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LIFE EVENTS, ATTRIBUTIONAL STYLE, SELF-ESTEEM, AND BEHAVIOR IN CHILDREN AGED NINE THROUGH ELEVEN YEARS

by

CONNIE BARBARA LINDSEY

A THESIS

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THE UNIVERSITY OF CALGARY FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "Life Events, Attributional Style, Self-Esteem, and Behavior in Children Aged Nine Through Eleven Years" submitted by Connie Barbara Lindsey in partial fulfillment of the requirements for the degree of Master of Science.

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ABSTRACT

To date there have been few studies examining life events with preadolescent populations, particularly in conjunction with attributional style, self-esteem, or teacher reported behavior problems and adaptive functioning. This study explored life events, attributional style, self-esteem, and teacher reported behavior problems and adaptive functioning in children aged 9.0 to 11.5 years. Additionally, gender differences with respect to the reporting of each of the psychological variables were examined.

Seventy subjects attending regular classrooms for all subjects and who had no discernable emotional, learning, or behavior problems were solicited and completed the Coddington's Life Event Schedule, Children's Attributional Style Questionnaire and Coopersmith Self-Esteem Inventory. Regular classroom teachers completed the Child Behavior Checklist. For the purpose of data analyses subjects were divided into two experimental groups based on gender (32 males and 38 females), and Hotelling's T's were performed on psychological variables. Pearson product-moment correlations were performed between certain psychological variables for each experimental group.

Gender differences were found with respect to life events in that females reported more positive life events than males, and with respect to attributional style, females reported a greater tendency to explain positive events with internal, stable, and global causes and negative events with external, unstable, and specific causes than the males. No gender differences were noted for self-esteem, negative, or total life events but teachers reported that males had

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higher behavior problem scores while females had higher adaptive functioning scores.

For males, correlational analysis revealed that as negative life events increased total behavior problem score, total adaptive functioning score, and all self-esteem variables decreased while internalizing and externalizing behaviors increased. Similar results were found with positive life events, except academic self-esteem and total adaptive functioning scores which increased proportionally with positive life events. Internal, stable, and global attributional style positively correlated with behavior problem scores, but negatively correlated with self-esteem and total adaptive functioning scores. As age and grade increased behavior problem scores decreased.

For females, correlational analysis revealed that as negative and positive life events increased self-esteem decreased, while depressed, internalizing, externalizing, and total behavior problem scores increased. Internal, stable, and global attributional style positively correlated with behavior problem scores, but negatively correlated with self-esteem and total adaptive functioning scores. As age and grade increased behavior problem scores decreased.

Results were discussed in relation to previous studies, and hypotheses for future research were formulated. The present study highlights the need to address both personal and environmental resources when examining stress in children and the need to examine the effects of stress separately for males and females, particularly for this age group.

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DEDICATION

This thesis is dedicated to my mother, Una Lindsey whose courage and strength has always been a source of inspiration for me and whose love, support, and faith have always been limitless, regardless of the pathways I have chosen to walk.

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CHAPTER ONE

INTRODUCTION

The recent upsurge of research pertaining to life events and childhood psychopathology seems to be, in part, a result of the associations found between adult psychological symptomatology and life events (e.g., Compas, Davis, & Forsythe, 1985; Goodyer, Kolvin, & Gatzanis, 1985, 1986; Swearingen, & Cohen, 1985). Research with adult populations has been extensively investigated and well documented (e.g., Bailey, & Garralda, 1987; Garrison, Schoenbach, Schluchter, & Kaplan, 1987), while studies focusing on children and adolescents have been few in number and limited in scope (e.g., Compas, Davis, Forsythe, & Wagner, 1987; Steinhausen, & Radtke, 1986). Furthermore, the majority of the current research with respect to children examines adolescent life events, presumably because adolescence is seen as a peak point in life for experiencing rapid changes and disorienting events (e.g., Compas et al., 1985; Newcomb, Huba, & Bentler, 1981; Siddique, D'Arcy, 1984).

