 2 3 4 5 6 7

Definitely means something is wrong with me

3. Your girlfriend/boyfriend breaks up with you, but you still want to stay together.

a. Write down why your girlfriend/boyfriend break up with you

b. Did they break up with you because of something about you or because of something else? (Circle one number).

Totally caused
by something
else

1 2 3 4 5 6 7

Totally caused
by something
about me

c. Do you think the reason they broke up with you will also cause others to break up with you again in the future? (Circle one number.)

Will never again cause
others to break up with
me

1 2 3 4 5 6 7

Will also cause
others to break
up with me

d. Do you think the reason they broke up with you will also cause problems in other parts of your life? (Circle one number.)

Will only cause
problems in my
love life

1 2 3 4 5 6 7

Will cause
problems in all
areas of my life

e. Do you think other bad things will happen to you because they broke up with you? (Circle one number.)

Nothing bad will
happen

1 2 3 4 5 6 7

Very bad
things will
happen

f. Do you think there is something wrong with you because they broke up with you? (Circle one number.)

Doesn't mean
anything is
wrong with me

1 2 3 4 5 6 7

Definitely means
something is wrong
with me

4. You get in a big fight with your parents.

a. Write down why you think you got in a big fight with your parents.

b. Did you get in a big fight with your parents because of something about you or because of something else? (Circle one number).

	Totally caused								Totally caused
c.	By something else	1	2	3	4	5	6	7	by something about me
	Will never again cause me to get in fights with my parents	1	2	3	4	5	6	7	Will also cause me to get in fights with my parents in the future

you think the reason you got in a big fight with your parents will also cause you to get in fights with your parents in the future? (Circle one number.)

d. Do you think the reason you got in a big fight with your parents will also cause problems in other parts of your life? (Circle one number.)

	Will only cause problems with my parents	1	2	3	4	5	6	7	Will cause problems in all areas of my life
--	--	---	---	---	---	---	---	---	---

e. Do you think other bad things will happen to you because you got a bad report card? (Circle one number.)

	Nothing bad will happen	1	2	3	4	5	6	7	Very bad things will happen
--	-------------------------	---	---	---	---	---	---	---	-----------------------------

f. Do you think there is something wrong with you because you got a bad report card? (Circle one number.)

	Doesn't mean anything is wrong with me	1	2	3	4	5	6	7	Definitely means something is wrong with me
--	--	---	---	---	---	---	---	---	---

5. You don't get chosen for an extracurricular activity (such as sports team, club, play) that you want to be a part of.

a. Write down why you think you were not chosen for the extracurricular activity.

- b. Did you not get chosen for the activity parents because of something about you or because of something else? (Circle one number).

Totally caused
by something
else

1 2 3 4 5 6 7

Totally caused
by something
about me

- c. Do you think the reason you did not get chosen for the activity will also cause you to not get chosen for activities in the future? (Circle one number.)

Will never again
cause me to not get
chosen for activities

1 2 3 4 5 6 7

Will also cause me to not
get chosen for future
activities

- d. Do you think the reason you didn't get chosen for the activity will cause problems in other parts of your life? (Circle one number.)

Will only cause
problems with
my activities

1 2 3 4 5 6 7

Will cause
problems in all
areas of my life

- e. Do you think other bad things will happen to you because you did not get chosen for the activity? (Circle one number.)

Nothing bad will
happen

1 2 3 4 5 6 7

Very bad
things will
happen

- f. Do you think there is something wrong with you because you did not get chosen for the activity? (Circle one number.)

Doesn't mean
anything is
wrong with me

1 2 3 4 5 6 7

Definitely means
something is wrong
with me

6. You didn't make the honor roll but you wanted to.

- a. Write down why you didn't make the honor roll.

- b. Did you not make the honor roll because of something about you or because of something else? (Circle one number).

Totally caused
by something
else

1 2 3 4 5 6 7

Totally caused
by something
about me

- c. Do you think the reason you did not make the honor roll will also cause you to not make the honor roll in the future? (Circle one number.)

Will never again
cause me to not
make the honor roll

1 2 3 4 5 6 7

Will also cause me to not
get the honor roll in the
future

- d. Do you think the reason you didn't make the honor roll will cause problems in other parts of your life? (Circle one number.)

Will only cause
problems with
my academics

1 2 3 4 5 6 7

Will cause
problems in all
areas of my life

- e. Do you think other bad things will happen to you because you did not make the honor roll? (Circle one number.)

- f. Nothing bad will
happen

1 2 3 4 5 6 7

Very bad
things will
happen

o you think there is something wrong with you because you did not make the honor roll? (Circle one number.)

Doesn't mean
anything is
wrong with me

1 2 3 4 5 6 7

Definitely means
something is wrong
with me

7. You want to go to a big party, but nobody invites you.

- a. Write down why you think you weren't invited to the party.

- b. Were you not invited because of something about you or because of something else? (Circle one number).

Totally caused
by something
else

1 2 3 4 5 6 7

Totally caused
by something
about me

- c. Do you think the reason you weren't invited to the party will also cause you to not be invited to parties in the future? (Circle one number.)

Will never again
cause me to not get
invited to parties

1 2 3 4 5 6 7

Will also cause me
to not get invited
to parties in the
future

- d. Do you think the reason you weren't invited to the party will cause problems in other parts of your life? (Circle one number.)

Will only cause problems with my social life

1 2 3 4 5 6 7

Will cause problems in all areas of my life

- e. Do you think other bad things will happen to you because you weren't invited to the party? (Circle one number.)

Nothing bad will happen

1 2 3 4 5 6 7

Very bad things will happen

- f. Do you think there is something wrong with you because you weren't invited to the party? (Circle one number.)

Doesn't mean anything is wrong with me

1 2 3 4 5 6 7

Definitely means something is wrong with me

8. Someone says something bad about how you look.

- a. Write down why you think they said something bad about your looks.

- b. Did someone say something bad about your looks because of something about you or because of something else? (Circle one number).

Totally caused by something else

1 2 3 4 5 6 7

Totally caused by something about me

- c. Do you think the reason someone said something bad about your looks will also cause people to say bad things about your looks in the future? (Circle one number.)

Will never again cause people to say bad things about my looks

1 2 3 4 5 6 7

Will also cause people to say bad things about my looks in the future

- d. Do you think the reason someone said something bad about your looks will cause problems in other parts of your life? (Circle one number.)

Will only cause problems with what people say about my looks

1 2 3 4 5 6 7

Will cause problems in all areas of my life

- e. Do you think other bad things will happen to you because someone said something bad about your looks? (Circle one number.)

Nothing bad will
happen

1 2 3 4 5 6 7

Very bad
things will
happen

- f. Do you think there is something wrong with you because someone said something bad about your looks? (Circle one number.)

Doesn't mean
anything is
wrong with me

1 2 3 4 5 6 7

Definitely means
something is wrong
with me