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LIFE STRESS, COPING, AND SOCIAL SUPPORT IN ADOLESCENTS:
CULTURAL AND ETHNIC DIFFERENCES

DISSERTATION

Presented to the Graduate Council of the
University of North Texas in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Hazel M. Prelow, B.A., M.S.

Denton, Texas

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Although much research has examined the impact of life stress and the subsequent development of health symptoms, most of this research has been done with White middle class adults. Similar to the adult research, life stress research with children and adolescents has focused on White middle class individuals. The present study expands the knowledge about the stress process in ethnic/racial adolescents while controlling for the effects of SES. A sample population consisting of 103 Black students, 129 Hispanic students, and 105 White students was compared with respect to stressful events experienced, coping strategies, and social support. Students from a wide range of socioeconomic backgrounds were included within each ethnic/racial group studied. After experimentally and statistically controlling for the effects of socioeconomic status, significant differences were observed. Black and Hispanic students reported receiving higher levels of Enacted Social Support (actual support) than White students. Contrary to what has been previously suggested, Black and Hispanic students reported having experienced fewer stressful life events than White students.

Other ethnic/racial group differences that emerged included differences in ways in which specific patterns of moderator variables served to enhance the relationship between life stress and psychological symptomatology.

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CHAPTER I

INTRODUCTION

There have been numerous studies in which the association between stressful life events and subsequent development of physical and psychological symptoms (c.f., Cohen, 1988; Dohrenwend & Dohrenwend, 1974, 1984) has been investigated. Most of this research has concentrated on White, middle-class adults. Research on adolescents, like the research on children, has lagged behind the adult research. Most research on adolescents has focused on chronic stressors or risk-factors such as parental psychopathology, parental chronic illness, family discord, and low socioeconomic status (Jensen, Bloedau, Degroot, Ussery, & Davis, 1990; Rutter & Quinton, 1977; Werner, 1986, 1989). Research examining child and adolescent stressful life events and health symptoms has been almost exclusively conducted on majority culture adolescents (Cohen, Burt, & Bjorck, 1987; Dise-Lewis, 1988; Patterson & McCubbin, 1987). Studies that included sufficient numbers of ethnic minority adolescents in order to make meaningful comparisons between majority and minority groups have been almost nonexistent.

Findings from a few studies suggest that ethnicity and race may have an effect on life events, coping, and social support of minority and majority adolescents (Jung & Khalsa,

1989; Komaroff, Masuda, & Holmes, 1968; Newcomb, Huba, & Bentler, 1986; Wyatt, 1977). Minority group participants in these studies were primarily of lower socioeconomic status, while majority group participants were primarily middle-class, potentially confounding ethnicity/race and socioeconomic status. In the present study stressful life events, coping strategies, social support, and health symptomatology were compared across groups of Black, Hispanic, and White adolescents after both experimentally and statistically controlling for socioeconomic status.

For purposes of this study the term minority individual includes the following groups: Black, Hispanic, Native American, and Asian individuals. In addition, the term refers to persons of mixed ethnic/racial backgrounds. Although in some instances these groups may constitute an actual numerical majority, historically they have been singled out from others in society and exposed to differential and unequal treatment because of physical or cultural characteristics (Wirth, 1945).

Life Stress

In recent years, life stress has been viewed as a transaction between a person and his or her environment. This view takes into account how an individual perceives stages of the transaction, i.e., whether the event represents a threat, the desirability of the event, an individual's appraisal of personal resources, the individual's ability to

cope with the event, and the response to the stressful event (Dohrewend & Dohrewend, 1973; Lazarus & Folkman, 1984).

A consistent finding in the adult literature is that stressful events are modestly correlated to both physical and mental health symptoms (i.e., distress) (Rabkin & Struening, 1976; Thoits, 1983). Despite this consistent finding, researchers have only been able to explain about 10% of the variance in physical and mental health as being due to the impact of life stressors (Johnson, 1986). These findings suggest that there may be other factors that contribute to the life stress process.

A possible explanation for the low correlations of life stress with health symptoms ($r_s \approx .3$) is that many studies have used measures of life stress which included both positive and negative events. The assumption that all major life events, both positive and negative, are stressful has been contradicted. Negative life events or undesirable events have consistently been more strongly correlated with health problems than positive events for both adults (Vinokur & Selzer, 1975; Zautra & Reich, 1983) and for children and adolescents (Swearingen & Cohen, 1985).

Another possible explanation for the low correlations between measures of life stress and physical/psychological health outcome symptoms measures may be the exclusion of variables in research studies that either moderate or mediate the effects of life stress. Within the adult literature, it

has been a consistent finding that mere exposure to stressful life events does not always result in a poor adaptational outcome. Some individuals seem to be able withstand an inordinate number of stressors without developing symptoms, whereas other individuals succumb to disease after being exposed to relatively few stressful situations. Likewise, in the child literature, it is unusual for more than half the children exposed to many stressors to develop health or physical symptoms (Rutter, 1985). The impact of stressful life events may be attenuated by protective factors. Three protective factor variables have been shown to either mediate or moderate the stress process (Dohrenwend & Dohrenwend, 1974). These variables are social support, coping, and socioeconomic status.

Social Support

Cobb (1976) defined social support as information leading an individual to believe that he or she is cared for and loved, esteemed, and a member of a social network of mutual obligation. Within the social support literature, social support has been characterized as both an assistance resource and as a coping strategy (Dohrenwend & Dohrenwend, 1984; Stone, Helder, & Schneider, 1988). The former refers to enacted (actual) support or perceived available support, whereas the latter refers to effortful behaviors involved in seeking support. There have been several models that have been offered to explain beneficial effects of social support.

Three of the important models are the Stress Buffering Model, the Main or Direct Effects Model, and the Support Mobilization Model. A fourth model, the conjunctive moderator model has received the least research interest.

The stress buffering model (Cohen & Wills, 1985) posits that individuals undergoing high levels of life stress are protected or buffered from the full brunt of the impact of these events by social support. According to Cohen and Wills (1985), "A pure buffering effect is when mean symptomatology level for low- and high-support subjects is not significantly different under low stress (but quite different under high stress); it indicates that support is relevant for subjects under stress" (p.319). According to the stress buffering model, social support may exert its beneficial influence at two points. First, social support may prevent the appraisal of an event as stressful. Secondly, social support may intervene between the experience of stress and the development of health symptomatology (Cohen & Wills, 1985). There have been numerous adult studies which have provided support for the buffering effects of social support (c.f., Husaini, Neff, Newbrough, & Moore, 1982; Pearelin, Meneghan, Lieberman, & Mullan, 1981; Surtees, 1980). Support for the stress buffering effect of social support has also been found in the child literature (Sandler, 1980; Sandler & Block, 1979; Tyerman & Humphrey, 1983; Wills, 1986; Wertlieb, Weigel, & Feldstein, 1987).

An alternative to the stress buffering model is the main-effects model. This model assumes that social support has a beneficial effect on health even when the individual is not experiencing stress. According to this model, the beneficial effects of social support occur because the individual is a part of a social network which provides positive experiences and helps the individual to avoid negative experiences (Cohen & Wills, 1985). An important difference between the main-effects model and the buffering model is that the main-effects model does not predict a statistical interaction at different levels of stress and social support. Bell, Leroy, and Stephenson (1982) studied depression and social support in 2,029 community residents using support measures that assessed structural support (i.e., marital status, relatives and friends nearby, or church attendance). Their results were consistent with the main-effects model but not the stress buffering model even though they had sufficient numbers, and thus sufficient power, to detect even a modest amount of interaction between stress and support.

The effective support mobilization model (Barrera, 1986) differs from the previously discussed models in that it predicts a positive relationship between life stress and social support. Some researchers have viewed this positive correlation between life stress social and support as evidence of the confounding of social support with life

stress (Cohen & Wills, 1985). In response to critics, Barrera (1988) stated, "This relationship is viewed as surprising, problematic, or confusing because a different model of stress-support relationship has been adopted as the 'correct' representation" (p.424). According to the model, when an individual experiences a stressful situation his or her social network responds and provides actual support. The positive association between life stress and social support is interpreted as evidence that stressful events trigger mobilization of social support (Barrera, 1988). The support mobilization model has not been popular and there has been little research conducted investigating this alternative model. However, evidence from Anehensel and Frerichs (1982) supports this model. In their longitudinal study they found a positive relationship between life stress and Enacted Social Support (actual support) and between life stress and social integration (number of close friends and relatives), and they found a negative link between life stress and depression.

The final model to be discussed is the conjunctive moderator model. Smith and his colleagues (Smith, Smoll, & Ptacek, 1990) defined conjunctive moderation as the co-occurrence of a specific combination of two or more moderator variables that serve to enhance the relationship between a predictor variable (i.e., stress) and a criterion (i.e., depression). In statistical terms, a conjunctive moderator

effect is a three-way interaction. A possible explanation of why conjunctive moderation has received less research interest may be that in order to detect three-way interactions either very large samples or extremely powerful statistical techniques are needed (Aiken & West, 1991). Despite these shortcomings, Smith (Smith et al., 1990) has advocated that it may be worthwhile to test for specific conjunctive moderator effects because these effects may only occur within small vulnerable sub-samples of the population.

There is some support for the conjunctive moderation model. Sandler and Lakey (1982) found a stress buffering effect for individuals classified as having an internal locus of control and high receipt of social support. Additionally, Smith and his colleagues (Smith et al., 1990) found a conjunctive moderation effect in their study of athletes. They found that the effects of stress were increased for those individual having low social support and low coping skills.

Coping

Whereas social resources are moderators, coping exerts its protective influence through mediation. Early in life stress and coping research, studies were conducted with adults or college age young adults. The early child/adolescent coping research, similar to the child stress literature, was initially confined to research on invulnerable or resilient children who, although they had

been exposed to chronic stressors such as disadvantaged environments, were relatively free of psychological distress (Compas, 1987). Like the adult research, most of the child research has been influenced by Lazarus and Folkman's (1984) transactional model. This model emphasizes two main coping strategies, problem-focused coping and emotion-focused coping. Problem-focused coping refers to efforts the individual makes to change the stressful situation. It includes such strategies as problem solving, information seeking, decision making, and interpersonal negotiation. In contrast, emotion-focused coping refers to efforts the individual makes to change his or her emotions relative to the stressor. It includes such strategies as cognitive restructuring (situation redefinition) and distress minimization (Lazarus & Folkman, 1984).

Similar to the adult literature (e.g., Stone, Helder, & Schneider, 1988), the existing child/adolescent research has shown a consistent negative association between problem-focused coping and psychological distress (Compas, Malcarne, & Fondacaro, 1988; Patterson & McCubbin, 1987; Wills; 1986). Wills (1986) found significant interactions between problem-focused coping, which he called behavioral coping, and stress. Problem-focused coping was inversely related to substance use at high levels of stress and this relationship was reduced at lower levels of stress. Similar to Wills' findings, Compas and his colleagues found that problem-

focused coping was negatively related to emotional/behavioral problems in older children and adolescents (Compas et al., 1988).

Emotion-focused coping involves managing one's emotions relative to a stressor. This form of coping has also been termed cognitive restructuring, cognitive coping, and situation redefinition (Brown, O'Keeffe, Sanders, & Baker, 1986; Wills, 1985, 1986). Brown conducted a study of cognitive coping in children and adolescents ages 8 to 18. Subjects were asked to respond to a scenario in which they were to be given a medical injection and also a scenario in which they were about to give a report in front of a class. Participants indicated what types of thoughts might be going through their heads if this were really happening. Subjects who reported more cognitive coping strategies such as, positive self-talk, scored lower on measures of anxiety (Brown et al., 1986). Wills (1986) found that cognitive coping had a similar outcome. In his study, adolescents who reported using higher amounts of cognitive coping strategies reported less substance use. Contrary to these findings, Compas and his colleagues found that emotion-focused coping was positively related to emotional/behavioral problems in children and adolescents (Compas et al., 1988).

Social support is considered a coping strategy when it involves actually seeking out others for support (Stone et al., 1988). This differs from social support as a resource.

Although seeking social support has been negatively associated with symptomatology in the adult literature, this has not been the case with some forms of social support for adolescents. While seeking support from adults has been negatively associated with symptomatology, seeking support from peers has been associated with psychological distress (Patterson & McCubbin, 1987; Wills, 1986). Wills (1986) found stress buffering effects for adolescents who sought adult support. This study is unique in that it is one of the few studies that included large number of ethnic minorities and majority adolescents. The sample of two cohorts of 675 and 901 subjects was: 44% and 48% White, 16% and 18% Black, 20% and 26% Hispanic, and 8% and 11% Asian American. Wills found that adult support buffered adolescents from substance use whereas peer support was associated with substance use. Similar to Wills' (1986) findings, Patterson and McCubbin (1987) also found that socializing with friends was associated with adolescent substance use.

Sex and age differences in coping. Findings from several child and adolescent studies suggest that there may be age and sex differences in coping strategies utilized. Some researchers used the approach or avoidance conceptualization of coping. Approach coping refers to activities oriented toward a stressor. Examples of approach coping are seeking support from family and thinking of solutions for the problem. Avoidance coping refers to

activities oriented away from the stressor (Roth & Cohen 1986). Examples of avoidance coping are putting the problem out of one's mind or taking it out on someone else. Griffith and Dubow (1993) investigated developmental trends in adolescents' coping. They found that for family and school stressful events, approach coping increased relative to avoidance coping from the 7th grade to 12th grade. They concluded that their findings reflected changes in cognitive development. Although there was no interaction between coping and gender, they reported a gender main-effect with females using more of both types of strategies (approach and avoidance) for family and peer stressors than males used (Griffith & Dubow, 1993). Similar to Griffith and Dubow's (1993) findings, Brown and colleagues (Brown et al., 1986) found that use of cognitive coping strategies increased with age. Subjects in their study ranged in age from 8 to 18 (Brown et al., 1986). They did not find any sex differences in coping strategies used. Sex differences in coping were found in Patterson and McCubbin's (1987) study. Tenth, 11th and 12th grade females were higher than males on the following four coping patterns: developing social support, solving family problems, investing in family friends, and developing self-reliance.

Socioeconomic and Minority Status

A consistent finding in the stress literature has been that there is an inverse relationship between socioeconomic

status (SES) and psychological symptomatology (Carr & Krause, 1978; Eaton & Kessler, 1981; Frerichs, Aneshensel, & Clark, 1981; Myers, Lindenthal, & Pepper, 1973; Warheit, Holzer, & Schwab, 1973). Although there have been consistent findings that there is a relationship between SES and health symptomatology, findings concerning the relationship between ethnic/racial minority status and psychological functioning have been inconsistent. Notwithstanding ethnic/racial minority status, individuals of lower SES tend to experience more health symptomatology than upper SES individuals. B. S. Dohrenwend's (1973) differential exposure hypothesis has been used to explain the higher incidence of health symptomatology in lower SES individuals. According to this hypothesis, lower SES individuals have more frequent exposure to stressful life events than middle and upper SES individuals, which precipitates higher rates of health symptomatology in the lower SES individuals.

Since ethnic/racial minority individuals are disproportionately represented at lower SES levels, the higher incidence of health symptoms found in minorities has for the most part been explained as being due to socioeconomic status differences rather than being due to minority status. In several studies, once social status was controlled, the relationship between minority status and symptomatology was weakened or no longer significant (Carr &

Krause, 1978; Frerichs et al., 1981, Warheit, Holzer, & Schwab, 1973).

Kessler and Neighbors (1986) posited that the reason other researchers had failed to detect joint effect for race and socioeconomic status was because they had used an additive model to test their hypothesis about race and socioeconomic status. In the additive model, the researcher tests for main-effects for race and socioeconomic status without testing for an interaction or joint effects of race and socioeconomic status. Using the data from eight epidemiological surveys conducted between 1957 and 1976, they found an interactive effect of race and socioeconomic status on psychological symptomatology. They concluded that Blacks were more distressed than Whites at low SES levels (Kessler & Neighbors, 1986). Ulbrich, Warheit, and Zimmerman (1989) replicated the finding that race and SES have an interactive effect at lower SES levels. In summary, it appears that socioeconomic status serves as a moderator of stressful life events. Those individuals of higher socioeconomic status, irrespective of minority or majority status, appear to be buffered from the effects of stressful life events. Minority individuals at lower SES levels seem to be the most vulnerable to distress.

Now that the moderating and mediating effects of social resources, coping, and SES have been explained, these variables will be utilized to examine cultural differences in

the stress process in Slavin's (Slavin, Rainer, McCreary, & Gowda, 1991) multicultural expansion of the Lazarus and Folkman (1984) life stress model.

Multicultural Model of Stress Process

Lazarus and Folkman (1984) have accounted for the individual variations in response to stress by their Ways of Coping model. Although the Lazarus and Folkman model has to some extent accounted for individual differences in response to stress, researchers have not used the model to account for differences associated with minority status. The original Lazarus and Folkman model included five components: (a) the occurrence of a potentially stressful event, (b) the primary appraisal of the event, (c) secondary appraisal of the event, (d) coping efforts, and (e) health outcomes. Slavin and her colleagues (Slavin et al., 1991) have proposed an expansion of the Lazarus and Folkman (1984) stress process model which includes variables that are relevant to ethnic/racial minorities at each stage.

Occurrence of event. In the first stage, like in the Lazarus and Folkman model, a minority individual experiences an event. According to Slavin's model (Slavin et al., 1991), events related to minority status, discrimination, socioeconomic status and specific subgroup customs should be considered in the occurrence of event stage.

Most life stress inventories for both adults and adolescents were based on items generated by majority

populations. These measures may not be valid for minority individuals because they do not include a representative sample of life events faced by minority individuals (Slavin et al., 1991). When minority individuals were asked to generate events that they had experienced as stressful, they generated some items not found on majority life stress inventories (Cervantes, Padilla, & de Snyder, 1991; Mosley & Lex, 1990). Minority urban youth described day-to-day events such as feeling that they were being "picked on" by school personnel, having problems getting along with teachers, and feeling a need to carry weapons for protection as being stressful (Mosley & Lex, 1990). Latin American immigrants and Hispanic Americans born in the United States reported that events associated with discrimination and acculturation were stressful (Cervantes et al., 1991).

Primary appraisal. Membership in a minority group may affect primary appraisal of the event (Slavin et al, 1991). In this stage of the model the event is appraised in terms of the cultural/family definition of the event and the degree of fit between the event and cultural frame for understanding the event. Minority individuals may appraise relatively benign events as stressful because the event may have historically meant discrimination in their culture. For example, if a young Black woman were to enter an upscale department store and be immediately asked "Can I help you?" by a salesperson, the young woman might appraise this event

as stressful rather than benign because historically this type of attention could have meant that she didn't belong there or that she was considered a security risk.

Conversely, there is some evidence that events that majority adults find more stressful may be appraised as less stressful by minority adults. Ulbrich and colleagues (Ulbrich et al., 1989) found that lower socioeconomic status Blacks were less vulnerable to the impact of economic problems than Whites of the same socioeconomic status group, but more vulnerable to non-economic undesirable events than Whites of the same socioeconomic group. Although the researchers did not have the subjects rate the impact of the life event, the respondents categorized events as desirable or undesirable on the basis the culturally positive or negative evaluation.

An event may also be appraised as stressful because it is inconsistent with cultural values. For example, traditional Hispanic parents may find it extremely stressful if their adult daughter wanted to move out of the family home prior to marriage to live on her own. Although this is a relatively frequent event in majority culture, it is not sanctioned in traditional Hispanic culture.

Secondary appraisal. In the secondary appraisal stage the minority individual asks the question, "What can be done?" According to Slavin's expanded model (Slavin et al., 1991), cultural factors may effect the minority individual's beliefs about self-efficacy to deal with the stressful event

and also may influence which institutions or individuals are culturally sanctioned to provide support.

For minority individuals, the answer to the question, "What can be done?" may entail seeking help from informal sources. Neighbors, Jackson, Bowman, and Gurin (1983), in their study of stress and coping strategies of 2,107 Blacks, found that informal support from sources that included family members, neighbors, and co-workers, rather than support from formal sources such as social services, mental health professionals, medical clinics, and emergency rooms were extensively used to cope with problems. While there have been few studies of stress and social support that have included sufficient numbers of minorities to make comparisons, there are indications that there may be racial and ethnic differences in the perceived support from family. Studies have indicated that Blacks tend to regard the family as an important source of social support (Cauce, Felner, & Primavera, 1982; Dressler, 1985). In a study of high-risk adolescents, Cauce and her colleagues found that Black adolescents rated the perceived helpfulness of parents and other relatives higher than did Hispanic or White adolescents. For many Blacks the definition of family may include not only the nuclear family but also extended family members (Dressler, 1985; Wilson & Tolson, 1990). Blacks may differ from Whites in the perception of perceived family support. In two studies, perceived family support was

related to fewer symptoms of depression in Blacks (Dressler, 1985; Jung & Khalsa, 1989). In a study of Black and White college students, Jung and Khalsa (1989) found that Black students perceived more support from family than from friends, whereas the opposite was true for White students.