In its original form the term "life event" was described as any significant change, either positive or negative which required an adjustment by the individual (e.g., Garrison et al., 1987; Rowlison, & Felner, 1988). This notion of life events has been criticized, however, because the majority of adult and a number of recent adolescent studies have shown that it is only the negative or undesirable life events which are related to mental health problems (e.g., Rowlison, & Felner, 1988; Siegel, & Brown, 1988; Swearingen, & Cohen, 1985a, 1985b). Bailey and Garralda (1987) and Goodyer et al. (1985) have found that life events which have a negative impact are associated with childhood psychiatric disorders. Furthermore, Siegel and Brown's data indicate that few positively related events in conjuction with a large number of negative events were predictive of subsequent distress in adolescents when looking at two domains of symptomatology (e.g., depressed mood and physical illness).

While the distinction between positive and negative when examining life events has contributed to the significance of the findings in many studies (e.g., Compas, Slavin, Wagner, & Vannatta, 1986; Davis, & Compas, 1986; Swearingen, & Cohen, 1985), Rowlison and Felner (1988) found that, although negative major life events were predictive of maladjustment across several domains, "...the proportion of the criterion variance explained by negative events was modest at best" (p. 44l). Consequently, researchers began to recognize the need to investigate mediating variables such as social support, locus of control and attributional style (e.g., Garrison, et al., 1987; Goodyer, 1985a, 1985b, 1987; Steinhausen, & Radke, 1986) in an attempt to unravel the spurious association found between life events and symptomatology.

Attributional style refers to the individual's tendency to associate bad events with stable or unstable, global or specific, and internal or external causes (Abramson, Seligman, & Teasdale, 1978). It is widely held that children who tend to attribute failure to stable factors beyond their control, such as low ability, are learned helpless. The reformulated learned helplessness model of depression specifically postulates that a stable, global and internal causal

attribution for negative outcomes will lead to decreased self-esteem and depression (Abramson, et al.). In contrast, children who tend to attribute failure to less stable, modifiable factors under their control, such as low effort, are mastery-oriented and do not show debilitating performance effects following failure (Diener, & Dweck, 1978; Dweck, 1975). Hammen, Adrian, and Hiroto (1988) found that a negative attributional style (i.e., learned helpless) in conjunction with an increased number of life events was a significant predictor of non-depressive disorders in children at risk for depression.

The need to distinguish between positive and negative life events is again highlighted when examining the few studies available which examine the relationship between self-esteem and life events (e.g., Simmons, Burgeson, Carlton-Ford, & Blythe, 1987). Self-esteem is a cognitive construct based on the individual's appraisal of self coupled with the individual's perception of worth designated to him/her by others. From the studies available, as would be expected, the greater the number of negative life events experienced by the individual the lower the self-esteem (e.g., Simmons, Burgeson, Carlton-Ford, & Blythe, 1987). Positive events on the other hand have been found to have a positive effect on self-esteem (Kashani, Hodges, Simonds, & Hilderbrand, 1981). Consequently, it is necessary to distinguish between the two types of events when examining the association between life events and self-esteem.

<u>Purpose</u>

The purpose of this exploratory study is to gather descriptive information regarding the following variables: 1) student reported positive and negative life

events, 2) student reported attributional style, 3) student reported self-esteem, 4) teacher reported behavior problems, and 5) teacher reported adaptive functioning for a nonclinical sample of children ages 9 years to 11.5 years. This developmental age group will be examined because previous studies have focused mainly on adolescent populations. This study will also explore gender differences with respect to the reporting of all psychological variables. The type, frequency, and students' perceptions (i.e., positive or negative) of life events reported by this age group will be examined. The relationships between life events (both negative and positive) and self-esteem and teacher reported behavior and adaptive functioning will be explored separately for the males and females. The relationship between attributional style and self-esteem and teacher reported behavior and adaptive functioning will be explored in a similar manner. Lastly, recommendations for future studies which examine life events in children of this age group will be made.