Coping efforts. In the fourth stage of the model the individual chooses coping strategies. According to Slavin's expanded model of the stress process (Slavin et al., 1991), specific coping strategies can either be sanctioned or prohibited by culture. Coping patterns may be affected by the individual's religious beliefs. For example, Muslim individuals are prohibited from using alcohol and although this may be a common strategy used by some majority and minority adolescents, a Muslim adolescent would be prohibited by his or her religious beliefs from utilizing alcohol as a form of coping. Likewise, psychotherapy may not be culturally sanctioned for Black males.

There is some evidence that Blacks may make more extensive use of prayer as a coping strategy than others. Neighbors et al., (1983) studied stress, coping, and mental health of 2,107 Black participants. When asked which coping response helped them the most, 44% stated prayer was the one thing that helped the most. It is important to note that older Blacks used prayer more than did younger Black participants. Since this study involved only Black

participants age 18-65, it is not known how Hispanic, or White participants would respond.

Wills and Vaughn's (1989) study of 675 adolescents found support for racial and ethnic differences in the use of social support as a coping strategy. Using an intention-based coping inventory they found Whites scored higher than Blacks on peer support and Hispanics scored in a range between the two. They also found differences for a coping factor termed adult support which included items that asked about seeking support from doctors, teachers, counselors, and ministers. On this factor, Whites and Hispanics scored higher than Blacks.

Adaptational outcomes. When coping strategies and social support prove inadequate in dealing with the stressful event, culture affects the ways in which the individual can express psychological distress (Slavin et al., 1991). For example, in the traditional Asian American culture one would be more likely to express physical complaints because the open expression of psychological complaints is seen as shameful and is culturally prohibited (Sue & Sue, 1990).

Studies that have investigated racial/ethnic differences in symptomatology have usually focused on differences in symptom severity and prevalence. Warheit, Holzer, and Schwab (1973) studied depressive symptomatology in a sample of 1,645 adults which included 1267 Whites and 366 Blacks. Although Blacks had higher levels of depressive symptomatology than

Whites (mean depression score for Blacks 19.90 vs. 15.65 for Whites), SES rather than race accounted for this difference in symptom severity.

While much of the research on differences in symptomatology has been in studies that compared Whites to Blacks, few have compared these groups with Hispanics. Frerichs and colleagues (Frerichs et al., 1981) studied a sample of 1000 adults (609 Whites, 201 Hispanics, 124 Blacks, and 66 others). The highest prevalence of depression was among Hispanics (27.4%), followed by Blacks (21.8%) and others (21.2%). Whites had the lowest prevalence of depression (15.6%). After controlling for socioeconomic variables, neither race or ethnicity was significantly related to the rate of depression. They concluded that low socioeconomic status may be an important determinant of higher rates of depression experienced by many minorities (Frerichs et al., 1981).

Some researchers have found that, although there were no differences in mean distress scores between White individuals and ethnic/racial minority individuals, greater proportions of minority individuals are likely to have more extreme psychological distress scores than White individuals (Eaton & Kessler, 1981; Kessler, 1979). After adjusting for SES, Black individuals below the poverty level had the highest rate of depression when compared to higher socioeconomic

level Black individuals and White individuals of comparable socioeconomic status (Eaton & Kessler, 1981).

Though it has been posited that racial, ethnic, and cultural differences exist in symptom presentation, there has been little empirical research in this area. Most large epidemiological studies have either focused on the prevalence of a specific disorder, such as depression, or have investigated global psychological distress. In a study having a stated purpose of investigating racial differences in symptom presentation, Neff (1984) found some support for the assumption that racial differences exist in symptom presentation. He used a measure of psychological distress which included four factors: (a) somatic, (b) depression, (c) psychopathologic, and (d) nervous upset. His sample included both urban and rural Blacks and Whites. He found that Blacks were significantly more depressed than Whites. Rural Blacks manifested more somatic symptoms and psychopathologic symptoms (i.e., strange thoughts, paranoia) than either urban Blacks or urban and rural Whites. Whites reported slightly more somatic symptoms. He concluded that race differences in symptom presentation may vary by both urbanicity and distress dimension. Specifically, Whites may manifest more somatic symptoms than Blacks when the psychological distress measurement used includes a factor for somatic symptoms. Blacks may manifest more affective/depressive symptoms than Whites (Neff, 1984). Research is lacking which has compared

Hispanics with any other racial or ethnic group on differences in symptom presentation

In recent years more Hispanic individuals have moved to urban areas and assimilated into the urban culture. Keefe and Casas (1980) concluded that although there has been much acculturation and socioeconomic assimilation among Mexican Americans, there was little evidence that the extended family was losing importance. Hispanics of Mexican descent were more likely than White individuals to have relatives living nearby (Keefe & Casas, 1980). Similar to Hispanics of Mexican decent, Black individuals also tend to rely on the extended family for support (Ball, 1983; Neighbors et al., 1983). Taylor (1986) found that 37% of Black respondents in her survey reported that they interacted with an extended family member nearly everyday and 82% indicated that they received support from their family when they needed help. Based on the limited empirical research, one important way in which Black and Hispanic individuals differ from White individuals may be in the use of extended family as support in times of stress.

Purpose

While much research has been done in the area of stress and coping, most of this research has been done with White adult populations. Whereas much research has been done with adult populations, far less has been done with child and adolescent population. Much of the child and adolescent

research has used samples consisting mostly of White middle class children or adolescents. These samples included too few minorities to make meaningful comparisons. Although there has been research of minority children, usually these samples consisted mostly of at-risk, low SES children. In order to disentangle the effects of minority status from low socioeconomic status on stress outcome it is essential that minority relevant variables be compared at each stage of the transactional model of stress process. In this study, comparisons were made of stressful life events, social support, coping strategies, and health symptomatology across socioeconomic groups for Blacks, Hispanics, and Whites. Based on the above-cited literature the following hypotheses regarding adolescent racial/ethnic differences in stress, coping, and social support were tested:

Hypothesis 1. The joint effects of social support and coping strategies will ameliorate the effects of life stressors on overall psychological symptomatology in adolescents.

The specific coping strategies of problem solving, cognitive coping, adult support, and parental support will buffer the effects of life stressors.

Hypothesis 2. Enacted Social Support (actual support) exerts its beneficial influence by the provision of aid for individuals exposed to a stressor. Consistent with the effective support mobilization model of social support, Enacted Social Support will be positively related to life

stress. After controlling for effects of Life Stress, Enacted Social Support will be negatively related to controlling for Life Stress and a suppression effect will be evident.

Hypothesis 3. Consistent with Kessler's (1986) interactive hypothesis, ethnicity/race will interact with SES such that low SES Black and Hispanic high school students will manifest more symptomatology than low SES White high school students. Because there is little empirical research to support formal hypotheses regarding ethnic/racial differences in the stress process, the present study will investigate the following research questions:

Research Question 1. Are there ethnic/racial differences in sub-scale elevations on the Hopkins Symptom Checklist when SES is controlled?

Research Question 2. Are there differences in the types and frequency of events experienced across ethnic/racial groups?

Research Question 3. Are there ethnic/racial differences in the appraisal of the negative impact of events?

Research Question 4. Are there differences in the utilization of social support and specific coping strategies across ethnic/racial groups?

Research Question 5. Which coping strategies and types of social support are related to lower levels of psychological symptomatology for each ethnic/racial group?

CHAPTER II

METHOD

Participants

Five hundred and fifty high school students recruited from the Dallas Independent School District (DISD), which primarily serves the city of Dallas, Texas, participated in the present study. To ensure a sample which included approximately equal numbers of Black, Hispanic, and White adolescents from varied socioeconomic backgrounds, the DISD was selected as the site of the study because minority adolescents are over-represented in its student population. Students were recruited from within the DISD high schools identified from school census information as having a student population which included from 40% to 70% ethnic minority enrollment (i.e., Black and Hispanic students) from a variety of socioeconomic backgrounds, including low-income, middle-income, and upper middle-income families. Historically, minority individuals have been reluctant to participate in research studies. In order to increase minority participation, an extrinsic incentive (i.e., a random drawing for \$20 gift certificates) was offered.

These strategies resulted in a sample which included 199 Hispanic students (36.6%), 151 Black students (27.8%), 134 White students (24.7%), 34 Asian students (6.2%), 3 Native

American students (.5%), 22 students (4%) who identified their ethnic/racial group as Other, and 7 students (1.3%) who did not identify their ethnic/racial group. Of the 550 participants, 282 were female (51.9%) and 261 were male (48.1%), and 7 students (1.3%) failed to identify their sex. The student population came from a wide variety of socioeconomic backgrounds (see Tables 1 through 4 for parental education and occupation on following pages). Of the original 550 participants, data from 34 Asian students and 3 Native Americans were excluded because their subgroup numbers were too small to perform statistical analyses, and 22 students who listed their ethnicity/race as Other were excluded from the analyses because they were not of the subgroup under investigation.

One of the main research objectives was to investigate the effects of stress, social support, and coping for Black, Hispanic, and White adolescents after controlling for socioeconomic status (SES). Because 154 participants had incomplete data, they were excluded from the main analyses. Of these 154 participants, 147 students had incomplete data on the SES variable and 7 students had incomplete data on ethnic/race variable. The ethnic/racial breakdown of participants with incomplete SES data is as follows: 29 White adolescents (21.6%), 48 Black adolescents (31.8%), and 70 Hispanic adolescents (35.2%). Although no statistical tests were performed to compare students with complete SES

Table 1

Mother or Female Equivalent Occupations by Ethnic/Racial Groups

Occupation	White n=115		Black n=118		Hispanic n=163		Asian n=26		Native American n=2		Multi-Racial n=21	
	n	%	n	%	n	%	n	%	n	%	n	%
Not in labor force	22	19.1	12	10.2	57	35.0	7	26.9	0	0.0	4	19.0
Menial service worker	1	0.9	2	1.7	16	9.8	1	3.8	0	0.0	0	0.0
Unskilled worker	9	7.8	8	6.8	13	8.0	1	3.8	0	0.0	2	9.5
Machine operators, semi-skilled employee	8	7.0	25	21.2	30	18.4	6	23.1	0	0.0	3	14.3
Small business owner, skilled manual labor	6	5.2	15	12.7	13	8.0	4	15.4	0	0.0	2	9.5
Clerical and sales worker, small business owner	25	21.7	16	13.6	10	6.1	0	0.0	1	50.0	1	4.8
Administrative personnel, semi professional, small business owner	21	18.3	21	17.8	15	9.2	4	15.4	0	0.0	3	14.3
Manager, minor professional, small business owner	16	13.9	11	9.3	7	4.3	1	3.8	1	50.0	3	14.3
Administrator, lesser professional, proprietor of medium sized business	5	4.3	5	4.2	2	1.2	1	3.8	0	0.0	0	0.0

Table 1 (Continued)

Occupation	White		Black		Hispanic		Asian		Native American		Other	
	n	%	n	%	n	%	n	%	n	%	n	%
Higher executive, proprietor of large business, major professional	2	1.7	2	1.7	0	0.0	0	0.0	0	0.0	0	0.0
Involved in illicit work	0	0.0	1	0.8	0	0.0	1	3.8	0	0.0	1	4.8

Note. Based on Hollingshead occupational categories. Data were missing for 105 participants.

Table 2

Mother or Female Equivalent Highest Level of Education by Ethnic/Racial Groups

Education	White n=126		Black n=140		Hispanic n=176		Asian n=30		Native American n=3		Other n=21	
	n	%	n	%	n	%	n	%	n	%	n	%
7th Grade or less	2	1.6	1	0.7	72	40.9	9	30.0	0	0.0	2	9.5
8th - 9th Grade	3	2.4	5	3.6	31	17.6	6	20.0	0	0.0	1	4.1
10th - 11th Grade	18	14.3	18	12.9	22	12.5	1	3.3	1	33.3	3	14.3
High School Diploma	34	27.0	41	29.3	21	11.9	7	23.3	1	33.3	6	28.6
1 Year College or Technical Training	41	32.5	43	30.7	18	10.2	2	6.7	0	0.0	5	23.8
4 Year College Degree	17	13.5	15	10.7	3	1.7	3	10.0	1	33.3	3	14.3
Masters Degree or Above	11	8.7	17	12.1	9	5.1	2	6.7	0	0.0	1	4.8

Note. Data were missing for 54 participants.

Table 3

Father or Male Equivalent Occupations by Ethnic/Racial Groups

Occupation	White		Black		Hispanic		Asian		Native American		Other	
	n	%	n	%	n	%	n	%	n	%	n	%
Not in labor force	5	5.5	8	9.3	9	5.9	3	12.0	0	0.0	1	5.6
Menial service worker	1	1.1	0	0.0	8	5.3	0	0.0	0	0.0	1	5.6
Unskilled worker	3	3.3	3	3.5	22	14.5	2	8.0	0	0.0	1	5.6
Machine operators, semi-skilled employee	8	8.8	16	18.6	36	23.7	1	4.0	1	50.0	2	11.1
Small business owner, skilled manual labor	14	15.4	22	25.6	50	32.9	7	28.0	0	0.0	4	22.2
Clerical and sales worker, small business owner	9	9.9	6	7.0	2	1.3	4	16.0	1	50.0	1	5.6
Administrative personnel, semi professional, small business owner	14	15.4	13	15.1	19	12.5	3	12.0	0	0.0	2	11.1
Manager, minor professional, small business owner	18	19.9	13	15.1	3	2.0	3	12.0	0	0.0	2	11.1
Administrator, lesser professional, proprietor of medium sized business	9	11.0	1	1.2	1	0.7	1	4.0	0	0.0	2	11.1

Table 3 (Continued)

Occupation	White		Black		Hispanic		Asian		Native American		Other	
	n	%	n	%	n	%	n	%	n	%	n	%
Higher executive, proprietor of large business,												
major professional	10	11.0	3	3.5	2	1.3	0	0.0	0	0.0	1	5.6
Involved in illicit work	0	0.0	1	1.2	0	0.0	1	4.0	0	0.0	1	5.6

Note Based on Hollingshead occupational categories. Data were missing for 176 participants.

Table 4

Father or Male Equivalent Highest Level of Education by Ethnic/Racial Groups

Education	White		Black		Hispanic		Asian		Native American		Other	
	n	%	n	%	n	%	n	%	n	%	n	%
	n=106		n=104		n=150		n=26		n=3		n=20	
7th Grade or less	1	0.9	2	1.9	55	36.7	5	19.2	0	0.0	3	15.0
8th - 9th Grade	7	6.6	4	3.8	25	16.7	3	11.5	0	0.0	1	5.0
10th - 11th Grade	11	10.4	11	10.6	23	15.3	3	11.5	1	33.3	2	10.2
High School Diploma	18	17.0	38	36.5	18	12.0	7	26.9	0	0.0	6	30.0
1 Year College or Technical Training	20	18.9	22	21.2	14	9.3	1	3.8	1	33.3	2	10.0
4 Year College Degree	31	29.9	17	16.3	6	4.0	4	15.4	0	0.0	3	15.0
Masters Degree or Above	18	17.0	10	9.6	9	6.0	3	11.5	1	33.3	3	15.0

Note. Data were missing for 141 participants.

data to students with incomplete SES data, their mean scores on other important variables (i.e., coping, social support, etc.) appeared to be highly similar (see Table 5).

Table 5

Students with Complete SES Data
Compared to Students with Missing SES Data

	Black Students				Hispanic Students				White Students			
	Complete		Missing		Complete		Missing		Complete		Missing	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
HSCL Scores	1.80	0.53	1.77	0.54	1.83	0.50	1.69	0.57	1.80	0.53	1.77	0.54
ISSB Scores	2.45	1.12	1.98	0.94	2.36	1.03	2.11	1.11	1.81	0.89	1.71	0.99
Coping Factor 1	2.86	0.89	2.85	0.95	2.96	0.87	2.76	0.95	2.91	0.81	2.08	0.75
Coping Factor 2	1.89	0.79	1.83	0.65	1.95	0.73	1.84	0.72	2.11	0.82	1.97	0.72
Coping Factor 3	2.23	1.05	2.10	0.79	2.29	0.96	1.91	0.87	2.01	0.93	2.31	0.90
Stressful Events	9.35	7.42	10.46	7.86	9.78	8.36	7.61	7.71	12.63	9.54	12.41	7.34

Note. No statistical tests were performed to compare means and standard deviations.

On the basis of these exclusion criteria, data from only 337 students were analyzed. The ethnic/racial breakdown of the resulting sample included 103 Black students (31%), 129 Hispanic students (38%), and 105 White students (31%). Students in the present study ranged from 13 to 19 years of age ($M=15.37$, $SD=1.22$).

Procedures

Participants were recruited from physical education and health classes which are required courses in the school district. Both parental written consent and student assent was obtained from all participants (see Appendices A and B). Students were asked to take a letter describing the study and requesting parental consent for participation home to their parents. In addition to describing the study and assuring parents and students of confidentiality, the letter announced a drawing for \$20 certificates to a local music store for participants in the study. Both the UNT Committee for the Protection of Human Subjects and the Dallas Independent School District gave permission for the study to be conducted (see Appendices C and D). All ethical principles established by the American Psychological Association (APA, 1992) were followed.

Questionnaires consisting of demographics questions (i.e., ethnic/racial status, sex, SES, etc.) and scales that measured social support, coping, Life Stress, and psychological functioning were administered to students in a group format. After the first administration of the questionnaire, the present author found that some students were unable to complete the questionnaire because of shortage of time coupled with reading difficulties. In order to better ensure reliable self-report data, two revisions were made to the questionnaire to make it shorter and easier to

complete. Revisions were made to the following inventories: Demographic Information Form (see Appendices E, F, and G), the Inventory of Socially Supportive Behaviors (see Appendices H and I), and the Life Events Inventory (see Appendices J, K, and L).

Data were collected from five schools within the DISD. One hundred eighty students were given demographic form version 1 (see Appendix E), Life Events Inventory version 1 (see appendix J), the ISSB 40-item inventory (see Appendix H) and Marlowe-Crowne Social Desirability Scale 10-item inventory (see Appendix P). One hundred fifty-one students were given demographic form version 2 (see appendix F), Life Events Inventory version 2 (see appendix K), the ISSB-40 item inventory (see Appendix H) and Marlowe-Crowne Social Desirability Scale 10-item inventory (see Appendix P). Two hundred nineteen students were administered demographic form version 3 (see appendix G), Life Events Inventory version 2 (see appendix L), the ISSB 19-item inventory (see appendix I). All students were administered the same Hopkins Symptom Checklist and coping inventories. Only those items on inventories that were common to all groups were analyzed.

To ensure that informed consent had been obtained, teachers collected the parental consent forms and sent only those students with parental consent to a designated room in the school where questionnaires were completed. Questionnaires were anonymously completed; parental consent

and adolescent assent forms were not linked in any way to completed questionnaires. After passing out questionnaires, the author and another doctoral-level psychology graduate student circulated among the students to answer any questions about specific items.

Measures

Demographic information. A brief questionnaire (see Appendices E, F, and G) was used to obtain demographic information. Specific information about the parent(s) or guardian(s) with whom the child resided, level of education and occupation were used to compute a modified form of the Hollingshead (1975) Four Factor Index of Social Status. In the original Four Factor Index of Social Status, the score for a family when both spouses were employed was computed by multiplying both spouses education by a factor of 3 and their occupational status by a factor of 5. The scores for both spouses were then summed and averaged. Because many participants in the present study did not come from traditional nuclear families, Four Factor scores were calculated for the parent(s) or guardian(s) with whom the child resided. For example, when a child resided with an uncle and aunt or grandmother and grandfather, the score was calculated for the persons with whom the child resided rather than the parent(s). Another important modification made to the Four Factor score was the method of calculating the total score. In the present study, when two parents or guardians

resided with the child, the score was calculated by multiplying the level of education and occupational status by Hollingshead's original factors and summing the scores for education and occupation (unlike Hollingshead, who took the average score of the two parents' scores).

Hollingshead reported a coefficient of correlation between median years of school and occupational score as .84 for males and .85 for females. Based on the entire sample in this study, Pearson product moment correlations between occupational score and highest level of education were .49 for females (mothers) and .59 for males (fathers). For Black parents, the correlations between occupational score and highest level of education was .71 for males and .47 for females. In contrast, for Hispanic parents, the correlation between occupational score and highest level of education was .41 for males and .49 for females. For White parents, the correlation between occupational score and highest level of education was .63 for males and .27 for females.