CHAPTER II

LITERATURE REVIEW

The significant association between life events and various adult psychological symptomatology has been well established (e.g., Bailey, & Garralda, 1987; Garrison, Schoenbach, Schluchter, & Kaplan, 1987). Originally, researchers (e.g., Brown, & Harris, 1978; Billings, & Moos, 1982) believed that all life events (i.e., both positive and negative) were stressful, and, therefore, the association between total life events and various psycho-physiological symptomatology was examined (cited in Hammen, 1988). Further research, however, which employed adult samples, found that it was not the total number of life events which had a negative impact on mental and physical health, rather, the negative life events were found to be strongly associated with poor mental and physical health (Siegel, & Brown, 1988). As a result of these findings, researchers began to investigate the effects of life events on the physical and emotional well-being of children, particularly adolescents, because it is considered to be a tumultuous period of development requiring adjustment in many areas (Compas, Davis, & Forsythe, 1985; Newcomb, Huba, & Bentler, 1981).

Research completed in the area of attributional style has attempted to unravel the association between an individual's tendency to attribute events in his/her life to either external or internal forces and depressive symptomatology (Abramson, Seligman, & Teasedale, 1978; Hammen, Adrian, & Hiroto, 1988; Seligman, et al., 1984). While the following review will focus primarily on research done in the area of life events with respect to children and adolescents, it is not meant to be exhaustive. A discussion of attributional style and self-esteem will follow the life events review.

Life Events

Studies completed in the area of life events with adult populations has evolved over the past thirty years, while those done with children and adolescents have only been a focus for researchers in the last decade. Further, this research has mainly focused on adolescents, using hospitalized or outpatient populations (Bailey, & Garralda, 1987). As early as 1972 the presence of stressors in children's lives was recognized by mental health professionals who began to question the effects of these stressors. It was not until the mid 1980's that researchers began to examine the association between life events and psycho/physiological symptoms in children (Bailey, & Garralda, 1987; Newcomb, Huba, & Bentler, 1981).

The term 'life event' as it applies to the Life Events Schedule employed in this study refers to any event in a child's life which requires a large degree of readjustment (Coddington, 1972a, 1972b). Some researchers refer to a life event as a stressor (e.g., McCubbin, Needle, & Wilson, 1985; Wertlieb, Weigel, & Feldstein, 1987). These researchers suggest that it is the degree to which a particular stressor affects the individual coupled with the number of stressors the individual has to endure which is associated with pathology. This is known as the cumulative stress hypothesis which posits that as the number of stressors experienced by an individual increases so does the risk for developing

psychiatric symptoms. Results from several studies support the cumulative stress hypothesis and indicate that it is the presence of multiple stressors which increases the child's risk of developing a behavioral disturbance (Cohen, Sandler, Berman, & King, 1982; Cowen, Lotyczewski, & Wessberg, 1984; Gersten, Langer, Eisenberg, & Simcha-Fagen, 1977; Hodges, Teirney, & Buchsbaum, 1984; Rutter, et al., 1974; Rutter, Cox, Tuplin, Berger, & Yule, 1975).

Considerable support for the cumulative stress hypothesis comes from Rutter's epidemiological investigation of 10 year old children in the Isle of White and inner London areas (Rutter, et al., 1974; Rutter, Cox, Tuplin, Berger, & Yule, 1975). In both studies extensive interviews with each family involved in the study were performed in order to gather stress information and the child's psychiatric state was used to make a diagnosis. Data analysis revealed, six family variables, all of which were strongly and significantly associated with child psychiatric disorders. These variables were designated as chronic risk factors and they included: 1) severe marital discord, 2) low social status. 3) overcrowding or large family size, 4) paternal criminality, 5) maternal psychiatric disorder, and 6) admission to the care of the government (Rutter, 1979). Once data collection was completed, the subjects were separated into groups based on the number of risk factors they had experienced. These groups were then compared in terms of the rates of psychiatric disorders found amongst them. Results indicated that the presence of one risk factor alone was not indicative of a psychiatric disorder, but the presence of two risk factors increased the

likelihood of a psychiatric disorder fourfold. Further, as the number of risk factors occurring simultaneously increased the risk of developing a psychiatric disorder also increased.