Psychological symptomatology. The Hopkins Symptom Checklist (HSCL) (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974) was used to measure psychological symptomatology (see Appendix M). The scale contains 58 items; the alpha internal consistency has been reported at .87 in a sample of 1,435 outpatients (Derogatis et al., 1974). Factor analysis yielded the following five dimensions: Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression,

and Anxiety (Derogatis et al., 1974). In the present sample, internal consistency coefficients were as follows: Somatization factor $\alpha=.86$, Obsessive-Compulsive $\alpha=.79$, Interpersonal Sensitivity $\alpha=0.81$, Depression $\alpha=.88$, and Anxiety $\alpha=.78$. The internal consistency coefficients were as follows for each ethnic/racial group: Somatization factor $\alpha=.84$ for Black adolescents, $.85$ for Hispanic adolescents, and $.89$ for White adolescents; Obsessive-Compulsive $\alpha=.78$ for Black adolescents, $.80$ for Hispanic adolescents, and $.82$ for White adolescents; Interpersonal Sensitivity $\alpha=.81$ for Black adolescents, $.80$ for Hispanic adolescents, and $.81$ for White adolescents; Depression $\alpha=.87$ for Black adolescents, $.87$ for Hispanic adolescents, and $.89$ for White adolescents. Finally, the α internal consistency coefficient for Anxiety was $.76$ for Black adolescents, $.76$ for Hispanic adolescents, and $.83$ for White adolescents. Both the overall score and the subscales scores were used in analyses. The overall score was computed as the mean of all items. Subscales scores were computed by summing ratings for items contained on that factor. Use of the subscale scores allowed for comparison of factor scores across the three groups.

Life Stress. Stressful life events was assessed with a 47-item inventory or 49-item inventory (see Appendices J, K, and L). This inventory is the subject of another study (Prelow & Guarnaccia, 1994). Most life events inventories

for adolescents have been developed with mostly White populations. Because it is important that life event inventories reflect actual life events that occur with some frequency within the population under research, it was necessary to develop a multi-ethnic/racial inventory for this study. Items were selected from existing life adolescent inventories and from a search of the minority stress literature. (e.g., Coddington, 1971; Compas et al., 1987; Johnson & McCutcheon, 1980; Newcomb et al., 1986). This original list consisted of 47 events. Since there are certain universally stressful events (i.e., death of relative), it is not surprising that 38 of the events on the present author's life events inventory overlapped with events on other inventories (Coddington, 1971; Compas et al., 1987; Johnson & McCutcheon, 1980; Newcomb et al., 1986). Nine events primarily selected from Mosley and Lex's (1990) list of events generated by their discussion with urban adolescents were added to the list of potentially stressful events.

In order to determine whether the sample of events selected was representative of the events occurring to a multiethnic/racial adolescent population, persons with expertise working with adolescents were asked to rate the events as to their relevance to Black, White, and Hispanic adolescents. This sample of experts consisted of 13 school teachers, 5 graduate psychology students, 2 school

administrators, 1 associate school psychologist, 1 school counselor, and 1 clinical social worker. The ethnic/racial breakdown of this group included 1 Black participant, 5 Hispanic participants, and 17 White participants. Each participant was asked to indicate whether the events on the inventory happened to adolescents with whom they worked, to indicate if they felt the event would affect an adolescent's psychological adjustment, and to indicate if the event happened more frequently to Whites, to minorities, or equally to both groups.

The next stage in the process involved testing the relevancy of the events for a multiethnic/racial adolescent population in a pilot study. The population of the pilot study consisted of 186 undergraduate students, 104 females and 74 males. Students ranged in age from 18 to 20 ($M=18.54$, $SD = .75$). The pilot study sample included 145 (79.2%) White students, 16 (8.7%) Black students, 11 (6%) Hispanic students, 4 (3.8%) Asian students, 5 (1%) Native American students, and 1 (.5%) student of other ethnic/racial status. Since the pilot study was conducted with students attending a university, it had the advantage of sampling individuals from wide range of geographical areas. Represented in the pilot sample were students from urban, suburban, and rural areas from 13 states and 3 foreign countries.

Students in the pilot study rated how often each event happened to them during high school using a scale of 1 (never

happened) to 5 (several times a week). Students were also asked to rate the impact the event had on them using a scale from 1 (no impact) to 5 (extremely negative). In addition, students were asked to list any additional stressful events that happened to them during high school that were not listed on the inventory. Twenty additional events were generated but were not added to the life events inventory because these events had not been experienced by more than one student. As can be seen in Table 6 on the following pages, of the 47 events listed, only nine (20%) happened to less than 10% of the total sample population. Of these nine infrequently occurring events, five occurred to less than 5% of the population. These events were as follows: 1. school suspension, 2. had a handicap, 3. pregnancy or fathering a pregnancy, 4. carried a weapon, 5. required special education classes, and 6. birth of a sibling. Although these events happened with relative infrequency in the undergraduate sample population, a search of the literature (Mosley & Lex, 1990) indicated that they occurred with relative frequency in urban multiethnic/racial populations. Because the present author's life events inventory was intended for use with an urban population, a decision was made to retain all items (see Tables 6 and 7 on the following pages).

The life events inventory is based on the transactional perspective of the stress process and allowed students to rate the frequency of occurrence of events and to

Table 6

Percentage of College Undergraduate Students Reporting High School Occurrences of Life Events by Ethnic/Racial Group

	Ethnic/Racial Differences														
	Total												χ^2		
	Events	White	Black	Hispanic	Asian	Native American	Other	χ^2	df=5						
	n	%	n	%	n	%	n	%	n	%	n	%			
1. Failure to pass one or more subjects	50	27.5	35	24.1	5	31.3	5	45.5	5	71.4	0	0.0	0	0.0	10.63*
2. Death of a close friend	67	36.8	50	34.5	6	37.5	5	45.5	4	57.1	2	100.0	0	0.0	5.95
3. Death of a family member	91	50.0	77	53.1	4	24.0	5	45.5	3	42.9	2	100.0	0	0.0	7.79
4. Arrest of a family member	23	12.6	15	10.3	5	31.3	2	18.2	1	14.3	0	0.0	0	0.0	6.47
5. Personal hospitalization	56	30.8	41	28.3	7	43.8	3	27.3	4	57.1	1	50.0	0	0.0	4.83
6. Family member hospitalized	116	63.7	90	62.1	11	68.8	7	63.6	5	71.4	2	100.0	1	100.0	2.23
7. Trouble with the law	45	24.7	36	24.8	2	12.5	1	9.1	6	85.7	0	0.0	0	0.0	17.70**
8. Committed a crime	20	11.0	16	11.0	0	0.0	1	9.1	2	28.6	1	50.0	0	0.0	7.46
9. Friends got in trouble with the law	82	45.1	64	44.1	6	37.5	4	36.4	5	71.4	2	100.0	1	100.0	6.38
10. Fight with a parent	150	82.4	121	83.4	10	62.5	11	100.0	6	85.7	1	50.0	1	100.0	8.55
11. Fight, conflict, or argument with friend	142	78.0	115	79.3	7	43.8	11	100.0	7	100.0	1	50.0	1	100.0	17.37**
12. Parents had fight or argued	105	57.7	82	56.6	6	37.5	9	81.8	5	71.4	2	100.0	1	100.0	8.11
13. Parents separated	30	16.5	26	17.9	1	6.3	1	9.1	1	14.3	1	50.0	0	0.0	3.73
14. Harassed because of race	32	17.6	18	12.4	8	50.0	0	0.0	5	71.4	1	50.0	1	100.0	35.74***
15. Parents divorced	25	13.7	20	13.8	2	12.5	1	9.1	1	14.3	1	50.0	0	0.0	2.60
16. Major decrease in family income	67	36.8	53	36.6	6	37.5	4	36.4	2	28.6	2	100.0	0	0.0	4.22
17. Relative in trouble for drug/alcohol abuse	27	14.8	24	16.6	0	0.0	3	27.3	0	0.0	0	0.0	0	0.0	6.21

Table 6 (Continued)

	Ethnic/Racial Differences													χ^2	df=5				
	Total		White				Black			Hispanic		Asian				Native American		Other	
	n	%	n	%	n	%	n	%	n	%	n	%	n			%	n	%	n
18. Moved away from one parent to another	15	8.2	10	6.9	1	6.3	2	18.2	1	14.3	1	50.0	0	0.0	0	0.0	0	0.0	6.90
19. Moved to new school	38	20.9	33	22.8	0	0.0	3	27.3	2	28.6	0	0.0	0	0.0	0	0.0	0	0.0	5.85
20. Parent lost job	39	21.4	32	22.1	3	18.8	1	9.1	2	28.6	1	50.0	0	0.0	0	0.0	0	0.0	2.55
21. Failed to make team activity when tried to	42	23.1	37	25.5	2	12.5	3	27.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4.60
22. Violent crime in school or neighborhood	76	41.8	59	40.7	8	50.0	6	54.5	2	28.6	0	0.0	1	100.0	0	0.0	1	100.0	4.58
23. Gang activity in school or neighborhood	61	33.5	45	31.0	8	50.0	5	45.5	2	28.6	1	50.0	0	0.0	0	0.0	0	0.0	3.88
24. Had a sexual experience	127	69.8	106	73.1	9	56.3	7	63.6	3	42.9	2	100.0	0	0.0	2	100.0	0	0.0	7.93
25. Became engaged or married	10	5.5	7	4.8	0	0.0	1	9.1	0	0.0	0	0.0	2	100.0	0	0.0	0	0.0	36.19***
26. Had to care for younger siblings	32	17.6	26	17.9	0	0.0	4	36.4	2	28.6	0	0.0	0	0.0	0	0.0	0	0.0	7.33
27. Used alcohol or drugs	91	50.0	76	52.4	4	25.0	5	45.5	4	57.1	2	100.0	0	0.0	0	0.0	0	0.0	5.57
28. Teachers favored other students	53	29.1	39	26.9	5	31.3	4	36.4	3	42.9	1	50.0	1	100.0	0	0.0	1	100.0	4.16
29. Weight change	65	35.7	52	35.9	4	25.0	4	36.4	4	57.1	1	50.0	0	0.0	0	0.0	0	0.0	2.94
30. Other activities interfered with school	89	48.9	70	48.3	3	18.8	9	81.8	4	57.1	2	100.0	1	100.0	1	100.0	1	100.0	13.94**
31. Change in personal appearance	70	38.5	54	37.2	4	25.0	5	45.5	5	71.4	1	50.0	1	100.0	0	0.0	0	0.0	6.47
32. Liked someone who didn't like you	109	59.9	95	65.5	5	31.3	5	45.5	2	28.6	1	50.0	1	100.0	1	100.0	1	100.0	11.94*
33. Suspension from school	8	4.4	4	2.8	2	12.5	0	00.0	2	28.6	0	0.0	0	0.0	0	0.0	0	0.0	13.80**
34. Broke up with boyfriend/girlfriend	130	71.4	108	74.5	8	50.0	8	72.7	4	57.1	1	50.0	1	100.0	1	100.0	0	0.0	5.82
35. Brother or sister left home	47	25.8	42	29.0	0	0.0	1	9.1	3	42.9	1	50.0	0	0.0	0	0.0	0	0.0	9.94
36. Marriage of parent to step-parent	16	8.8	12	8.3	2	12.5	0	0.0	1	14.3	1	50.0	0	0.0	0	0.0	0	0.0	5.98

Table 6 (Continued)

	Total		Ethnic/Racial Differences										χ^2	df=5			
	n	%	White	Black	Hispanic	Asian	Native American	Other	n	%	n	%					
37. Began senior year of high school	135	74.2	110	75.9	9	56.3	10	90.9	3	42.9	2	100.0	0	0.0	0	0.0	9.13
38. Had a visible handicap	4	2.2	3	2.1	1	6.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1.70
39. Became pregnant or fathered a pregnancy	5	2.7	4	2.8	1	6.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1.33
40. Started carrying weapon to protect self	6	3.3	4	2.8	1	6.3	0	0.0	1	14.3	0	0.0	0	0.0	0	0.0	3.70
41. Kids had weapons in school/neighborhood	59	32.4	50	34.5	5	31.3	3	27.3	1	14.3	0	0.0	0	0.0	0	0.0	2.91
42. Problems with teachers/administrators	53	29.1	45	31.0	4	25.0	2	18.2	2	28.6	0	0.0	0	0.0	0	0.0	2.26
43. Involved in a fight	39	21.4	33	22.8	2	12.5	2	18.2	2	28.6	0	0.0	0	0.0	0	0.0	2.00
44. Required special education classes	1	0.5	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.26
45. No-pass no-play rule enforced	22	12.1	19	13.1	1	6.3	2	18.2	0	0.0	0	0.0	0	0.0	0	0.0	2.41
46. Another adult moved in with family	69	37.9	55	37.9	4	25.0	5	45.5	3	42.9	1	50.0	0	0.0	0	0.0	3.23
47. Birth of brother or sister	8	4.4	7	4.8	1	6.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1.16

Note. Data were missing for 1 participant.

Table 7

Percentage of College Undergraduate Students Reporting

High School Occurrences of Life Events by Sex

	Total				Sex Differences				χ^2	df=1
	Events		Males		Females		χ^2	df=1		
	n	%	n	%	n	%				
1. Failure to pass one or more subjects	49	27.7	23	31.5	26	25.0	0.90	0.90		
2. Death of a close friend	65	36.7	27	37.0	38	36.5	0.00	0.00		
3. Death of a family member	89	50.3	40	54.8	49	47.1	1.01	1.01		
4. Arrest of a family member	21	11.9	8	11.0	13	12.5	0.09	0.09		
5. Personal hospitalization	54	30.5	22	30.1	32	30.8	0.00	0.00		
6. Family member hospitalized	114	64.4	41	56.2	73	70.2	3.68*	3.68*		
7. Trouble with the law	43	24.3	27	37.0	16	15.4	10.88**	10.88**		
8. Committed a crime	19	10.7	13	17.8	6	5.8	6.49*	6.49*		
9. Friends got in trouble with the law	79	44.6	34	46.6	45	43.3	0.18	0.18		
10. Fight with a parent	146	82.5	54	74.0	92	88.5	6.23**	6.23**		
11. Fight, conflict, or argument with friend	138	78.0	50	68.5	88	84.6	6.49**	6.49**		
12. Parents had fight or argued	104	58.8	38	52.1	66	63.5	2.30	2.30		
13. Parents separated	29	16.4	10	13.7	19	18.3	0.65	0.65		
14. Harassed because of race	31	17.5	15	20.5	16	15.4	0.79	0.79		

Table 7 (Continued)

	Total		Sex Differences				χ^2	df=1
	Events		Males		Females			
	n	%	n	%	n	%		
15. Parents divorced	24	13.6	6	8.2	18	17.3	3.02	
16. Major decrease in family income	64	36.2	24	32.9	40	38.5	0.58	
17. Relative in trouble for drug/alcohol abuse	26	14.7	11	15.1	15	14.4	0.01	
18. Moved away from one parent to another	14	7.9	2	2.7	12	11.5	4.56*	
19. Moved to new school	36	20.3	11	15.1	25	24.0	2.13	
20. Parent lost job	37	20.9	12	16.4	25	24.0	1.50	
21. Failed to make team activity when tried to	41	23.2	17	23.3	24	23.1	0.00	
22. Violent crime in school or neighborhood	75	42.4	29	39.7	46	44.2	0.35	
23. Gang activity in school or neighborhood	61	34.5	22	30.1	39	37.5	1.03	
24. Had a sexual experience	122	68.9	51	69.9	71	68.3	0.05	
25. Became engaged or married	10	5.6	3	4.1	7	6.7	0.55	
26. Had to care for younger siblings	30	16.9	12	16.4	18	17.3	0.02	
27. Used alcohol or drugs	87	49.2	40	54.8	47	45.2	1.58	
28. Teachers favored other students	52	29.4	17	23.3	35	33.7	2.22	

Table 7 (Continued)

	Total				Sex Differences				χ^2	df=1
	Events		Males		Females		χ^2			
	n	%	n	%	n	%				
29. Weight change	64	36.2	14	19.2	50	48.1	15.52***			
30. Other activities interfered with school	88	49.7	37	50.7	51	49.0	0.05			
31. Change in personal appearance	70	39.5	27	37.0	43	41.3	0.34			
32. Liked someone who didn't like you	109	61.6	39	53.4	70	67.3	3.49			
33. Suspension from school	7	4.0	5	6.8	2	1.9	2.74			
34. Broke up with boyfriend/girlfriend	126	71.2	49	67.1	77	74.0	0.99			
35. Brother or sister left home	45	25.4	15	20.5	30	28.8	1.56			
36. Marriage of parent to step-parent	15	8.5	4	5.5	11	10.6	1.43			
37. Began senior year of high school	133	75.1	53	72.6	80	76.9	0.43			
38. Had a visible handicap	4	2.3	2	2.7	2	1.9	0.13			
39. Became pregnant or fathered a pregnancy	5	2.8	0	0.0	5	4.8	3.61*			
40. Started carrying weapon to protect self	5	2.8	3	4.1	2	1.9	0.75			
41. Kids carrying weapons in school or neighborhood	59	33.3	26	35.6	33	31.7	0.29			
42. Problems with teachers or school administrators	53	29.9	27	37.0	26	25.0	2.94			

Table 7 (Continued)

	Total		Sex Differences				χ^2	df=1
	Events		Males		Females			
	n	%	n	%	n	%		
43. Involved in a fight	37	20.9	21	28.8	16	15.4	4.65*	
44. Required special education classes	1	0.6	0	0.0	1	1.0	0.71	
45. No-pass no-play rule enforced	22	12.4	11	15.1	11	10.6	0.80	
46. Another adult moved in with family	68	38.4	25	34.2	43	41.3	0.91	
47. Birth of brother or sister	8	4.5	3	4.1	5	4.8	0.04	

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

Note. Data were missing for 6 participants.

subjectively rate how negatively the event had impacted their health and/or adjustment. For each event, the student was instructed to rate the frequency of occurrence of the event in the last year from 1 (never happened) to 5 (happened several times a week). This rating scale allowed the investigator to determine variations in frequency of occurrence and in types of events experienced across ethnic/racial and socioeconomic groups. Additionally, if the event occurred, the student was asked to rate the extent to which the event negatively affected his or her life using a 5-point scale, ranging from 1 (no impact) to 5 (extremely negative impact). The Life Stress score was computed using a simple count of the number of events endorsed and rated as having at least a slightly negative impact. For example, the event "failed one or more school subjects," must not only have been endorsed as having occurred in the last year, but it must have also received a negative impact rating ranging from 2 (slightly negative) to 5 (extremely negative) to be counted.

To address possible confounding between psychological distress (i.e., sub-scale scores on the Hopkins Symptom Checklist) with level of stress (i.e., impact ratings on the life events inventory), the impact score was not used to modify the stress score. Two impact scores were calculated, Total Impact score and Average Event Impact score. Total Negative Impact scores were calculated by summing the impact

rating for each event endorsed and computing a mean score. For example, if a participant had two events that occurred and rated the impact of each event as 5, the Total Negative Impact Score would be 5. In contrast, Average Event Impact scores were calculated by summing the impact rating for each event for all participants and computing a mean score for each event. This allowed possible differences in impact ratings across ethnic/racial groups to be studied in an exploratory manner.

Social support. The 40-item Inventory of Socially Supportive Behaviors (ISSB) and the 19-item abbreviated version (Barrera & Baca, 1990) were used to assess social support (see Appendix J for 40-item version and Appendix H for 19-item version). The ISSB 40-item inventory has been used with multi-ethnic/racial populations (Barrera, Sandler, & Ramsay, 1981). The ISSB differs from other support measures in that it does not measure perceived availability of support or support satisfaction, but rather measures support mobilization. Test-retest reliability of .80 and .63 (Barrera et al., 1981) has been reported for the ISSB for a 1-month period interval in a sample of undergraduate students. In the total sample population, the alpha internal consistency for the abbreviated scale was .94. The alpha internal consistency coefficients for each ethnic/racial group were as follows: for Black adolescents alpha=.94, Hispanic adolescent alpha=.95, and White adolescents

alpha=.92. In addition, the Pearson correlation between the 19-item version and the 40-item version was .98. The ISSB score was computed by computing the mean of the 19-item abbreviated version.

Coping strategies. Adolescents were asked to indicate their most stressful event in the last year, and then asked how often they used 57 coping strategies to deal with the event. Coping strategies were assessed through an inventory used in the Wills (1986) and Glyshaw (1989) studies, subsequently revised by Wills and further revised (Guarnaccia & Prelow, 1994) to include seven items that reflect possible ethnic and cultural coping strategies (see Appendix N). Wills used this inventory with a population which consisted of approximately 50 percent White adolescents and 50 percent ethnic/racial minority adolescents. According to Wills (1985), this coping inventory was derived from the Response Profile of Coping Assessment Battery developed by Bugen Hawkins. Although Wills (1985) reported 11 factors and Glyshaw (1989) confirmed five of Wills' 11 factors, confirmatory factor analyses revealed only three factors (Guarnaccia & Prelow, 1995). The following three factors were assessed in the present study: Problem Solving/Cognitive Coping, Externalizing/Resigning Coping, and Seeking Family Support Coping (see Appendix Q). In the present sample population, reliability coefficients were as follows: Problem Solving/Cognitive Coping factor alpha=.93, Externalizing/

Resigning Coping factor $\alpha=.91$, and Seeking Family Support Coping factor $\alpha=.86$. The alpha internal coefficients for each ethnic/racial group were as follows: Problem Solving/Cognitive Coping for Black adolescents $\alpha=.94$, Hispanic adolescents $\alpha=.95$, and White adolescents $\alpha=.91$; Externalizing/Resigning Coping for Black adolescents $\alpha=.86$, Hispanic adolescents $\alpha=.90$, and White adolescents $\alpha=.91$; and Seeking Family Support Coping for Black adolescents $\alpha=.86$, for Hispanic adolescents $\alpha=.86$, and for White adolescents $\alpha=.88$.

Students responded to how often they used certain coping strategies on a 5-point scale ranging from (1) never to (5) always in response to the question of how did they cope with the most stressful event in the last year. Subscale scores were obtained by summing the items for each factor and calculating the mean for each subscale. This procedure allowed for comparisons of the effectiveness of specific coping factors for certain types of stressors (i.e., Network Loss Events, Family Events, etc.).

Social desirability. A short form of the Marlowe-Crowne Social Desirability Scale (M-C 1[10]), was used to assess whether participants answered questions in a socially desirable way (Strahan & Gerbasi, 1972). In the present study, the 10-item M-C 1(10) had an alpha internal consistency coefficient of .47 (see Appendix P). The alpha internal consistency for the 10-item M-C 1(10) for Black

adolescents was .60, for Hispanic adolescents the alpha was .47, and for White adolescents the alpha internal consistency was .41. In the third revision of the questionnaire, the Marlowe-Crowne was dropped in order to reduce the time required to complete the questionnaires because of time constraints imposed by the schedules of the schools in which the data was collected. The Marlowe-Crowne was scored in the direction that higher scores reflected higher levels of the social desirability trait. Scores were summed and the mean was calculated.

CHAPTER III

RESULTS

In order to determine whether adolescents were responding to the Life Events Inventory in socially desirable manner, a Pearson Product-Moment correlation was computed between the Marlowe-Crowne Social Desirability Scale-Short Form (M-C 1[10]) score and total Life Events score. The Marlowe-Crowne Social score was found to be uncorrelated with the Life Events score for each of the three ethnic/racial groups. The correlations for each group are as follows: Black adolescents, $r = .01$, $p > .05$; Hispanic adolescents, $r = .17$, $p > .05$; White adolescents, $r = .001$, $p > .05$. Since the Marlowe-Crowne scores did not indicate that participants were responding to items in a socially desirable manner, this score was not used as a control variable in regression analyses.

Testing of Hypotheses

Hierarchical regression, a conservative, parsimonious approach, was chosen to test the hypotheses. Hierarchical regression is conservative in that theory dictates the order of entry of the variables on each step, with more complex variables typically entered on later steps, thus lessening the likelihood of chance findings. Also, in hierarchical regression, the amount of variance accounted for by a

predictor entered at each step is over and above the variance accounted for by variables entered on previous steps. In this way, the relative additional importance of each subsequent predictor can be determined. This approach is also parsimonious because the main-effects model, the buffering effects model, and the conjunctive moderator model can all be tested in one regression equation. Variable scores were transformed to Z-scores in order to reduce the likelihood of multicollinearity that often results when the interaction term is generated (Aiken & West, 1991). On the basis of theory, the order of entry for the variables were as follows: step 1, demographic variables (i.e., age, sex, SES); step 2, stressful events score; step 3, Enacted Social Support (actual support); step 4, coping strategies; step 5, an interaction term of Life Stress x social support; step 6, an interaction term of Life Stress x coping; step 7 interaction term of coping x social support, and on step 8 an interaction term of Life Stress x social support x coping.

Problem Solving/Cognitive Coping and Enacted Social Support. The first hypothesis was a test of whether the data best fit the main-effects model, the buffering model, or the conjunctive moderator model. To test the effects of the three coping strategies, separate equations were generated for each coping strategy. In addition, separate equations were generated for each ethnic/racial group and sex.

Main-effects for Life Stress were observed for all three groups (see Table 8). As expected, high Life Stress scores were associated with increased Hopkins Symptom Checklist scores. No main-effects were found in either group for Enacted Social Support, as measured by the ISSB. Main-effects for Problem Solving/Cognitive Coping was positively related to Hopkins Symptom Checklist Total Scores for both Black and White adolescents. None of the two-way interactions was significant.

The three-way interaction of Life Stress x Social Support x Problem Solving/Cognitive Coping was tested in all three groups. This three-way interaction was only significant for Black adolescents. Interpretation of these results was made by solving the equation for regression of the line for effects under high, medium, and low levels of each of the three factors (i.e., Stress, Problem Solving/Cognitive Coping, and Enacted Social Support). The regression equation for a line with 3 factors and the interaction terms is as follows (Aldwin, 1994):

$$Y = \beta_{\text{stress}}(\text{Stress}) + \beta_{\text{Enacted Social Support}}(\text{Enacted Social Support}) + \beta_{\text{Coping}}(\text{Coping}) + \beta_{\text{Stress} \times \text{Enacted Social Support}}(\text{Stress} \times \text{Enacted Social Support}) + \beta_{\text{Stress} \times \text{Coping}}(\text{Stress} \times \text{Coping}) + \beta_{\text{Coping} \times \text{Enacted Social Support}}(\text{Coping} \times \text{Enacted Social Support}) + \beta_{\text{Stress} \times \text{Enacted Social Support} \times \text{Coping}}(\text{Stress} \times \text{Enacted Social Support} \times \text{Coping}) + \text{constant}.$$

One (+1 SD) was substituted in the equation for high levels of factors, 0 (M) for medium levels, and -1 SD

Table 8

Hierarchical Regression of Hopkins Symptom Scores with
Problem Solving/Cognitive Coping and Enacted Support

	Black n=90			Hispanic n=111			White n=99		
	ΔR^2	β	B	ΔR^2	β	B	ΔR^2	β	B
Step 1	.06			.11***			.03		
SES		-.03	-.03		-.13	-.14		.03	.03
Sex		.26	.26		.29***	.27		.18	.19
Age		.00	.00		.04	.04		-.02	-.02
Step 2	.06*			.13***			.27***		
Stress		.26*	.28		.35***	.33		.54***	.51
Step 3	.00			.02			.02		
Enacted Support		.01	.01		.15	.14		.17	.20
Step 4	.10***			.01			.05**		
Coping		.35***	.33		.12	.11		.27**	.30
Step 5	.00			.02			.00		
Stress x Enacted Support		-.01	-.01		.14	.12		.02	.02
Step 6	.00			.02			.01		
Stress x Coping		.08	.08		-.16	-.16		.13	.15
Step 7	.00			.00			.00		
Coping x Enacted Support		.01	.01		.07	.06		.12	.15
Step 8	.04*			.00			.02		
Stress x Enacted Support x Coping		-.26*	-.22		.00	.00		.19	.21
*p<.05 **p<.01 ***p<.001									
		R=.530		R=.554			R=.647		
		R ² =.282		R ² =.307			R ² =.418		

for low levels of the factors. This technique generated 27 equations. A comparison of the results of the equations revealed a conjunctive moderating effect for Black students. For this group, high stress, low use of Problem Solving/Cognitive Coping, and low Enacted Social Support was associated with lower levels of symptomatology.

This same regression equation was repeated to test for sex differences. Main-effects were observed for Life Stress for both sexes. In both groups, high stress was associated with higher levels of psychological symptomatology as measured by the Hopkins Symptom Checklist. Problem Solving/Cognitive Coping was a highly significant predictor of increased Hopkins Symptom Checklist scores for females and only a marginally significant predictor for males. Regression analyses revealed a main-effect for Enacted Social Support (ISSB) for females. Enacted Social Support was positively related to Hopkins Symptom Checklist scores. No main-effect for Enacted Social Support was found for males. The tests for interactions were nonsignificant for both males and females.

Resigning/Externalizing Coping and Enacted Social Support. As shown in Table 9, significant main-effects for Resigning/Externalizing Coping were found for all three ethnic/racial groups. Consistently, this coping strategy was associated with higher levels of psychological

Table 9

Hierarchical Regression of Hopkins Symptom Scores with
Resigning/Externalizing Coping

	Black n=89			Hispanic n=107			White n=98		
	ΔR^2	β	B	ΔR^2	β	B	ΔR^2	β	B
Step 1	.07			.12**			.03		
SES		-.04	-.04		-.14**	-.15		.04	.04
Sex		.26*	.26		.30**	.28		.18	.20
Age		-.01	-.01		.05	.05		-.02	-.02
Step 2	.06*			.12***			.26***		
Stress		.25*	.28		.34***	.32		.54***	.50
Step 3	.00			.02			.02		
Enacted Support		.01	.01		.16	.14		.16	.20
Step 4	.11***			.19***			.16***		
Coping		.34***	.32		.47***	.46		.45***	.47
Step 5	.00			.00			.00		
Stress x									
Enacted Support		-.06	-.06		.09	.08		.08	.09
Step 6	.09***			.00			.01		
Stress x Coping		-.33***	-.35		-.03	-.03		.13	.10
Step 7	.00			.03*			.01		
Enacted Support x Coping		-.02	-.01		-.19*	-.18		.14	.15
Step 8	.04*			.00			.00		
Stress x Enacted Support									
x Coping		-.25*	-.22		-.02	-.02		.02	.01
* $p < .05$ ** $p < .01$ *** $p < .001$									
R = .617 R = .702 R = .710									
R ² = .381 R ² = .493 R ² = .500									

symptomatology. Two main-effects were observed for White adolescents. Both Life Stress and Resigning/Externalizing Coping were significant predictors of higher Hopkins Symptom Checklist scores for this group.

A significant two-way interaction between Enacted Social Support and Resigning/Externalizing Coping was found for Hispanic adolescents. The combination of low use of Resigning/Externalizing Coping strategies and low Enacted Social Support was associated with lower symptoms for this group.

In addition, a conjunctive moderating effect (three-way interaction) of Life Stress x Enacted Social Support x Resigning/Externalizing Coping was significant for Black adolescents. For Black adolescents, the joint effects of low numbers of stressful life events, low use of Resigning/Externalizing Coping strategies, and high Enacted Social Support was associated with lower levels of psychological symptomatology.

Separate regression equations for males and females revealed a main-effect for Resigning/Externalizing Coping. These strategies were associated with higher levels of psychological symptomatology. For females, Enacted Social Support was also a positive predictor of higher levels of psychological symptomatology.

Seeking Family Social Support Coping and Enacted Support. As shown in Table 10, Seeking Family Social Support

Table 10
Hierarchical Regression of Hopkins Symptom Scores with
Seeking Family Support Coping and Enacted Support

	Black n=88			Hispanic n=106			White n=98		
	ΔR^2	β	B	ΔR^2	β	B	ΔR^2	β	B
Step 1	.06			.13*			.04		
SES		-.04	-.05		-.14	-.15		.04	.04
Sex		.26*	.25		.31**	.29		.18	.18
Age		-.01	-.01		.06	.06		-.02	-.02
Step 2	.06*			.12***			.26***		
Stress		.26*	.27		.34***	.32		.54***	.50
Step 3	.02			.01			.00		
Coping		.16	.14		-.12	-.11		.02	.02
Step 4	.11			.03*			.02		
Enacted Support		-.02	-.02		.17*	.15		.18	.22
Step 5	.05*			.01			.00		
Stress x Coping		-.25*	-.23		-.12	-.10		.10	.10
Step 6	.00			.03*			.00		
Stress x Enacted Support		.06	.06		.21*	.18		-.04	-.04
Step 7	.00			.01			.00		
Enacted Support x Coping		.08	.07		.12	.10		-.02	-.02
Step 8	.00			.00			.02		
Stress x Enacted Support x Coping		-.21	-.07		-.09	-.03		.38	.20
*p<.05 **p<.01 ***p<.001									
		R=.468		R=.590			R=.594		
		R ² =.219		R ² =.345			R ² =.352		

Coping was not a significant predictor for any ethnic/racial group. Only a main-effect for Life Stress was significant for White adolescents. For Black and Hispanic adolescents, significant two-way interactions were observed. For Black adolescents, the interaction of Seeking Family Support x Life Stress predicted lower symptomatology. For Black adolescents reporting high levels of Life Stress during the last year and who reported high use of Seeking Family Social Support, a stress buffering effect occurred. In contrast, the joint effects of high stress and high Enacted Social Support enhanced the effects of stress experienced by Hispanic adolescents.

Main-effects for Life Stress were observed for both males and females. Seeking Family Social Support Coping was marginally significant for males. For males, higher use of this coping strategy was associated with higher symptomatology. In contrast, Enacted Social Support was a significant predictor of higher symptomatology for females. None of the interactions was significant.

Analyses of the test of Suppression Hypothesis.

Hypothesis 2, was a test of the suppression hypothesis. Stated simply, if this hypothesis is supported, provision of aid to individuals under high stress would lower their symptoms. In this situation Enacted Social Support would be positively correlated with stress and negatively correlated with psychological symptomatology. In addition, the partial

correlation between Enacted Social Support and health symptomatology after controlling for stress would be larger when a suppression effect was present. The zero-order correlation between Enacted Social Support and the criterion (Hopkins Symptom Checklist Scores) was $r=.12$. After controlling for stress, the partial correlation was $r=.15$. Since there was no significant difference between the zero-order and the partial correlation, the suppression hypothesis was not supported. A significantly larger sample may have allowed detection of a somewhat modest suppression effect.

Interactive Hypothesis. The final hypothesis, Kessler's interactive hypothesis, stated that lower socioeconomic status Black and Hispanic adolescents would be more adversely impacted and would exhibit higher psychological symptoms than lower socioeconomic status White adolescents. To test this hypothesis, hierarchical multiple regression was performed. The order of entry of the variables was dictated by Kessler's Hypothesis. First, demographic variables (i.e., age, sex, and SES) with the exception of the categorical variable ethnicity/race. Although ethnicity/race is a demographic variable, it was entered on a later step in order to determine its relative additional importance in predicting symptomatology. The other predictor variables were life stress, ethnicity/race (which was effects coded with Blacks=-1; Hispanics=0; and Whites=1), the interaction term of ethnicity/race x SES, the interaction term Life Stress x

ethnicity/race, and the interaction term of Life Stress x ethnicity/race x SES. Although Kessler's hypothesis only involved a test for main-effects of ethnicity/race, SES, and the interaction term of ethnicity/race x SES, the present author chose to do exploratory tests for an interaction of stress x ethnicity/race and the three-way interaction of Life Stress x ethnicity/race x SES.

Neither of the main-effects (i.e., ethnicity/race or SES) was significant. Likewise, the two-way interaction of ethnicity/race x SES and the three-way interaction (Life Stress x ethnicity/race x SES) were significant. Kessler's hypothesis that socioeconomic status interacted with ethnicity/race, thereby causing lower SES minority individuals to be more negatively impacted, was not supported. Although Kessler's interactive hypothesis was not supported, the two-way interaction term of Life Stress x ethnicity/race reached near significance at this step ($\beta = .08$, R^2 change, step 5, $= .006$, $p = .085$,). Closer examination of the regression lines generated by equation $Y = \beta_{\text{stress}}(\text{Stress}) + \beta_{\text{race}}(\text{Race}) + \beta_{\text{stress} \times \text{race}}(\text{Stress} \times \text{Race}) + \text{constant}$ for step 5 of the equation, revealed that ethnicity/race enhanced the effects of stress for White adolescents. Effects coding was again substituted in the equation for the categorical variable ethnicity/race. High levels of stress was coded as +1 SD, medium levels of stress as 0, and low levels of stress was coded -1 SD (z-score

transformed scores). White adolescents under high stress were more distressed than either Hispanic or Black adolescents.

Group Differences

Although formal hypotheses were not made, other areas of interest examined in this study were differences in subscale elevations on Hopkins Symptom Checklist, frequency of occurrence of events, appraisal of negative impact, and utilization of specific coping strategies. In addition, the efficacy of specific coping strategies for categories of most negative events was examined.

Oneway analyses of variance (ANOVAs) were computed to examine ethnic/racial differences for the following scores: Problem Solving/Cognitive Coping, Resigning/Externalizing Coping, and Seeking Family Support Coping; Hopkins Symptom Checklist total and subscales; abbreviated Inventory of Socially Supportive Behaviors; Life Events Inventory and Negative Impact Rating of Events; and Hollingshead Four-factor Index of Socioeconomic Status. The alpha level was set at .05. Adjusting alpha so that the family-wise error rate did not exceed .05 would have meant setting the alpha at .0005 thus, reducing the likelihood of detecting clinically significant differences. Although setting alpha at .05 significantly increased the probability of Type I errors, it was judged as acceptable given the strictly exploratory nature of these analyses. Three significant ethnic/racial

differences were found in this sample of students using Tukey B difference test. First, Black and White adolescents came from higher socioeconomic backgrounds, $F(2,336)=16.18$, $p < .01$, than Hispanic adolescents. Second, Black and Hispanic adolescents received higher levels of Enacted Social Support in the last month than did White adolescents, $F(2,333)=12.50$ $p < .01$. Third, White adolescents reported having experienced a greater number of events which were rated as having a negative impact in the past year than did Black and Hispanic adolescents, $F(2,336)=4.72$, $p < .01$.

No ethnic/racial differences were found for the use of specific coping strategies (i.e., Problem Solving/Cognitive Coping, Seeking Family Support Coping, etc.). No ethnic/racial differences were found for psychological symptomatology, as measured by the Hopkins Symptom Checklist total score. When Black, Hispanic, and White adolescents were compared on the subscales of the Hopkins Symptom Checklist, there were no ethnic/racial differences found. No ethnic/racial differences were found among the groups when compared on the subscales of the Hopkins Symptom Checklist.

Differences in events experienced. The reader is reminded that only events endorsed as having occurred and as having a negative impact were counted as stressful events. Table 11 provides the data to examine ethnic/racial differences on specific events experienced in the last year. For each event, the chi-square statistic for equality of

proportions was computed. As previously mentioned, the alpha level was set at .05. No adjustments were made for family-wise error rate because of the exploratory nature of these analyses. Fourteen events were found to be statistically different at the $p < .05$ (not adjusted for family-wise error rate for 49 tests). Relative to Hispanic adolescents, Black and White adolescents more often experienced the loss of a close relative. In addition, White adolescents more often experienced family events (i.e., divorce, fight with parent, etc.) than did Black or Hispanic adolescents. The chi-square statistic for equality of proportions was also computed to compare frequency of occurrence of events for females and males. Twelve events were found to be different for males and females (see Table 11). Of these 12 differences, only one event, "trouble with the law," was experienced more often by males than females (26.4% vs 11.2%).