In a review of these two studies Rutter (1979) noted that "the stresses potentiated each other so that the combination of chronic stresses provided very much more than a summation of the effects of the separate stresses considered singly" (p. 52-53). Rutter suggested that, while these studies were concerned with chronic stressors only, the mere presence of these stressors increased the likelihood of many acute stressors occurring during the child's development.

Similarly, Kashani, Hodges, Simonds, and Hilderbrand (1981) found in their sample of 137 children aged 7 - 12 years that the hospitalized children experienced a significantly greater number of life events and a higher mean score of life events than that of the general public. The sample was divided into three groups (i.e., hospitalized psychiatric, hospitalized pediatric and non-patient non-hospitalized). Life event comparisons were made across the three groups with the number of subjects in each group totaling 37, 50, and 50, respectively. The parents of these children completed Coddington's (1972a, 1972b) Life Events Schedule for Children (LES-C). Significant differences were found between each of the groups when the total number of life events was used rather than the life change unit score associated with the LES-C. While these results support the cumulative stress hypothesis, they should be interpreted with caution in that these findings cannot be used to infer that life events cause certain psychological and/or physiological distress. Consequently, the authors concluded that the "...study of life events alone is not sufficient to infer a causal relationship between life events, onset of illness and hospitalization of children" (p. 221). Further, they suggest that one should take into account the concept of desirability/undesirability (i.e., positive or negative) for each life event and a stratification of the particular disorders when collecting the data.

Newcomb, Huba, and Bentler (1981) found distinct patterns of association between life events and psychological disturbance in adolescents. They administered a 39-item life events questionnaire to 1,018 adolescents who were already involved in a longitudinal study of adolescent growth and development. Newcomb et al. developed the questionnaire based on an examination of the literature pertaining to adolescents' exposure to experiences and activities. Canonical and product-moment correlational analyses were performed on the data to determine if the stress indices measured by the guestionnaire were significantly related to the following 8 domains of psychological functioning and health: 1) headache proneness, 2) insomnia, 3) injury hysteria, 4) depression, 5) trust in physicians, 6) trust in medicine, 7) illness sensitivity, and 8) thought disorganization. The analysis revealed that stressors associated with the family/parent, relocation, and distress indices were significantly related to insomnia, depression, and thought disorganization, while the accident/illness stress index was significantly related to headache proneness, insomnia, high trust in physicians and medicine, and illness sensitivity. With respect to adolescent stress, the authors concluded that there

is a "...degree of specificity between types of stress and health measures" (p. 412).

Cohen-Sandler, Berman, and King (1982) found, in their study of 76 children aged 5 - 14 years recently discharged from an inpatient psychiatric unit, that the suicidal children experienced increasingly and significantly greater amounts of stress than the psychiatric and depressed-nonsuicidal children. An exhaustive compilation of life events was obtained from medical charts and categorized according to the developmental period in which they occurred, as follows: 1) infancy (birth to 1.5 years), 2) preschool (1.6 to 4.5 years), 3) early childhood (4.6 to 8.5 years), and 4) later childhood/early adolescence (8.6 to 14.11 years). Of the total group, 20 were classified as suicidal, 21 as depressed-nonsuicidal, and 36 as nondepressed/nonsuicidal psychiatric. These classifications were based on descriptions of symptomatology, behavior, and family history. Events occurring in the 12 months prior to admission were recorded separately. The Coddington Life Event Schedule was then used to assess the amount of psychological stress, as indicated by the life change unit score, experienced by each child during each of the four developmental periods and during the 12 months prior to admission.