For exploratory purposes, oneway analysis of variance was used to detect ethnic/racial differences in average negative impact ratings and t-tests were employed to test for sex differences. Reported in Table 12 are the Ms and SDs of average impact ratings for each event. No significance levels are shown because none of the comparisons was less than .0009, the significance level needed to keep the family-wise error rate below .05. It was judged that items reaching alpha level of .05 merited discussion. White adolescents judged death of a close friend as more negative than did

Table 11

Comparisons of Occurrences of Life Events in Past 1 Year
by Ethnic/Racial Group and Sex

	<u>Ethnic/Racial Differences</u>					<u>Sex Differences</u>	
	Total	Black	Hispanic	White	χ^2	Male	Female
	Events	Students	Students	Students	df=2	Students	Students
	\bar{M}	\bar{M}	\bar{M}	\bar{M}		\bar{M}	\bar{M}
1. Death of a close friend	93	22	42	29	3.59	37	56
2. Death of family member	138	48	41	49	7.26*	53	85
3. Seriously ill or hospitalized	40	13	14	13	0.21	15	25
4. Family member ill or hospitalized	135	41	44	50	4.40	52	83
5. Trouble with the law	60	11	19	30	12.72**	39	21
6. Friends in trouble with law	109	25	41	43	6.64*	42	66
7. Parental figures separated	55	19	14	22	4.81	15	40
8. Parental figures divorced	45	12	10	23	10.39**	16	29
9. Family income decreased	88	20	32	36	6.14*	31	57
10. Arrest of family member	76	23	26	27	1.03	25	51
11. Moved from one parental figure to other	36	10	10	16	3.55	12	24
12. Moved to new school	72	14	30	28	5.74*	31	41
13. Parental figure lost job	60	17	21	22	1.03	26	34
14. Failed in attempt to make team activity	39	9	11	19	6.34*	18	21

Table 11 (Continued)

	Ethnic/Racial Differences					Sex Differences	
	Total	Black	Hispanic	White	χ^2	Male	Female
	Events	Students	Students	Students	df=2	Students	Students
	n	n	n	n	n	n	n
15. Became engaged or married	15	3	4	8	3.60	6	9
16. Weight change	106	26	42	38	3.01	28	78
17. Change in personal appearance	76	20	37	19	4.55	26	50
18. Attraction not reciprocated	125	25	46	54	16.62***	45	80
19. Suspended from school	30	14	10	6	4.32	18	12
20. Broke up with boyfriend/girlfriend	140	40	45	55	7.75*	49	91
21. Brother or sister left home	51	14	22	15	0.62	19	32
22. Parent and step-parent married	27	11	6	10	3.30	12	15
23. Began senior high school year	8	3	2	3	0.61	4	4
24. Had a visible handicap	17	4	4	9	4.03	7	10
25. Became pregnant/fathered pregnancy	21	10	8	5	3.07	11	10
26. Problems with teachers/administrators	105	36	35	34	1.74	43	62
27. Had to be in special education class	15	3	9	3	3.14	9	6
28. No pass, no play rule enforced	40	16	9	15	4.86	17	23

Table 11 (Continued)

	Ethnic/Racial Differences						Sex Differences		
	Total	Black	Hispanic	White	χ^2	Male	Female	χ^2	
	Events	Students	Students	Students	df=2	Students	Students	df=1	
	\bar{n}	\bar{n}	\bar{n}	\bar{n}		\bar{n}	\bar{n}		
29. Another adult moved in with family	38	13	18	7	3.34	13	25	1.73	
30. Birth of brother or sister	28	7	14	7	1.78	13	15	0.06	
31. Sexual experience not agreed to	11	4	5	2	0.89	3	8	1.32	
32. Sexual experience agree to	62	19	20	23	1.58	18	43	5.65*	
33. Committed a crime	48	8	17	23	8.70*	25	23	1.42	
34. Fight with parental figure	163	35	56	72	26.97***	54	109	15.72***	
35. Fight/conflict with a friend	139	34	43	62	19.95***	49	90	7.68**	
36. Harassed because of race	75	20	25	30	3.52	36	39	0.57	
37. Violent crime in school/neighborhood	103	28	34	41	5.19	39	64	2.41	
38. Gang activity in school/neighborhood	96	29	35	32	0.33	38	58	1.15	
39. Failed one or more school subjects	151	48	54	49	0.73	64	87	0.36	
40. Had to care for younger siblings	55	13	26	16	2.51	21	34	0.96	
41. Used alcohol and/or drugs	72	12	27	33	12.13**	34	38	0.34	
42. Teacher favored other students	102	29	35	38	2.56	41	61	0.94	

Table 11 (Continued)

	Ethnic/Racial Differences					Sex Differences		
	Total	Black	Hispanic	White	χ ²	Male	Female	χ ²
	Events	Students	Students	Students	df=2	Students	Students	df=1
n	n	n	n	n	n	n	n	n
43. Other activities interfered with school	93	27	34	32	0.63	33	60	3.95*
44. Started to carry weapon for protection	27	7	10	10	0.54	16	11	2.71
45. Learned others had weapons at school	116	36	42	38	0.36	108	111	6.76**
46. Involved in a fight	54	14	17	23	3.93	21	33	0.73
47. Parental figures fought or argued	124	24	50	50	13.57***	47	77	3.14
48. Close relative in trouble	46	8	21	17	4.36	15	31	2.89
49. Tests, grades, or schoolwork poor	48	22	20	6	10.69**	16	32	2.67

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

Table 12

Impact Ratings of Life Events Occurring in Past 1 Year
by Ethnic/Racial Group and Sex

	Ethnic/Racial Differences						Sex Differences			
	Black Students		Hispanic Students		White Students		Male Students		Female Students	
	m	sd	m	sd	m	sd	m	sd	m	sd
1. Death of a close friend	3.50	1.19	3.64	1.21	4.14	1.22	3.54	1.23	3.91	1.23
2. Death of family member	3.67	1.28	3.61	1.16	3.53	1.19	3.32	1.15	3.77	1.20
3. Was seriously ill or hospitalized	2.77	0.93	3.64	1.34	3.92	1.19	3.33	1.13	3.52	1.19
4. Family member ill or hospitalized	3.07	1.15	3.25	1.12	3.26	1.05	2.96	1.08	3.34	1.08
5. Trouble with the law	3.09	1.30	3.05	1.27	3.27	1.05	3.05	1.05	3.38	1.13
6. Friends in trouble with law	2.64	0.91	2.98	1.01	2.98	1.06	2.78	1.06	2.98	0.96
7. Parental figures separated	3.37	1.30	4.07	1.14	4.00	1.11	3.60	1.18	3.87	1.22
8. Parental figures divorced	3.17	1.27	3.70	1.34	3.78	1.17	3.25	1.28	3.79	1.21
9. Family income decreased	3.10	1.07	2.94	1.11	3.58	1.08	3.10	1.10	3.31	1.12
10. Arrest of family member	2.91	1.08	3.12	1.14	3.19	1.11	2.75	1.50	3.43	1.16
11. Moved from one parental figure to other	3.50	1.35	4.20	1.32	3.56	1.15	5.00	0.00	4.00	1.41
12. Moved to new school	2.64	0.84	2.83	1.21	3.57	1.14	3.50	2.12	2.91	1.38
13. Parental figure lost job	3.35	1.11	3.05	1.28	3.45	1.06	3.00	1.41	3.62	1.30
14. Failed in attempt to make team activity	2.78	0.44	2.82	1.08	3.16	1.01	4.00	0.00	2.00	0.00

Table 12 (Continued)

	Ethnic/Racial Differences						Sex Differences					
	Black Students		Hispanic Students		White Students		Male Students		Female Students			
	m	sd	m	sd	m	sd	m	sd	m	sd	m	sd
15. Became engaged or married	2.33	0.58	3.25	1.50	3.12	1.36	2.77	1.09	3.33	1.50	3.33	1.50
16. Weight change	2.96	1.11	3.07	1.05	3.26	1.13	2.85	0.92	3.20	1.08	3.20	1.08
17. Change in personal appearance	2.75	1.12	2.92	1.14	2.79	1.03	2.76	1.05	2.88	1.10	2.88	1.10
18. Attraction not reciprocated	3.16	1.11	3.28	1.09	3.19	1.12	3.13	1.13	3.26	1.24	3.26	1.24
19. Suspended from school	2.93	1.14	3.00	1.05	3.33	0.82	2.80	1.32	3.33	1.21	3.33	1.21
20. Broke up with boyfriend/girlfriend	2.87	0.97	3.16	1.15	3.29	1.07	3.50	0.84	3.47	1.22	3.47	1.22
21. Brother or sister left home	3.00	1.04	2.86	0.94	3.00	1.20	3.50	0.71	2.89	1.17	2.89	1.17
22. Parent and step-parent married	4.18	1.17	2.83	1.17	3.20	1.32	3.17	1.19	3.33	1.53	3.33	1.53
23. Began senior high school year	3.67	1.53	4.00	0.00	3.00	1.00	3.75	1.26	3.25	0.96	3.25	0.96
24. Had a visible handicap	2.75	0.96	2.25	0.50	3.11	0.93	2.71	1.11	2.87	0.74	2.87	0.74
25. Became pregnant/fathered pregnancy	3.20	1.03	3.33	1.37	2.80	0.84	2.80	0.50	5.00	0.00	5.00	0.00
26. Problems with teachers/administrators	2.92	0.97	2.71	0.86	2.88	1.01	2.67	1.12	2.81	0.98	2.81	0.98
27. Had to be in special education class	2.33	0.58	3.56	1.24	3.00	1.00	3.11	1.17	3.33	0.42	3.33	0.42
28. No pass, no play rule enforced	3.37	1.20	3.67	1.32	3.20	1.01	3.00	1.12	3.67	1.11	3.67	1.11

Table 12 (Continued)

	Ethnic/Racial Differences						Sex Differences			
	Black Students		Hispanic Students		White Students		Male Students		Female Students	
	m	sd	m	sd	m	sd	m	sd	m	sd
29. Another adult moved in with family	3.46	1.27	2.72	1.18	2.57	0.79	2.80	1.30	2.43	0.79
30. Birth of brother or sister	3.86	1.21	2.79	0.97	2.57	0.79	3.00	1.13	3.00	1.08
31. Sexual experience not agreed to	3.50	1.73	3.40	1.52	3.50	2.12	2.50	0.71	5.00	0.00
32. Sexual experience agree to	3.00	1.29	3.30	1.22	2.74	1.05	3.00	1.73	3.00	1.32
33. Committed a crime	2.50	0.93	2.59	1.06	3.22	1.13	3.00	1.73	3.00	1.73
34. Fight with parental figure	3.29	1.20	3.12	1.15	3.31	1.06	2.50	0.76	3.24	1.20
35. Fight/conflict with a friend	2.91	1.08	2.86	0.97	3.15	1.02	2.80	1.05	3.11	1.02
36. Harassed because of race	3.20	1.24	3.52	1.19	3.20	1.03	3.16	1.15	3.43	1.12
37. Violent crime in school/neighborhood	2.96	1.04	2.97	1.06	3.10	1.11	2.83	1.12	3.14	1.02
38. Gang activity in school/neighborhood	3.00	1.20	3.37	1.19	3.12	1.10	3.62	1.41	3.50	1.21
39. Failed one or more school subjects	3.00	1.09	3.13	1.03	3.29	1.10	2.67	0.62	3.48	1.27
40. Had to care for younger siblings	2.85	0.99	2.85	1.01	2.69	0.70	2.33	0.58	3.00	1.15
41. Used alcohol and/or drugs	2.92	1.08	2.81	1.21	2.76	1.03	2.50	0.86	3.05	1.14
42. Teacher favored other students	2.93	1.10	3.03	1.18	2.74	0.86	2.63	0.73	3.17	1.34

Table 12 (Continued)

	Ethnic/Racial Differences				Sex Differences					
	Black Students		Hispanic Students		White Students		Male Students		Female Students	
	m	sd	m	sd	m	sd	m	sd	m	sd
43. Other activities interfered with school	3.11	1.01	3.32	1.09	3.22	1.13	3.14	0.90	3.25	1.29
44. Started to carry weapon for protection	3.29	1.60	2.80	1.03	2.40	0.70	2.93	1.34	2.55	0.68
45. Learned others had weapons at school	2.72	0.91	3.14	1.07	3.11	1.06	2.60	0.55	3.12	1.27
46. Involved in a fight	2.50	0.55	3.70	1.16	3.12	0.86	3.05	0.89	3.38	1.12
47. Parental figures fought or argued	3.21	1.22	3.22	1.09	3.44	1.21	3.37	0.88	3.19	1.09
48. Relative in trouble for drugs/alcohol	3.24	1.20	3.20	1.19	3.58	1.21	2.57	0.79	3.44	1.01

Note. Item 31 only appeared on 3rd revision of questionnaire

Black or Hispanic adolescents. For Hispanic and White adolescents, divorce or separation of parents was more negatively rated. In contrast, Black adolescents rated marriage of parent to step-parent, another adult moving into household, and birth of a sibling as more negative than did Hispanic or White adolescents.

As shown in Table 12, generally females tended to rate events more negatively than did males. For females, personal illness or family member illness were more negatively rated. Pregnancy was rated as extremely negative by females. Fathering a pregnancy had less of a negative impact for males as compared to pregnancy for females. Although there was no sex difference in the impact rating for the event "had a sexual experience that you agreed to," the event "had a sexual experience that you didn't agree to," was rated more negatively by females.

Although there were no differences evident across the three coping factors (i.e., Problem Solving/Cognitive Coping, Resigning/Externalizing Coping, or Seeking Family Support Coping), examination across individual items on the inventory revealed differences. Again the reader is reminded that these were strictly exploratory analyses. In order to keep the family-wise error rate below .05, alpha would have had to have been set at .0009.

Differences discussed here would have been marginally significant if not for the stringent alpha level. More White

adolescents reported receiving sympathy from friends than Hispanic and Black adolescents. In contrast, Hispanic adolescents reported the highest use of the coping strategy, "I talked to my siblings," followed by Black adolescents, and White adolescents. More Black and Hispanic adolescents reported use of the strategy, "I got support from relatives not parents," than White adolescents. In contrast to what has been suggested in the literature, there were no ethnic/racial differences in use of the coping strategy "I got professional help (not from a teacher or school counselor)."

Effects of Coping Strategies for Most Stressful Event Categories. To test whether specific coping strategies were effective for categories of stressful events, regression analyses were performed with specific categories of stressful events. The categories of stressful events were as follows: 1. Network Loss Events (i.e, death of family member, parents divorced, etc.), 2. Family Events (i.e, parents had fight, etc.), 3. School Events (i.e., failed grade, etc.) 4. Financial Events, 5. Negative Environment Event, 6. Sexual Intimacy Event, and 7. Personal Illness Victimization Events (see Appendix O for items in the categories which were analyzed). Students were asked to indicate the most stressful event they had experienced in the last year and asked to indicate how often they had used specific coping strategies to deal with that particular stressor. Because of

small numbers of adolescents endorsing certain categories of events, regression analyses could only be conducted for Network Loss Events, Family Events, and School events.

Hierarchical multiple regression analyses were performed for each of the previously mentioned categories of events. Unlike in previous regression analyses, no separate analyses were performed for each ethnic/racial group or for males and females because the ratio of predictors to number of cases would have been less than what is recommended for regression. The predictor variables were stressful life events, Enacted Social Support, Problem Solving/Cognitive Coping, Resigning/Externalizing Coping, and Seeking Family Social Support Coping. Demographic variables (i.e., sex, age, and SES) were entered on the first step to statistically control for their effects. The other predictor variables were entered in the following order: step 2, stressful events score; step 3, Enacted Social Support, and all three coping strategies.

The only coping factor that emerged as effective in decreasing distress for students whose most stressful event was a network loss event was high use of Seeking Family Support Coping ($\beta = -.39$, $p < .001$). Significant predictors of distress were as follows: Problem Solving/Cognitive Coping ($\beta = .21$, $p < .01$), Resigning/Externalizing Coping ($\beta = .50$, $p < .0000$), Enacted Social Support ($\beta = .33$, $p < .001$, and stress ($\beta = .20$, $p < .05$).

For students reporting their most stressful event as a family event, none of the three coping strategies decreased symptomatology. Although none of the coping strategies decreased symptomatology, SES was negatively associated with distress ($\beta = -.48$, $p < .01$). Enacted Social Support ($\beta = .50$, $p < .01$.) and Resigning/Externalizing Coping ($\beta = .45$, $p < .01$) were associated with increased distress.

Finally, for students who reported that their most stressful event was a school event, none of the coping strategies was effective in reducing distress. Only the Resigning/Externalizing Coping strategy was statistically significant in predicting distress ($\beta = .46$, $p < .001$).

CHAPTER IV

DISCUSSION

The purpose of the present study was to identify differences in types of stressors experienced, coping strategies, and social support resources among Black, Hispanic, and White groups of adolescents. In much of the previous research, ethnicity/race and socioeconomic status have been confounded, making it difficult to disentangle differences that were due to ethnicity/race and differences due to socioeconomic status. The present study included Black, White, and Hispanic adolescents from a variety of socioeconomic backgrounds so that differences due to ethnicity/race and differences due to economic status could be disentangled.

Hypothesis 1

Hypothesis 1 predicted the joint effects of social support and coping strategies would lessen the impact of stress. In addition, the hypothesis predicted a buffering effect would occur with Problem Solving, Cognitive coping, and Adult Social Support. However, confirmatory and exploratory factor analysis indicated that this factor structure was not appropriate for the present sample. Most of the items from Wills' (1985) problem solving and cognitive factors loaded together onto a single factor which is

referred to in the present study as Problem Solving/Cognitive Coping. Additionally, items from Wills' (1985) aggression and substance use factors loaded together onto a factor referred to in the present study as Resigning/Externalizing Coping. Of the 11 coping factors, only the adult support factor was confirmed (Wills, 1985). In the present study, this factor was renamed Seeking Family Support Coping because some of the items were reworded. These three factors, Problem Solving/Cognitive Coping, Resigning/Externalizing Coping, and Seeking Family Support Coping were used to test hypothesis 1.

Overall, Problem Solving/Cognitive strategies were associated with increased symptomatology across ethnic/racial and gender groups. Although there was a conjunctive moderating effect for Problem Solving/Cognitive Coping (three-way interaction), it was the specific pattern of low use of this strategy and low Enacted Social Support that was associated with lower symptoms for Black adolescents.

In previous research studies, problem solving and cognitive strategies have not been combined and studied as single factor. Most researchers have compared problem-focused coping to emotion-focused coping. The present author is unaware of any study that has utilized a coping factor that included both types of strategies on one factor. This combination of problem-solving coping strategies and cognitive coping strategies (emotion-focused coping) may

explain why the positive effects of problem solving strategies previously reported by other researchers (Compas et al., 1986; Patterson & McCubbin, 1987; Wills, 1986) to not be detected in the present study.

While problem focused coping has consistently been associated with a positive outcome both in the adult literature (e.g., Stone, Helder, & Schneider, 1986) and the child literature (Compas et al., 1986; Patterson & McCubbin, 1987; Wills, 1986), this has not been the case with cognitive coping (emotion-focused coping). What may account for these inconsistent findings is that in some instances researchers have asked respondents to anticipate how they would cope with a specific stressful event such as failing a grade (Brown et al., 1986) and in other instances researchers have asked how individuals actually had coped with specific stressful situations (Compas et al., 1987). Individuals who anticipate an event and who are measured on some outcome measure (i.e., anxiety measure) may differ substantially from individuals who have responded to an event that they have experienced as stressful.

In the present study, the most stressful event for the majority of the sample was a network loss event or a family event. An example of a network loss event is death of a close relative, death of a close friend, or divorce of parents. Family events included events such as arrest of a family member or parents fighting. In these types of

situations, the adolescent may have very little control of the stressful event. Therefore, for this type of stressful event, problem solving strategies may not be very effective in reducing the stress. This may account for the findings that problem solving/cognitive strategies were associated with increased distress in the present study. These findings are consistent with Forsythe and Compas (1987) findings that it is important that the coping strategy used to cope with a stressor fit the stressful event. In their study of college undergraduate students, they found that symptoms were increased when students used problem-focused coping for uncontrollable major events and lower when emotion-focused coping was employed for uncontrollable major events.

Resigning/Externalizing Coping was positively associated with distress for all groups. Two ethnic/racial group differences occurred. For Hispanic adolescents, the joint effects of Resigning/Externalizing Coping and high Enacted Social Support were associated with higher distress. For Black adolescents, low Life Stress, high Enacted Social Support, and low use of Resigning/Externalizing Coping were associated with lower symptoms. It is not clear from the social support measure used in the present study whether the support received was from peers or from family members, or whether the support received was satisfactory. All of these factors have been shown to affect the stress outcome. For example, peer support has been found to be associated with

negative outcome in adolescents (Wills, 1986). Nevertheless, the results of the present study are consistent with the findings of Cauce and her colleagues (Cauce et al., 1982). In their study of at-risk adolescents, Hispanic and White adolescents rated the perceived helpfulness of parents and other relatives lower than Black adolescents. In addition, Wills (1986) found a stronger relationship of adult support to substance use among Hispanic students compared with White and Black students. Wills' finding that adult support was associated with substance use could be considered support for the support mobilization hypothesis (Barrera, 1988). That is, as students experienced higher levels of stress, more adult support was given.

In the present study, Enacted Social Support was positively associated with Life Stress. Griffith and Villavicencio (1985) also found a positive relationship between increased social network size and distress for less acculturated Mexican Americans. They speculated that as personal distress rose, more support was sought from relatives and friends. This probably explains the positive relationship of high stress and high Enacted Social Support observed in the present study. As individuals experience higher levels of Life Stress, higher levels of Enacted Social Support are provided by the affected person's social network, thus leading to the positive association between high Enacted Social Support and distress. At some subsequent time,

Enacted Social Support may lead to a reduction in distress which would not be detectable in the present cross-sectional study. Anehensel and Frerichs (1982) utilizing a longitudinal design, found that actual support was negatively related to depression. Findings in the present study suggest that the positive association of Enacted Social Support with distress may actually reflect supportive members of the adolescent's network coming to his or her aid rather, than the ineffectiveness of this variable to decrease symptomatology.