Data analysis revealed that the suicidal group experienced significantly greater amounts of the following events during the 12 months prior to admission and across the lifespan: temporary and permanent losses of a parent or grandparent due to illness, death, or divorce; a remarriage of one or both parents; or psychologically traumatic experiences such as witnessing the death of a friend or relative or observing the attempted murder of one parent by the other.

Support for the above findings comes from Pettifor and Perry's (1983) study of risk factors associated with adolescent suicides. When comparing 40 suicidal mental health clinic patients who had attended the clinic during adolescence and committed suicide up to thirty years following their first attendance the authors found that the suicidal group experienced significantly greater amounts of personal and social disruption in their lives, including unstable living conditions (i.e., large numbers of residential moves), high rates of separation and divorce with the natural parents, and separation from one or both parents. It was also found that suicidal adolescents received less emotional support from their parents. Consequently, Pettifor and Perry posited that the suicidal adolescents "...may have experienced more stress in their living situations and/or did not receive enough emotional support from their families to effectively deal with the problems" (p. 43).

Hodges, Tierney, and Buchsbaum (1984) investigated the effects of cumulative stress on preschool children (mean age 4.4 years) from divorced and intact families. They found that parental life events were a greater predictor of childhood maladjustment than the life events of the child for this particular age group. Nine domains of maladjustment were identified and correspond to the subscales of the Parent Checklist of Child Behavior (Hodges, Buchsbaum, & Tierney, 1983; cited in Hodges, Tierney, & Buchsbaum) and the Teacher Checklist of Child Behavior (Hodges, Wechsler, & Ballantine, 1979;

cited in Hodges, Tierney, & Buchsbaum). The four subscales used from the former instrument were anxious, distractible, fearful-depressed, and acting out toward parents, while the five used from the latter instrument were aggressive, dependent, poor task orientation, withdrawal, and anxious-depressed. Data analysis revealed that, regardless of marital status, high numbers of parental life events predicted dependency, poor task orientation, and distractibility, while high numbers of child life events increased the predictive power of the parental life events with regard to dependency only. Child life events did not predict adjustment better than the parent life events. The authors concluded that "parent life stressors may produce an additive effect to the stress of divorce on the child" (p. 616). The results may also be explained in developmental terms in that the preschool-aged children were exposed to greater amounts of parental life events due to a lack of autonomous life experiences.

In their sample of 1,038 adolescents, Siddique and D'Arcy (1984) found that stress was related to mental health as measured by the General Health Questionnaire (GHQ; Goldberg, 1978; cited in Siddique, & D'Arcy). Subjects' perceptions of stress in the areas of family, school, and peer groups were measured through the use of a questionnaire designed by the authors. Factor analysis of the GHQ performed by the authors revealed four dimensions of psychological well-being: anxiety, depression, social dysfunction, and anergia. Correlational analysis revealed that all sources of stress were significantly related to each of the psychological domains in a positive direction, with family stress showing relatively more consistent and larger correlations. The authors concluded that, in terms of adolescent adjustment, family stress is of central importance and has significant mental health consequences for the young person. However, one should be cautious when interpreting these results because the authors did not designate a control group and a clinical group. Therefore, these results are generalizable only to the population sampled.

Barron and Earls' (1984) study with a population of three year olds found that total family stress was significantly correlated with behavior problems. Behavior problems were measured by Richard and Graham's (1971) Behavior Screening Questionnaire (BSQ; cited in Barron, & Earl) which is a 50- item questionnaire dealing with the current behavior and emotional functioning of preschool children. As 12 of the items have been found to distinguish between children attending a psychiatric clinic and those who are not, it is the sum of these 12 items based on a 3 point rating scale which is used for a final score. Barron and Earls divided family stress into four variables: 1) marital rating of parents, 2) mental status of the mother, 3) total number of stressful events experienced by the family in the last year, and 4) number of moves over the child's lifetime.