The hypothesis that adult support would buffer the effects of stress was only supported for Black adolescents. Black adolescents under high stress who reported high use of the Seeking Family Support strategy experienced lower symptomatology. It is interesting that the main-effects for Seeking Family Social Support Coping were positively associated with symptomatology (though nonsignificant) for both Black and White adolescents but negatively associated with distress for Hispanic adolescents. It is also interesting that the interaction of Life Stress x Enacted Social Support x Seeking Family Support Coping for Hispanic adolescents was negatively related (though nonsignificant) to symptomatology. In addition, for White adolescents, the interaction of Enacted Social Support x Seeking Family Support Coping was negatively associated (though nonsignificant) with symptomatology. These findings suggest

that Enacted Social Support and Seeking Family Social Support may act as conjunctive moderator variable. That is, their combined effects may enhance the relationship between Life Stress and symptomatology. Given the fact that powerful statistical techniques or large sample sizes are needed to detect conjunctive moderator effects, it is likely that the present study lacked sufficient statistical power to detect a conjunctive moderator effect.

Hypothesis 2

The hypothesis that Enacted Social Support would be negatively associated with distress was not supported. Enacted Social Support was consistently positively associated with distress. Stress decreasing effects were only observed when it was combined with other moderator variables to create an interaction (i.e., Enacted Social Support x Coping). It is likely that in addition to a suppression effect, Enacted Social Support may also have a conjunctive moderating effect as was observed in the present study. As previously mentioned, Sandler and Lakey (1982) found a conjunctive moderating effect for individuals under high stress, classified as having an internal locus of control, and high receipt of social support. Like the present study, they used the ISSB to measure Enacted Social Support. In the present study, stress decreasing effects of Enacted Social Support were only observed in the specific combination of the following variables: 1. Black adolescents under high stress,

reporting low use of problem solving/cognitive coping and low Enacted Social Support; 2. Black adolescents under low levels of stress, reporting low use of Resigning/Externalizing Coping, and high Enacted Social Support. The present study utilized cross-sectional design and it is likely that a longitudinal study would be a better design in which to test the suppression hypothesis. The suppression effect has been supported using just such a design (Anehensel & Frerichs, 1982).

Kessler's Interactive Hypothesis-Hypothesis 3

Although Kessler's interactive hypothesis was not supported, it led to a serendipitous finding, that minority status may serve as a stress moderator. It is important to note that although this interaction (i.e., ethnicity/race x stress) was nonsignificant, the amount of variance it accounted for was over and above what had been accounted for by variables entered in the hierarchical regression equation at earlier steps. The reader is reminded that there was no statistical difference between the White adolescent group and the Black adolescent group on SES variable.

Although other researchers (Kessler, 1986; Ulbrich et al., 1989) have not reported these findings, their research designs were arranged to test for main-effects of race, SES, and an interaction of race x SES. Ulbrich and his colleagues found that while undesirable events were more often experienced by Black participants in the lowest SES category,

this was not the case in middle and upper SES categories of Black participants. There are two explanations why Gad and Johnson (1980) did not find differences in life change scores between Black and White adolescents. First, they had a small sample which consisted of 64 Black adolescents (36% middle/upper class and 64% lower class) and 98 White adolescents (64% middle/upper class and 36% lower class). Secondly, they used analysis of covariance with SES as a covariate. Use of this type of design would have severely limited the probability of detecting an interaction of race x stress.

It does not appear that social desirability accounted for the lower life stress scores for Black and Hispanic adolescents as the Marlowe-Crowne, a measure of social desirability, was uncorrelated with life stress score for each of the three groups to which this inventory was administered. One possible explanation for this finding may be that White adolescents in the site in which these data were collected constitute a numeric minority. Smith (1985) said, "...being a member of a numerical minority has a great deal to do with the stress one encounters, regardless of one's race" (p. 548-549).

Effects for Coping Strategies

Another objective of the present study was to investigate which coping strategies were effective in reducing psychological symptomatology for specific categories

of stressful life events. Seeking Family Social Support emerged as a significant predictor of decreased distress when the event involved the loss of someone in the person's network. Many of the students in the present study indicated that their most stressful event was a network loss event (i.e., death of a relative). In these situations problem solving would not be expected to decrease symptoms. Use of Resigning/Externalizing Coping strategies such as "taking it out on someone," or using "pills to feel better," might have the effect of isolating the person from family members who might provide needed support. In addition, use of these strategies would probably put the person at high risk to experience more stressful events. This finding is consistent with Forsythe and Compas (1987) findings that it is important that the coping strategy used to cope with a stressor fit the stressful event.

As with network loss events, family events may also be out of the control of students. Since many of the events in this category are indicative of family dysfunction (i.e., arrest of family member, parent used drugs, etc.), family members may not be very supportive. In these types of situations seeking support from non-supportive family members would be expected to increase distress. As with adolescents whose most stressful event was a network loss event, Resigning/Externalizing Coping would be expected to increase the person's vulnerability to experiencing more stressful

life events in the future. For this type of stressful event, cognitive strategies would be expected to be more effective (Forsythe & Compas, 1987). Although the β for Problem Solving/Cognitive Coping was nonsignificant, it was negatively related to distress. This may indicate that students were using cognitive strategies to deal with this category of event. Since Problem Solving/Cognitive factor includes both problem solving and cognitive coping strategies, it is possible that the effectiveness of cognitive strategies may have been obscured.

Finally, no effective coping strategy was found for students whose most stressful event was a school event. In situations in which individuals can alter an event, Problem Solving Coping would be expected to be effective. Examination of the β for Problem Solving/Cognitive Coping revealed that although it was not significant, it was positively associated with distress. Again, a possible explanation for this finding is that both problem-focused and emotion-focused strategies were combined on one factor and that these cognitive strategies obscured the effects of problem solving.

Group Differences: Expansion of Slavin's Multicultural Model of Stress Process.

Slavin and her colleagues (Slavin et al., 1991) advocated an expansion of the Lazarus and Folkman (1984) stress process model that would include ethnic/racial

variables that might affect the stress process for ethnic/racial minority individuals. Utilizing Slavin's (Slavin et al., 1991) model, relevant ethnic/racial measures of social support, life stress, and coping were used to investigate the stress process in multiethnic/racial urban adolescent population.

Occurrence of event. Slavin (Slavin et al., 1991, suggested that life events inventories used to study the stress process in ethnic/racial minority populations should include events relevant to that population. Although items on the life events inventory utilized in the present study substantially overlapped with items on other life events inventories, their relevance for a multiethnic population was demonstrated from the pilot study data. In addition, nine events thought to be of relevance to ethnic/racial minority adolescents were included. Taking these safeguards insured the relevance of the life events inventories for both minority and majority urban adolescents.

In the present sample of Black, Hispanic, and White adolescents, several differences were observed. Black and Hispanic adolescents experienced fewer events rated as having a negative impact than White adolescents. White adolescents more frequently experienced family events as being more stressful than Black or White adolescents. The events on which White adolescents differed from Black and Hispanic adolescents were parental divorce, parental conflict, fight

with a parent, and decrease in family income. Both Black and White adolescents rated the occurrence of death of a family member more often than Hispanic adolescents. Black adolescents more frequently rated schoolwork as an impactful event than Hispanic or White adolescents. Although Slavin (1991) suggested that events dealing with discrimination because of ethnicity/race may be relevant events for minority populations, this was not the case in the present study. The event "harassed because of your race," was less frequently rated as impactful by Black and Hispanic adolescents than by White adolescents.

Although it has been suggested that minority individuals may experience more stressful life events, in many studies ethnicity/race has been confounded with SES. In other studies, lower SES level Black and Hispanic participants were compared to middle-class White participants. The present study included Black, Hispanic, and White adolescents from a wide range of socioeconomic backgrounds, thus to a large extent reducing the confound between SES and ethnicity/race. Because ethnic/racial status has been confounded with SES in previous studies, the present findings cannot be directly compared to previous findings. However, in studies in which the Black participants were both proportionately fewer than in the present study and also from a smaller range of SES levels than in the present study, only Black participants at the lowest SES levels experienced more stressful life events

than higher SES level Black or White participants. For example, Gad and Johnson (1980) found that once SES was controlled there were no ethnic/racial differences in the experiencing of undesirable events between Black and White adolescents. Likewise, findings from the present study are not inconsistent with Ulbrich and his colleagues (Ulbrich et al., 1980), that only Blacks at the lowest SES level experienced more events than either higher SES level Black or White participants. Since most of the Black participants in the previously mentioned studies were concentrated in the lower SES levels, restriction of range on the SES variable would have made it unlikely for these researchers to detect an interaction of ethnicity/race and stress.

Occurrences of twelve events were found to be different for males and females. Of these 12 differences, only one event, "trouble with the law," was experienced more often by males than females. These findings are consistent with other researchers' findings (Dise-Lewis, 1988; Pryor-Brown, Cowen, Hightower, & Lotyczewski, 1986). One interpretation of these findings may be that society places different expectations on females. For example, events concerning appearance may be more impactful for females because American society places more value on a female's appearance than for males. In the present study, occurrence of interpersonal events and network loss events were reported more frequently by females. An interpretation of this finding might be that females are

socialized to be more expressive and emotionally involved in interpersonal relationships. When these relationships end, females may be more distressed than males (Solomon & Rothblum, 1986).

Primary appraisal. According to Slavin (Slavin et al.), at this stage of the model the person appraises whether the event means threat or harm. In the present study, differences in appraisal of the negative impact of events were compared across ethnic/racial groups. Although these findings were not statistically significant, they are nevertheless clinically interesting. White adolescents judged death of a close friend as more negative than did Black or Hispanic adolescents. For Hispanic and White adolescents, divorce or separation of parents was more negatively rated. In contrast, Black adolescents rated marriage of parent to step-parent, another adult moving into household, and birth of a sibling as more negative than did Hispanic or White adolescents.

Secondary appraisal. In the secondary appraisal stage the person appraises what can be done to reduce the stressful event. Slavin (1991) suggested that cultural factors may affect which institutions or persons are culturally sanctioned to provide help. Since social support has been consistently found to be used by Black and Hispanic individuals in times of distress, comparison were made across groups on Enacted Social Support. The Inventory of Socially

Supportive Behaviors, a measure of Enacted Social Support, was used because it had been validated with a multiethnic adolescent population. Findings from the present study indicate Black and White adolescents differ on receipt of Enacted Social Support. Black and Hispanic adolescents reported receiving higher levels of Enacted Social Support than White adolescents. In the present study Enacted Social Support was positively related to symptomatology. This finding likely reflects the mobilization of the affected persons' social network.

Coping efforts. In the fourth stage of the model, Slavin suggested that coping strategies may be affected by culture. Wills' coping inventory, which was validated with a sample consisting of 50% White and 50% ethnic/racial adolescents, was used. Although there were no differences evident across the three factors (i.e., Problem Solving/Cognitive Coping, Resigning/Externalizing Coping, or Seeking Family Support), examination across each item on the inventory revealed differences. These were not statistically significant, as an alpha level of .0001 would have been needed to keep the family-wise error rate less than .05.

Specific coping items which emerged as clinically interesting, though statistically nonsignificant, differences were in the types of social support used. White adolescents reported receiving sympathy from friends more than Hispanic and Black adolescents. In contrast, Hispanics reported the

highest use of the coping strategy, "I talked to my siblings," followed by Black adolescents, and White adolescents. Black and Hispanic adolescents reported use of the strategy, "I got support from relatives (not parents)," more frequently than White adolescents. In contrast to what has been suggested in the literature, there were no ethnic/racial differences in use of the coping strategy "I got professional help (not from a teacher or school counselor)." A possible interpretation of this finding may be that students used the services of school psychologists that were available to all students in the setting in which these data were collected. This may suggest that minority individuals may be more likely to use mental health services when location and cost are not a barrier.

Although Black, Hispanic, and White adolescents did not differ on use of specific coping factors (i.e., Problem Solving/Cognitive Coping, Resigning/Externalizing Coping, Seeking Family Support Coping) findings from the present study indicate that they may differ in regards to which specific combinations of moderator variables (i.e., Enacted Social Support x Coping) act to enhance the relationship between Life Stress and symptomatology. In addition they differ on type of social support utilized. The present findings suggest that Black and Hispanic adolescents may use social support from family members while White adolescent may seek support from peers.

Adaptational outcomes. At this final stage of the model Slavin suggested (1991) that symptoms may be manifested differently across ethnic/racial groups. To test possible differences the Hopkins Symptom Checklist was used. It has been used with ethnically and racially diverse populations. As previously noted no group differences were found for either the total Hopkins Symptom Checklist score or on any of the subscales scores.

Clinical Implications

As in previous research, findings from the present study suggest that experiencing of stressful events is associated with increased psychological symptomatology. However, which events are appraised as stressful may depend on ethnic/racial status and gender. When conducting assessments, clinicians and therapists may want to question clients about recent major life events and the meaning that event had for the client. In addition, the clinician or therapist may want to take into consideration social resources available to client. When assessing social resources, the clinician or therapist should be mindful of the fact that for Black and Hispanic clients, the support network may include extended family and adult non-family members who may function as family. For White adolescents, the support network may include more peer relationships than for Black and Hispanic adolescents. It may also be important to assess the quality and satisfaction

of the supportive network, as some clients' support networks may be ineffective in providing support.

Findings from the present study support the findings of Forsythe and Compas (1987) that to be effective, coping strategies must match the stressful event. Problem-solving coping, cognitive coping, and seeking social support coping may all be effective in reducing stress depending on the situation. Therefore, it may be important to teach clients how to determine which coping strategies might be effective in specific situations.

Conclusion

The present study must be viewed in the light of several limitations. First, a cross-sectional design was employed. This type of design may be prone to what Brown (1974) referred to as retrospective contamination, which is a situation in which a person with problems may be biased toward reporting more stressful events in order to explain their current level of distress. Also, persons under high levels of distress may be more biased toward rating events as more negative than non-distressed persons. Second, in a retrospective design one cannot infer a causal relationship as correlation does not equal causation. In the present study, it is just as likely that Resigning/Externalizing Coping leads to high psychological symptomatology and the experiencing of increased Life Stress as it is that high Life Stress leads to distress and poor coping. It is not possible

to determine the direction of causality from findings in the present study. Third, although SES was to some extent controlled, there was no control for level of acculturation. It is likely given the high percentage of Hispanic students represented at lower SES levels in the present study, that many of these students may have been first generation Mexican Americans. Given this likelihood, it is possible that some differences observed for Hispanic adolescents may be confounded with level of acculturation. Finally, although the life events inventory employed in the present study appears to adequately sample the domain of events experienced by a multiethnic/racial urban population, its specific psychometric properties have not been established. However, based on findings in the present study, it does adequately predict symptomatology.

Notwithstanding the weaknesses of the design, the present study has one important strength, high external validity. Findings from this study may be more applicable to an urban multiethnic/racial adolescent population than findings from previous studies. In addition, this study to some extent disentangled effects that may be due to socioeconomic status from those due ethnicity/race. Finally, the present study makes a significant contribution to the literature about the stress process in multiethnic/racial adolescent populations.

An examination of the Life Stress literature indicated that a void exists in the empirical knowledge of the Life Stress process in urban multiethnic/racial adolescent populations. The present study has to some extent filled that void. Further research is needed to examine the complex ways in which moderator variables act to enhance the relationship between Life Stress and psychological symptomatology in subgroups of the population. Identification of both protective factors and risk factors could lead to more culturally relevant interventions for these neglected subgroup populations. Future research utilizing longitudinal designs is recommended to determine the direction of causality of Life Stress, Enacted Social Support, and various coping strategies.

APPENDIX A
PARENTAL INFORMED CONSENT LETTER

Adolescent Stress and Coping Study
Parental Informed Consent Form

Dear Parents:

The Dallas Independent School District and the University of North Texas have approved a research project about stressful life events that high school students may encounter and strategies typically used by high school students. This study will involve giving a series of questionnaires to students. Students will be asked about stressful life events, their strategies for dealing with problems, and about how these stressful events affect their health. As some questions ask about events that may have happened to your child, there is a slight chance that he/she may experience some sadness when recalling these events. It will take about 50 minutes to complete this questionnaire. The information provided could be beneficial in the development of programs to teach students more effective coping skills.

This study concerns the experiences of the average high school student. It does not concern any individual student. All questionnaires will be anonymously completed. Your child's responses to questions will remain confidential. The school district will only be provided with information about how the entire group of students answered questions.

Your written permission is needed for your child to participate in the research project. Participation is strictly voluntary. You may withdraw your consent for your child to participate at any time and your child may elect not to participate at any time. Your decision whether or not to allow your child to participate will in no way affect your child's standing in school. If your child participates in the research study, he/she will have the chance of winning one of five \$20 gift certificates which can be redeemed at either Sound Warehouse or Blockbuster stores. Gift certificates will be awarded to winners of a drawing consisting of all those returning questionnaires. To ensure complete confidentiality, questionnaires will be separated from the names entered in the drawing.

Please complete the form below if you give permission for your child to participate in this study. If you have any questions or problems that arise in connection with your child's participation in the study, contact Hazel Prelow, M. S., through Charles Guarnaccia, Ph.D., the project director, at (817) 565-2657. Thank you in advance for your help.

Sincerely,

Hazel M. Prelow, M. S.

_____ cut here _____

Please indicate whether or not you wish to have your child participate in this research study, by signing and returning this statement to your child's teacher by **Month Day Year**.

Print child's name _____ Grade _____

Print your name _____

I do grant permission for my child to participate in this study of adolescent stress and coping.

Parent Signature: _____

APPENDIX B
ADOLESCENT ASSENT

Adolescent Stress and Coping Study
Adolescent Informed Assent Form

I, _____, agree to take part in a study about high school adolescent stressful life events and coping behavior. This study is expected to increase the understanding of the stressful events faced by high school adolescents. This knowledge could be helpful in the development of programs to help high school adolescents. As a participant, I understand that I will be asked to complete a survey questionnaire. The questionnaire will ask questions about major life events that happened to me during the past year, things I did to handle problems, how other people may have helped me deal with problems, and questions about my health. I understand that there is a small chance that I may feel sad when recalling some stressful events.

I understand that although my parent has agreed that I can take part in the study, I don't have to take part in the study if I don't want to. In addition, I know that I can quit at anytime without getting into trouble. I understand my answers to questions will remain confidential and all questionnaires will be completed anonymously. It will take about 50 minutes to complete all the questions.

I know that if I participate in the research study, I will have the chance of winning one of five \$20.00 gift certificates to Sound Warehouse. These gift certificates will be awarded to winners of a drawing consisting of all those returning questionnaires. Questionnaires will be separated from the names entered in the drawing to ensure confidentiality.

(Date)

(Signature of Student)

APPENDIX C
APPROVAL LETTER FROM UNT COMMITTEE
FOR THE PROTECTION OF HUMAN SUBJECTS



University of North Texas

Sponsored Projects Administration

April 1, 1994

Hazel Prelow
1730 Delaford Court
Carrollton, TX 75007

Dear Ms. Prelow:

Your proposal, "Stress, Coping, and Social Support in Adolescents: Cultural and Ethnic Differences", has undergone Full Board Review by the University of North Texas Institutional Review Board and has been approved.

Good luck on your project.

Sincerely,

A handwritten signature in cursive script that reads "Sandra Terrell".

Dr. Sandra Terrell, Chair
Institutional Review Board

ST/tl

APPENDIX D

APPROVAL LETTER FROM DALLAS INDEPENDENT SCHOOL DISTRICT



March 23, 1994

Ms. Hazel M. Prelow
1730 Delaford Court
Carrollton, Texas 75007

Dear Ms. Prelow:

This letter is to acknowledge the receipt of your request to conduct research within the Dallas Independent School District for your doctoral thesis entitled: "Stress, Coping and Social Support in Adolescence: An Exploration of Cultural and Ethnic Differences". The prospectus has been thoroughly reviewed by staff and recommended for approval primarily because this topic is of significance and importance to the District as well. The following provisions will be necessary to conduct this study:

- 1) To ensure that informed consent is given, prepare a brief explanation of the project instrumentation, time and effort required and anticipated benefits for parental review along with appropriate consent forms.
- 2) Meet and confer with Dr. Bert Rakowitz who shall serve as the liaison from the Psychology Department and shall assist in arranging the logistics of this effort within the District.

Upon successful completion of this study, please see that my office receives a copy for the District Archives. Best of luck on this investigation.

Sincerely,

William J. Webster
Division Executive
Program Evaluation and Accountability Services

eh

cc: Rosemarie Allen
Allen R. Sullivan
Wally Carter

Dallas Independent
School District

Chad Woolery
General Superintendent

3700 Ross Avenue
Dallas, Texas 75204-5491
(214) 824-1620

APPENDIX E
DEMOGRAPHIC QUESTIONNAIRE VERSION 1

Instructions: We would like to get some information about you. For each question, please answer in the space provided. There are no right or wrong answers. Please answer all questions even if they do not directly apply to you.

1. What is your age in years? _____
2. Are you male or female? (*please circle the correct response*) (1) Male (2) Female
3. Would you say you are: (*please circle the correct response*)

(1) White (Caucasian)	(4) Asian
(2) Black (African-American)	(5) Native American (American Indian)
(3) Hispanic (Latino/Latina)	(6) Other (<i>What would you say?</i>) _____
4. What is your mother's occupation? (*be as specific as you can*)

5. What is your mother's highest level of education? (*please circle the highest level completed*)

(1) 7th grade or less	(5) at least 1 year of college, specialized training, or trade school
(2) 8th-9th grade	(6) 4 year college degree
(3) 10-11th grade	(7) a master's degree or above
(4) high school diploma	
6. What is your father's occupation? (*be as specific as you can*) _____
7. What is your father's highest level of education? (*please circle the highest level completed*)

(1) 7th grade or less	(5) at least 1 year of college, specialized training, or trade school
(2) 8th-9th grade	(6) 4 year college degree
(3) 10-11th grade	(7) a master's degree or above
(4) high school diploma	
8. Who do you live with? (*please circle*)

(1) both mother & father	(5) father & step-mother
(2) mother only	(6) grandparent(s) only
(3) father only	(7) other (<i>please specify</i>) _____
(4) mother & step-father	
9. How many brothers and sisters live with you? (*include step- and half brothers & sisters*) _____
10. What is your grade level? (*please circle correct answer*)

(1) 9th grade	(2) 10th grade	(3) 11th grade	(4) 12th grade
---------------	----------------	----------------	----------------
11. What was your overall grade point average for the last six weeks? _____
12. Do you have a job? (*please circle correct answer*) (1) Yes (2) No
If yes, how many hours a week do you work? _____
13. If you have a job, please rate how stressful the job is for you.
(*please circle the answer that best describes how you feel*)

(1) Not at all	(2) Slightly	(3) Moderately	(4) Extremely
----------------	--------------	----------------	---------------
14. Are you involved in any extracurricular activities such as, sport activities, band, choir, school organizations, volunteer work, community service, or church activities? (1) Yes (2) No
If yes, what organizations or activities? _____

15. If you are involved in any extracurricular activities such as sports activities, school organizations, volunteer work, community service, or church activities, please rate how stressful these activities are for you. (*please circle the answer that best describes how you feel*)

(1) Not at all	(2) Slightly	(3) Moderately	(4) Extremely
----------------	--------------	----------------	---------------
16. How many school days have you missed this year due to illness? _____ How many school days have you missed this year for other reasons? _____

APPENDIX F
DEMOGRAPHIC QUESTIONNAIRE VERSION 2

Instructions: For each question, answer in the space provided.

1. What is your age? ____ 2. What grade are you in? ____th 3. Are you? (please circle) (1) male (2) female

4. Would you say you are: (please circle)

- | | |
|------------------------------|---------------------------------------|
| (1) White (Caucasian) | (4) Asian |
| (2) Black (African-American) | (5) Native American (American Indian) |
| (3) Hispanic (Latino/Latina) | (6) Other (What would you say?) _____ |

5. Please circle the person who lives with you and who is your **female parent/parental figure**.

- | | |
|--|----------------------------------|
| (1) I don't live with a female parent/parental figure (if you circle (1) go on to question #6) | |
| (2) mother | (5) aunt |
| (3) step-mother | (6) adult sister |
| (4) grandmother | (7) other (please specify) _____ |

What kind of job does the person you circled in question #5 usually do? (be as specific as you can)

Please circle this person's highest level of education completed.

- | | |
|-------------------------|---|
| (1) 7th grade or less | (5) at least 1 year of college, specialized training, or trade school |
| (2) 8th-9th grade | (6) 4 year college degree |
| (3) 10-11th grade | (7) a master's degree or above |
| (4) high school diploma | |

6. Please circle the person who lives with you and who is your **male parent/parental figure**.

- | | |
|--|----------------------------------|
| (1) I don't live with a male parent/parental figure (if you circle (1) go on to question #7) | |
| (2) father | (5) uncle |
| (3) step-father | (6) adult brother |
| (4) grandfather | (7) other (please specify) _____ |

What kind of job does the person you circled in question #6 usually do? (be as specific as you can)

Please circle this person's highest level of education completed.

- | | |
|-------------------------|---|
| (1) 7th grade or less | (5) at least 1 year of college, specialized training, or trade school |
| (2) 8th-9th grade | (6) 4 year college degree |
| (3) 10-11th grade | (7) a master's degree or above |
| (4) high school diploma | |

7. What was your overall grade point average for the last six weeks? _____ (out of 100)

8. Do you have a paid job? (1) Yes (2) No. If yes, how many hours a week do you usually work? _____
If you have a job, please rate how stressful the job is for you. (circle the answer that best describes how you feel)

- | | | | |
|--------------------------|------------------------|--------------------------|-------------------------|
| (1) Not at all stressful | (2) Slightly stressful | (3) Moderately stressful | (4) Extremely stressful |
|--------------------------|------------------------|--------------------------|-------------------------|

9. Are you involved in any after school activities such as: sports, band, choir, school organizations, volunteer work, community service, or church activities? (1) Yes (2) No

If yes, which activities or organizations? _____

If you are involved in any after school activities such as: sports, school organizations, volunteer work, community service, or church activities, please rate how stressful these activities are for you. (circle the answer)

- | | | | |
|--------------------------|------------------------|--------------------------|-------------------------|
| (1) Not at all stressful | (2) Slightly stressful | (3) Moderately stressful | (4) Extremely stressful |
|--------------------------|------------------------|--------------------------|-------------------------|

10. How many school days did you miss during all of last school year (Aug.-May) due to illness? _____

How many school days did you miss during all of last school year (Aug.-May) for other reasons? _____

APPENDIX G
DEMOGRAPHIC QUESTIONNAIRE VERSION 3

Instructions: We would like to get some information about you. For each question, answer in the space provided. There are no right or wrong answers. Please answer all questions even if they do not directly apply to you.

1. How old are you? _____
2. Are you male or female? *(please circle)* (1) Male (2) Female
3. Would you say you are: *(please circle)*

(1) White (Caucasian)	(4) Asian
(2) Black (African-American)	(5) Native American (American Indian)
(3) Hispanic (Latino/Latina)	(6) Other <i>(What would you say?)</i> _____
4. Please circle the person who lives with you and who is your **female parent/parental figure**.

(1) I don't live with a female parent/parental figure <i>(if you circle (1) go on to question #5)</i>	
(2) mother	(5) aunt
(3) step-mother	(6) adult sister
(4) grandmother	(7) other <i>(please specify)</i> _____

What kind of job does the person you circled in question #4 usually do? *(be as specific as you can)*

Please circle this person's highest level of education completed.

- | | |
|-------------------------|---|
| (1) 7th grade or less | (5) at least 1 year of college, specialized training, or trade school |
| (2) 8th-9th grade | (6) 4 year college degree |
| (3) 10-11th grade | (7) a master's degree or above |
| (4) high school diploma | |

5. Please circle the person who lives with you and who is your **male parent/parental figure**.

(1) I don't live with a male parent/parental figure <i>(if you circle (1) go on to question #6)</i>	
(2) father	(5) uncle
(3) step-father	(6) adult brother
(4) grandfather	(7) other <i>(please specify)</i> _____

What kind of job does the person you circled in question #5 usually do? *(be as specific as you can)*

Please circle this person's highest level of education completed.

- | | |
|-------------------------|---|
| (1) 7th grade or less | (5) at least 1 year of college, specialized training, or trade school |
| (2) 8th-9th grade | (6) 4 year college degree |
| (3) 10-11th grade | (7) a master's degree or above |
| (4) high school diploma | |

6. How many brothers, sisters, or cousins live with you? *(include step- and half brothers, sisters, & cousins)* _____
7. What grade are you in? *(please circle correct answer)*

(1) 9th grade	(2) 10th grade	(3) 11th grade	(4) 12th grade
---------------	----------------	----------------	----------------
8. What was your overall grade point average for the last six weeks? _____
9. Do you have a paid job? (1) Yes (2) No. If yes, how many hours a week do you usually work? _____
If you have a job, please rate how stressful the job is for you. *(circle the answer that best describes how you feel)*
(1) Not at all stressful (2) Slightly stressful (3) Moderately stressful (4) Extremely stressful
10. Are you involved in any after school activities such as: sports, band, choir, school organizations, volunteer work, community service, or church activities? (1) Yes (2) No
If yes, which activities or organizations? _____

If you are involved in any after school activities such as: sports, school organizations, volunteer work, community service, or church activities, please rate how stressful these activities are for you. *(circle the answer)*

- | | | | |
|--------------------------|------------------------|--------------------------|-------------------------|
| (1) Not at all stressful | (2) Slightly stressful | (3) Moderately stressful | (4) Extremely stressful |
|--------------------------|------------------------|--------------------------|-------------------------|

11. How many school days have you missed during all of last school year due to illness? _____
How many school days have you missed during all of last school year for other reasons? _____

APPENDIX H
INVENTORY OF SOCIALLY SUPPORTIVE BEHAVIORS
40-ITEM VERSION

We are interested in learning about some of the ways that people have helped you or tried to make life more pleasant for you over the past 4 weeks. Below you will find a list of activities that other people might have done for you, to you, or with you in recent weeks. Please read each item carefully and circle a number from 0 to 4 to show how often these activities happened to you during the past 4 weeks. Use the following scale to make your rating:
 (0) Not at all (1) Once or twice (2) About once a week (3) Several times a week (4) About every day

During the past 4 weeks, how often did other people do these activities for you, to you or with you:					
	Not at all	Once or twice	About once a week	Several times a week	About every day
1. Looked after a family member when you were away.	0	1	2	3	4
2. Was right there with you (physically) in a stressful situation.	0	1	2	3	4
3. Provided you with a place where you could get away for a while.	0	1	2	3	4
4. Watched after your possessions when you were away (pets, plants, home, etc.).	0	1	2	3	4
5. Told you what she/he did in a situation that was similar to yours.	0	1	2	3	4
6. Did some activity with you to help get your mind off of things.	0	1	2	3	4
7. Talked with you about some interests of yours.	0	1	2	3	4
8. Let you know that you did something well.	0	1	2	3	4
9. Went with you to someone who could take action.	0	1	2	3	4
10. Told you that you are OK just the way you are.	0	1	2	3	4
11. Told you that he/she would keep the things that you talk about private (just between the two of you).	0	1	2	3	4
12. Assisted you in setting a goal for yourself.	0	1	2	3	4
13. Made it clear what was expected of you.	0	1	2	3	4
14. Expressed esteem or respect for a competency or personal quality of yours.	0	1	2	3	4
15. Gave you some information on how to do something.	0	1	2	3	4
16. Suggested some action that you might take.	0	1	2	3	4
17. Gave you over \$25.	0	1	2	3	4
18. Comforted you by showing you some physical affection.	0	1	2	3	4
19. Gave you some information to help you understand a situation you were in.	0	1	2	3	4
20. Provided you with transportation.	0	1	2	3	4
21. Checked back with you to see if you followed the advice you were given.	0	1	2	3	4
22. Gave you under \$25.	0	1	2	3	4
23. Helped you understand why you didn't do something well.	0	1	2	3	4
24. Listened to you talk about your private feelings.	0	1	2	3	4
25. Loaned or gave you something (a physical object other than money) that you needed.	0	1	2	3	4
26. Agreed that what you wanted to do was right.	0	1	2	3	4
27. Said things that made your situation clearer and easier to understand.	0	1	2	3	4

During the past 4 weeks, how often did other people do these activities for you, to you, or with you:	Not at all	Once or twice	About once a week	Several times a week	About every day	
28. Told you how he/she felt in a situation that was similar to yours.	0	1	2	3	4	
29. Let you know that he/she will always be around if you need assistance.	0	1	2	3	4	
30. Expressed interest and concern in your well-being.	0	1	2	3	4	
31. Told you that she/he feels very close to you.	0	1	2	3	4	
32. Told you who should see for assistance.	0	1	2	3	4	
33. Told you what to expect in a situation that was about to happen.	0	1	2	3	4	
34. Loaned you over \$25.	0	1	2	3	4	
35. Taught you how do something.	0	1	2	3	4	
36. Gave you feedback on how you were doing without saying it was good or bad.	0	1	2	3	4	
37. Joked and kidded to try to cheer you up.	0	1	2	3	4	
38. Provided you with a place to stay.	0	1	2	3	4	
39. Pitched in to help you do something that needed to get done.	0	1	2	3	4	
40. Loaned you under \$25.	0	1	2	3	4	

APPENDIX I
INVENTORY OF SOCIALLY SUPPORTIVE BEHAVIORS
19-ITEM VERSION

During the <u>past 4 weeks</u> , how often did other people do activities for you, to you or with you:	Never	A Little	Sometimes	Often	Always
1. Gave you some information on how to do something.	2	3	4	5	
2. Helped you understand why you didn't do something well.	1	2	3	4	5
3. Suggested some action you should take.	1	2	3	4	5
4. Gave you some feedback on how you were doing something without saying it was good or bad.	1	2	3	4	5
5. Made it clear what was expected of you.	1	2	3	4	5
6. Told you what he/she did in a situation that was similar to yours.	1	2	3	4	5
7. Told you that he/she feels close to you.	1	2	3	4	5
8. Let you know that he/she will always be around if you need help.	1	2	3	4	5
9. Told you that you are OK just the way you are.	1	2	3	4	5
10. Expressed interest and concern in your well-being	1	2	3	4	5
11. Comforted you by showing you some physical affection.	1	2	3	4	5
12. Told you that he/she would keep the things you talk about private.	1	2	3	4	5
13. Agreed that what you wanted to do was the right thing.	1	2	3	4	5
14. Did some activity together to help you get your mind off things.	1	2	3	4	5
15. Gave or loaned you over \$25.	1	2	3	4	5
16. Provided you with a place to stay.	1	2	3	4	5
17. Loaned or gave you something (a physical object) that you needed.	1	2	3	4	5
18. Pitched in to help you do something that needed to get done.	1	2	3	4	5
19. Went with you to someone who could take action.	1	2	3	4	5

APPENDIX J
LIFE EVENTS INVENTORY VERSION 1

The events below sometimes happen to high school students. Please read each item carefully and show the frequency and the negative impact of the event. Frequency is how often the event happened to you *during the last year*. Circle a number from 1 to 5 to show how frequently each event happened to you *during the last year*. Negative Impact is how much the event negatively affected your life or how much it led to changes in your health, your relationships with other people, or how you felt about yourself *at the time the event happened to you*. Circle a number from 1 to 5 to show how much negative impact the event had on you.

	Frequency in past 1 year					Negative Impact				
	1	2	3	4	5	1	2	3	4	5
1. Failed one or more school subjects	1	2	3	4	5	1	2	3	4	5
2. Death of a close friend	1	2	3	4	5	1	2	3	4	5
3. Death of a family member (please circle all that apply to you—parent, grandparent, brother, or sister)	1	2	3	4	5	1	2	3	4	5
4. Arrest of a family member	1	2	3	4	5	1	2	3	4	5
5. Hospitalization of yourself	1	2	3	4	5	1	2	3	4	5
6. Hospitalization of a family member (please circle all that apply to you—parent, grandparent, brother, or sister)	1	2	3	4	5	1	2	3	4	5
7. Trouble with the law	1	2	3	4	5	1	2	3	4	5
8. Committed a crime	1	2	3	4	5	1	2	3	4	5
9. Friend(s) got in trouble with the law	1	2	3	4	5	1	2	3	4	5
10. Fight with a parent	1	2	3	4	5	1	2	3	4	5
11. Fight, conflict, or argument with a friend	1	2	3	4	5	1	2	3	4	5
12. Parents had a fight or argued	1	2	3	4	5	1	2	3	4	5
13. Parents separated	1	2	3	4	5	1	2	3	4	5
14. Harassed because of your race	1	2	3	4	5	1	2	3	4	5
15. Parents divorced	1	2	3	4	5	1	2	3	4	5
16. Major decrease in family income	1	2	3	4	5	1	2	3	4	5
17. A close relative got in trouble because of drug or alcohol use (please circle which—parent, brother, or sister)	1	2	3	4	5	1	2	3	4	5
18. Moved away from one parent to live with other parent	1	2	3	4	5	1	2	3	4	5
19. Moved to a new school district	1	2	3	4	5	1	2	3	4	5
20. Parent lost his/her job	1	2	3	4	5	1	2	3	4	5
21. Tried out for a team activity and didn't make it	1	2	3	4	5	1	2	3	4	5
22. Violent crime at your school or in your neighborhood	1	2	3	4	5	1	2	3	4	5
23. Gang activity in your school or neighborhood	1	2	3	4	5	1	2	3	4	5

Frequency in past 1 year

1: Never happened
 2: Once or twice
 3: Several times a month
 4: Several times a week
 5: No impact

Negative Impact

1: Slightly negative
 2: Moderately negative
 3: Severely negative
 4: Extremely negative
 5: Severely negative

	Frequency in past 1 year					Negative Impact				
	Never happened	Once or twice	Once a month	Several times a month	Several times a week	No impact	Slightly negative	Moderately negative	Severely negative	Extremely negative
24. Had a sexual experience	1	2	3	4	5	1	2	3	4	5
25. Became engaged or married	1	2	3	4	5	1	2	3	4	5
26. Had to care for younger brothers and/or sisters	1	2	3	4	5	1	2	3	4	5
27. Used alcohol and/or drugs	1	2	3	4	5	1	2	3	4	5
28. Teacher favored other students	1	2	3	4	5	1	2	3	4	5
29. Weight change	1	2	3	4	5	1	2	3	4	5
30. Other activities interfered with school	1	2	3	4	5	1	2	3	4	5
31. Change in personal appearance	1	2	3	4	5	1	2	3	4	5
32. Liked someone who did not like you	1	2	3	4	5	1	2	3	4	5
33. Suspended from school	1	2	3	4	5	1	2	3	4	5
34. Broke up with boyfriend/girlfriend	1	2	3	4	5	1	2	3	4	5
35. Brother or sister left home	1	2	3	4	5	1	2	3	4	5
36. Marriage of parent to step-parent	1	2	3	4	5	1	2	3	4	5
37. Began senior year of high school	1	2	3	4	5	1	2	3	4	5
38. Had a visible handicap	1	2	3	4	5	1	2	3	4	5
39. Became pregnant or fathered a pregnancy	1	2	3	4	5	1	2	3	4	5
40. Started to carry a weapon to protect self	1	2	3	4	5	1	2	3	4	5
41. Learned that some kids carried weapons in school or neighborhood	1	2	3	4	5	1	2	3	4	5
42. Had problems with teachers and/or school administrators	1	2	3	4	5	1	2	3	4	5
43. Involved in a fight	1	2	3	4	5	1	2	3	4	5
44. Required special education classes	1	2	3	4	5	1	2	3	4	5
45. Unable to participate in sport or other extracurricular activity because of "no pass, no play" rule	1	2	3	4	5	1	2	3	4	5
46. Another adult moved in with your family	1	2	3	4	5	1	2	3	4	5
47. Birth of a brother or sister	1	2	3	4	5	1	2	3	4	5

APPENDIX K
LIFE EVENTS INVENTORY VERSION 2

Carefully read this list of events. For events that did not happen to you in the past year, circle 1 (Never happened) under Frequency in past 1 year. If the event did not happen to you, do not make an entry under Negative Impact.

For events that happened directly to you in the past year, circle a number from 2 (Once or twice) to 5 (Several times a week) under Frequency in past 1 year to show how often the event happened to you. For each of these events that happened to you in the past year, also circle a number from 1 (No impact) to 5 (Extremely Negative) under Negative Impact to show how much the event negatively affected your life.

	Frequency in past 1 year					Negative Impact				
	1	2	3	4	5	1	2	3	4	5
1. Failed one or more school subjects	1	2	3	4	5	1	2	3	4	5
2. Death of a close friend	1	2	3	4	5	1	2	3	4	5
3. Death of a family member (Circle who: parent/parental figure, grandparent, brother, sister, or other family member)	1	2	3	4	5	1	2	3	4	5
4. Arrest of a family member	1	2	3	4	5	1	2	3	4	5
5. Serious illness or hospitalization of yourself	1	2	3	4	5	1	2	3	4	5
6. Serious illness or hospitalization of a family member (Circle who: parent/parental figure, grandparent, brother, sister, or other family member)	1	2	3	4	5	1	2	3	4	5
7. Trouble with the law	1	2	3	4	5	1	2	3	4	5
8. Committed a crime	1	2	3	4	5	1	2	3	4	5
9. Friend(s) got in trouble with the law	1	2	3	4	5	1	2	3	4	5
10. Fight with a parent/parental figure	1	2	3	4	5	1	2	3	4	5
11. Fight, conflict, or argument with a friend	1	2	3	4	5	1	2	3	4	5
12. Parents/Parental figures had a fight or argued	1	2	3	4	5	1	2	3	4	5
13. Parents/Parental figures separated	1	2	3	4	5	1	2	3	4	5
14. Harassed because of your race	1	2	3	4	5	1	2	3	4	5
15. Parents/Parental figures divorced	1	2	3	4	5	1	2	3	4	5
16. Major decrease in family income	1	2	3	4	5	1	2	3	4	5
17. A close relative got in trouble because of drugs or alcohol use (Circle who: parent/parental figure, grandparent, brother, sister, or other family member)	1	2	3	4	5	1	2	3	4	5
18. Moved away from one parent/parental figure to live with other parent/parental figure	1	2	3	4	5	1	2	3	4	5
19. Moved to a new school or school district	1	2	3	4	5	1	2	3	4	5
20. Parent/Parental figure lost his/her job	1	2	3	4	5	1	2	3	4	5
21. Tried out for a team activity and didn't make it	1	2	3	4	5	1	2	3	4	5
22. Violent crime at your school or in your neighborhood	1	2	3	4	5	1	2	3	4	5
23. Gang activity in your school or neighborhood	1	2	3	4	5	1	2	3	4	5

24. Had a sexual experience	1	2	3	4	5	1	2	3	4	5
25. Became engaged or married	1	2	3	4	5	1	2	3	4	5
26. Had to care for younger brothers and/or sisters	1	2	3	4	5	1	2	3	4	5
27. Used alcohol and/or drugs	1	2	3	4	5	1	2	3	4	5
28. Teacher favored other students	1	2	3	4	5	1	2	3	4	5
29. Weight change	1	2	3	4	5	1	2	3	4	5
30. Other activities interfered with school	1	2	3	4	5	1	2	3	4	5
31. Change in personal appearance	1	2	3	4	5	1	2	3	4	5
32. Liked someone who did not like you	1	2	3	4	5	1	2	3	4	5
33. Suspended from school	1	2	3	4	5	1	2	3	4	5
34. Broke up with boyfriend/girlfriend	1	2	3	4	5	1	2	3	4	5
35. Brother or sister left home	1	2	3	4	5	1	2	3	4	5
36. Marriage of parent to step-parent	1	2	3	4	5	1	2	3	4	5
37. Began senior year of high school	1	2	3	4	5	1	2	3	4	5
38. Had a visible handicap	1	2	3	4	5	1	2	3	4	5
39. Became pregnant or fathered a pregnancy	1	2	3	4	5	1	2	3	4	5
40. Started to carry a weapon to protect self	1	2	3	4	5	1	2	3	4	5
41. Learned that some kids carried weapons in school or neighborhood	1	2	3	4	5	1	2	3	4	5
42. Had problems with teachers and/or school administrators	1	2	3	4	5	1	2	3	4	5
43. Involved in a fight	1	2	3	4	5	1	2	3	4	5
44. Required special education classes	1	2	3	4	5	1	2	3	4	5
45. Unable to participate in sport or other extracurricular activity because of "no pass, no play" rule	1	2	3	4	5	1	2	3	4	5
46. Another adult moved in with your family	1	2	3	4	5	1	2	3	4	5
47. Birth of a brother or sister	1	2	3	4	5	1	2	3	4	5
Please use the spaces below to list any events that happened to you during the last 1 year which you found stressful or which negatively affected your life that were not listed and rate their frequency and negative impact.										
48.	1	2	3	4	5	1	2	3	4	5
49.	1	2	3	4	5	1	2	3	4	5
Of the events numbered 1-49 listed above, write the number of the event which was the most stressful or most upsetting for you: _____										

APPENDIX L
LIFE EVENTS INVENTORY VERSION 3

Events	Negative Impact				
	Didn't Happen	No Impact	Slightly negative	Moderately negative	Severely negative Extremely negative
Under Events, circle 1 for events that (Didn't Happen) to you in the past 1 year . If the event did not happen to you, do not make an entry under Negative Impact.	1	2	3	4	5
For events that did happen directly to you in the past 1 year : circle 2 (Happened) under Events and also circle a number from 1 (No Impact) to 5 (Extremely Negative) under Negative Impact to show how much the event affected your life.	1	2	3	4	5
1. Death of a close friend	1	2	3	4	5
2. Death of a family member (Circle who: parent/parental figure, grandparent, brother, sister, or other family member)	1	2	3	4	5
3. Serious illness or hospitalization of yourself	1	2	3	4	5
4. Serious illness or hospitalization of a family member (Circle who: parent/parental figure, grandparent, brother, sister, or other family member)	1	2	3	4	5
5. Trouble with the law	1	2	3	4	5
6. Friend(s) got in trouble with the law	1	2	3	4	5
7. Parents/Parental figures separated	1	2	3	4	5
8. Parents/Parental figures divorced	1	2	3	4	5
9. Major decrease in family income	1	2	3	4	5
10. Arrest of a family member	1	2	3	4	5
11. Moved away from one parent/parental figure to live with other parent/parental figure	1	2	3	4	5
12. Moved to a new school or school district	1	2	3	4	5
13. Parent/Parental figure lost his/her job	1	2	3	4	5
14. Tried out for a team activity and didn't make it	1	2	3	4	5
15. Became engaged or married	1	2	3	4	5
16. Weight change	1	2	3	4	5
17. Change in personal appearance	1	2	3	4	5
18. Liked someone who did not like you	1	2	3	4	5
19. Suspended from school	1	2	3	4	5
20. Broke up with boyfriend/girlfriend	1	2	3	4	5
21. Brother or sister left home	1	2	3	4	5
22. Marriage of parent to step-parent	1	2	3	4	5
23. Began senior year of high school	1	2	3	4	5
24. Had a visible handicap	1	2	3	4	5
25. Became pregnant or fathered a pregnancy	1	2	3	4	5
26. Had problems with teachers and/or school administrators	1	2	3	4	5
27. Required special education/content mastery classes	1	2	3	4	5
28. Unable to participate in sport or other extracurricular activity because of "no pass, no play" rule	1	2	3	4	5
29. Another adult moved in with your family	1	2	3	4	5
30. Birth of a brother or sister	1	2	3	4	5
31. Had a sexual experience or sexual contact that you did not agree to	1	2	3	4	5

Under **Frequency in past 1 year**, circle 1 (Didn't happen) to 5 (Several times a week) to show how often each event happened directly to you in the past 1 year. If the event didn't happen, stop and go on to the next event.

For events that happen directly to you in the **past 1 year**, also, circle a number from 1 (No Impact) to 5 (Extremely Negative) under **Negative Impact** to show how much the event affected your life.

	Frequency in past 1 year					Negative Impact				
	1	2	3	4	5	1	2	3	4	5
32. Had a sexual experience (if not you agreed to)										
33. Committed a crime										
34. Fight with a parent/parental figure										
35. Fight, conflict, or argument with a friend										
36. Harassed because of your race										
37. Violent crime at school or in your neighborhood										
38. Gang activity in your school or neighborhood										
39. Failed one or more school subjects										
40. Had to care for younger brothers and/or sisters										
41. Used alcohol and/or drugs										
42. Teacher favored other students										
43. Other activities interfered with school										
44. Started to carry weapon to protect self										
45. Learned that some kids carried weapons in school or neighborhood										
46. Involved in a fight										
47. Parents/parental figures had a fight or argued										
48. A close relative got in trouble because of drug or alcohol use										
49. Tests, grades, and/or schoolwork										
Please use the spaces below to list any events that happened to you during the last 1 year which you found stressful or which negatively affected your life that were not listed and rate their frequency and negative impact.										
50.	1	2	3	4	5	1	2	3	4	5
51.	1	2	3	4	5	1	2	3	4	5
52.	1	2	3	4	5	1	2	3	4	5
Of the events 1-52 above, write the number of the event which happened and was the most stressful or most upsetting for you: <input type="text"/>										

Circle who: Parent/parental figure, acquaintance, brother, sister, or other family member

APPENDIX M
HOPKINS SYMPTOM CHECKLIST

INSTRUCTIONS:

Below is a list of problems and complaints that people sometimes have. Please read each one carefully. After you have done so, please rate how much that problem has bothered or distressed you DURING THE LAST WEEK INCLUDING TODAY. To make your ratings, use the scale below:

(1) Not At All (2) A Little Bit (3) Quite A Bit (4) Extremely

During the past week, how much were you bothered by:	Not At All	A Little Bit	Quite A Bit	Extremely
1. Headaches	1	2	3	4
2. Nervousness or shakiness inside	1	2	3	4
3. Being unable to get rid of bad thoughts or ideas	1	2	3	4
4. Faintness or dizziness	1	2	3	4
5. Loss of sexual interest or pleasure	1	2	3	4
6. Feeling critical of others	1	2	3	4
7. Bad dreams	1	2	3	4
8. Difficulty in speaking when you are excited	1	2	3	4
9. Trouble remembering things	1	2	3	4
10. Worried about sloppiness or carelessness	1	2	3	4
11. Feeling easily annoyed or irritated	1	2	3	4
12. Pains in the heart or chest	1	2	3	4
13. Itching	1	2	3	4
14. Feeling low in energy or slowed down	1	2	3	4
15. Thoughts of ending your life	1	2	3	4
16. Sweating	1	2	3	4
17. Trembling	1	2	3	4
18. Feeling confused	1	2	3	4
19. Poor appetite	1	2	3	4
20. Crying easily	1	2	3	4
21. Feeling shy or uneasy with the opposite sex	1	2	3	4
22. A feeling of being trapped or caught	1	2	3	4
23. Suddenly scared for no reason	1	2	3	4
24. Temper outbursts you could not control	1	2	3	4
25. Constipation	1	2	3	4
26. Blaming yourself for things.	1	2	3	4
27. Pains in the lower part of your back	1	2	3	4
28. Feeling blocked in getting things done	1	2	3	4

During the past week, how much were you bothered by:		Not At All	A Little Bit	Quite A Bit	Extremely
29.	Feeling lonely	1	2	3	4
30.	Feeling blue	1	2	3	4
31.	Worrying too much about things	1	2	3	4
32.	Feeling no interest in things	1	2	3	4
33.	Feeling fearful	1	2	3	4
34.	Your feelings being easily hurt	1	2	3	4
35.	Having to ask others what you should do	1	2	3	4
36.	Feeling others do not understand you or are unsympathetic	1	2	3	4
37.	Feeling that people are unfriendly or dislike you	1	2	3	4
38.	Having to do things very slowly to insure correctness	1	2	3	4
39.	Heart pounding or racing	1	2	3	4
40.	Nausea or upset stomach	1	2	3	4
41.	Feeling inferior to others	1	2	3	4
42.	Soreness of your muscles	1	2	3	4
43.	Loose bowel movements	1	2	3	4
44.	Trouble falling asleep	1	2	3	4
45.	Having to check and double-check what you do	1	2	3	4
46.	Difficulty making decisions	1	2	3	4
47.	Wanting to be alone	1	2	3	4
48.	Trouble getting your breath	1	2	3	4
49.	Hot or cold spells	1	2	3	4
50.	Having to avoid certain things, places, or activities because they frighten you	1	2	3	4
51.	Your mind going blank	1	2	3	4
52.	Numbness or tingling in parts of your body	1	2	3	4
53.	A lump in your throat	1	2	3	4
54.	Feeling hopeless about the future	1	2	3	4
55.	Trouble concentrating	1	2	3	4
56.	Feeling weak in parts of your body	1	2	3	4
57.	Feeling tense or keyed up	1	2	3	4
58.	Heavy feelings in your arms or legs	1	2	3	4

APPENDIX N
COPING INVENTORY

Think about the event you listed on the previous page as the most stressful or most upsetting event that happened. Below are some things that people do when a stressful event or something upsetting happens. Read each item and circle a number from 1 to 5 to show how much you did this when the event you listed happened to you.

When this event happened to me:					
	Never	A Little	Sometimes	Often	Always
1. I thought hard about what steps to take.	1	2	3	4	5
2. I thought about the choices before I did anything.	1	2	3	4	5
3. I thought of different ways to take care of it	1	2	3	4	5
4. I tried different ways to solve the problem.	1	2	3	4	5
5. I did something to try to solve the problem.	1	2	3	4	5
6. I considered my actions very carefully.	1	2	3	4	5
7. I just kept away from people.	1	2	3	4	5
8. I daydreamed about better times.	1	2	3	4	5
9. I told people, "Just leave me alone."	1	2	3	4	5
10. I tried to put the problem out of my mind.	1	2	3	4	5
11. I just held my feelings in.	1	2	3	4	5
12. I daydreamed about other things.	1	2	3	4	5
13. I just wanted things to be different.	1	2	3	4	5
14. I tried not to think about the problem.	1	2	3	4	5
15. I worried a lot about the problem.	1	2	3	4	5
16. I tried to distract myself from the problem.	1	2	3	4	5
17. I didn't let others see how bad things were.	1	2	3	4	5
18. I just wished the problems would go away.	1	2	3	4	5
19. I discussed my feelings with a friend I felt close to.	1	2	3	4	5
20. I tried to get support from one of my friends.	1	2	3	4	5
21. I got sympathy and understanding from from a friend.	1	2	3	4	5
22. I talked to a friend about how I felt.	1	2	3	4	5
23. I thought, "It will be over in a short time."	1	2	3	4	5
24. I thought, "It's not worth getting upset about."	1	2	3	4	5
25. I tried to see the problem in a different way.	1	2	3	4	5
26. I looked for something good in what was happening.	1	2	3	4	5
27. I said, "Things will turn out all right."	1	2	3	4	5
28. I tried to notice the good things in life.	1	2	3	4	5
29. I smoked cigarettes a lot.	1	2	3	4	5
30. I drank alcohol to feel better.	1	2	3	4	5
31. I smoked marijuana.	1	2	3	4	5
32. I took pills to feel better.	1	2	3	4	5
33. I got mad at people.	1	2	3	4	5
34. I took it out on someone else.	1	2	3	4	5
35. I blamed and criticized other people.	1	2	3	4	5
36. I threw things, broke someone's things.	1	2	3	4	5
37. I did something bad, caused trouble.	1	2	3	4	5

When this event happened to me:					
	Never	A Little	Sometimes	Pretty Much	Always
28. I tried to notice the good things in life.	1	2	3	4	5
29. I smoked cigarettes a lot.	1	2	3	4	5
30. I drank alcohol to feel better.	1	2	3	4	5
31. I smoked marijuana.	1	2	3	4	5
32. I took pills to feel better.	1	2	3	4	5
33. I got mad at people.	1	2	3	4	5
34. I took it out on someone else.	1	2	3	4	5
35. I blamed and criticized other people.	1	2	3	4	5
36. I threw things, broke someone's things.	1	2	3	4	5
37. I did something bad, caused trouble.	1	2	3	4	5
38. I hit someone.	1	2	3	4	5
39. I yelled and screamed at someone.	1	2	3	4	5
40. I said, "I can't deal with it," and quit trying.	1	2	3	4	5
41. I gave up trying to reach the goal.	1	2	3	4	5
42. I gave up trying to get what I wanted.	1	2	3	4	5
43. I stopped trying to solve the problem.	1	2	3	4	5
44. I discussed my feelings with my mother, father, or parental figure.	1	2	3	4	5
45. I got emotional support from my mother, father, or parental figure.	1	2	3	4	5
46. I got sympathy and understanding from my parents/parental figures.	1	2	3	4	5
47. I talked to my mother, father, or parental figure about how I felt.	1	2	3	4	5
48. I prayed.	1	2	3	4	5
49. I talked to a teacher or school counselor about my problem.	1	2	3	4	5
50. I got professional counseling (not from a teacher or school counselor).	1	2	3	4	5
51. I got sympathy and understanding from an adult family friend.	1	2	3	4	5
52. I talked to my brother(s) and/or sister(s) about my problem.	1	2	3	4	5
53. I got support from relatives (not parents, brothers, or sisters).	1	2	3	4	5
54. I attended a religious service.	1	2	3	4	5
55. I talked to an adult family friend about my feelings.	1	2	3	4	5

APPENDIX O
CATEGORIES OF MOST STRESSFUL EVENTS

Analyzed Categories of Most-Negative Events

1. Network loss events

Death of close friend

Death of a family member

Parental figures separated

Parental figures divorced

Moved to a new school

Broke up with boyfriend/Girlfriend

Brother or sister left home

Fight, conflict, or argument with a friend

Lack of intimacy with boyfriend/Girlfriend

Fight, conflict, or argument with boyfriend/Girlfriend

Pet died

Liked someone who did not like you

2. Family events

Major decrease in family income

Parental figure lost job

Unable to get job

Had no place to move to

Moved or unable to move to safer/Better housing

Unable to get tombstone for uncles grave

Analyzed Categories of Most-Negative Events (Continued)

3. School events

Tried out for team activity and did not make it

Began senior year of high school

Unable to play because of no pass no play rule

Failed one or more school subjects

Teacher favored other students

Tests, grades, and or schoolwork

Ran for school office

Involved in extracurricular activities

Found ineligible to play sport (not because of no pass no play rule)

APPENDIX P

MARLOWE-CROWNE SOCIAL DESIRABILITY SCALE SHORT-FORM

Below are a list of statements which might or might not describe you. Circle the number (1) for true if you feel the statement does describe you; circle the number (2) for false if you feel the statement does not describe you. Answer every question even if it doesn't directly apply to you.

For me this statement is: (1) True (2) False		True	False
1. I'm always willing to admit it when I make a mistake.		1	2
2. I always try to practice what I preach.		1	2
3. I never resent being asked to return a favor.		1	2
4. I have never been annoyed when people expressed ideas very different from my own.		1	2
5. I have never deliberately said something that hurt someone's feelings		1	2
6. I like to gossip at times.		1	2
7. There have been occasions when I look advantage of someone.		1	2
8. I sometimes try to get even rather than forgive and forget.		1	2
9. At times I have really insisted on having things my own way.		1	2
10. There have been occasions when I felt like smashing things.		1	2

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APPENDIX Q
COPING INVENTORY FACTORS

Coping Inventory FactorsFactor 1: Problem Solving/Cognitive Coping

1. Thought hard about what steps to take.
2. Thought about the choices before I did anything.
3. Thought of different ways to take care of it.
4. Tried different ways to solve the problem.
5. Did something to try to solve the problem.
6. Considered my actions carefully.
7. Just kept away from people.
8. Daydreamed about better times.
10. Tried to put it out of my mind.
11. Just held my feelings in.
12. Daydreamed about other things.
13. Just wanted things to be different.
14. Tried not to think about the problem.
15. Worried a lot about the problem.
16. Tried to distract myself from the problem.
17. Didn't let others know how bad things were.
18. Just wished the problems would go away.
23. Thought, it will be over in a short time.
24. Thought, it's not worth getting upset about.
25. Tried to see the problem in a different way.
26. Looked for something good in what was happening.

Coping Inventory Factors (Continued)

27. Said, things will turn out all right.

28. Tried to notice the good things in life.

Factor 2: Resigning/Externalizing

29. Smoked cigarettes a lot.

30. Drank alcohol to feel better.

31. Smoked marijuana.

32. Took pills to feel better.

33. Got mad at people.

34. Took it out on someone else.

35. Blamed and criticized other people.

36. Threw things, broke someone's things.

37. Did something bad, caused trouble.

38. Hit someone.

39. Yelled and screamed at someone.

40. Said, I cannot deal with it and quit trying.

41. Gave up trying to reach the goal.

42. Gave up trying to get what I wanted.

43. Stopped trying to solve the problem.

Factor 3: Seeking Support from Family and Adults

44. Discussed my feelings with my mother, father, or parental figure.

45. Got emotional support from my mother, father, or parental figure.

Coping Inventory Factors (Continued)Factor 3: Seeking Support from Family and Adults (Continued)

- 46. Got sympathy and understanding from my mother, father, or parental figure.
- 47. Talked to my mother, father, or parent.
- 49. Talked to a teacher or school counselor about my problem.
- 51. Got sympathy and understanding from an adult family friend.
- 52. Talked to my siblings about my problem.
- 53. Got support from relatives not parents.
- 55. Talked to an adult family friend about my problem.

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