When individually analyzed, each variable had a modest correlation with behavior problems, and a regression analysis revealed that each variable seemed to contribute about evenly to the variation in behavior problems. Consequently, a total family stress index was derived for each subject by summing the standardized scores in each of the four categories. When this index was correlated with the total BSQ scores it was found to have a significant correlation of r=0.41 (p<0.001). Further analysis, incorporating the inflexibility of the child and the negative parent-child interaction, revealed that the effect of family stress on the total BSQ score appeared to be increased by the indirect effects of inflexibility and negative parent-child interactions. According to the authors, these findings suggest that "...inflexibility of the child and quality of parent-child interaction have a direct effect on total BSQ scores, and that these two variables seem to represent important pathways through which family stress affects the presence of behavior problems in the child" (p. 30).

Cowen, Lotyczewski, and Weissberg (1984) measured stressful life events, risk resources, and school adjustment in 1,126 urban and suburban school-age children from grades one through four. Teacher ratings were obtained for: 1) physical and health characteristics, 2) recent critical life events, 3) special school services and activities, and 4) family background information. From this information both a risk index and a resource index were derived. The risk index was comprised of 33 items including: 1) illness above average, 2) physical handicap, 3) repeat in grade, 4) recent critical life events, 5) frequent visits to school principal, 6) mother employed, 7) father unemployed, 8) natural mother absent, and 9) natural father absent. The resource index was derived from 11 items including: 1) height above average, 2) attractiveness above average, 3) participation in a sport's program, 4) participation in chorus or band, and 5) both natural father and mother present. School adjustment was based on scores from the Classroom Adjustment Rating Scale (CARS; Lorion et al., 1975; cited in Cowen, Lotyczewski, & Weissberg) and the Health Resources Inventory (HRI; Gesten, 1976; cited in Cowen, Lotyczewski, & Weissberg), and ten adjustment variables were identified (e.g., acting out, shy-anxious, a total maladjustment score, good student, peer sociability, frustration tolerance, and a total competence score). Statistically significant correlations (p<.001) in the expected directions were found between risk and resource indices and each of the 10 adjustment variables. Further, when direct comparisons were made among three subgroups (i.e., low risk-high resource, high risk-high resource, high risk-low resource) from the normative sample, with each group being matched precisely for gender and suburban/urban residence, significant differences were found for each of the ten adjustment variables. The order of adjustment from best to poorest for each variable was: low risk-high resource, high risk-high resource, and high risk-low resource. The authors concluded that " the greater the risk and fewer the resources, the more maladjusted and less competent were children found to be" (p. 363).

Barocas, Seifer, and Sameroff (1985), in their examination of the data from the Rochester Longitudinal Study completed by Sameroff, Seifer, & Zas (1982), identified six risk factors which were associated with serious mental disorders in 48-month old children: 1) negative life events, 2) maternal hospitalizations, 3) number of children in the family, 4) maternal psychiatric status, 5) maternal cognitive orientation toward child-rearing, and 6) single parent family. Each risk factor was then related in combination with and independently to the two child outcome measures - intellectual, as determined by the Wechsler Preschool and Primary Scale of Intelligence (WPPSI), and social competence, as determined by the Rochester Adaptive Behavior Interview (RABI; Seifer, Sameroff, & Jones, 1981; cited in Baroca, Seifer, & Sameroff, 1985). Data analysis revealed that, with respect to intellectual functioning, subjects scoring in the bright-normal range were found to have experienced significantly fewer stressors than those scoring in the normal range. It is important to note that these findings suggest that a stressful environment may inhibit intellectual development rather than produce intellectual deficits. Corresponding to the intellectual functioning results, social competence was associated with fewer risk factors. ANOVAS remained significant and the pattern of group means was identical even when the effects of race and SES were partialled out, suggesting that these six risk factors may represent "...a subset of the specific psychological factors that mediate the relationship between SES and race, and child performance" (p. 440).

When regression analyses were performed in order to assess the independent effect of each risk factor, the zero order correlations revealed that, with the exception of maternal hospitalizations, each factor was uniformly related to social and intellectual functioning. However, when SES and race were controlled, these relationships diminished to the extent that most were no longer significant. Consequently, the authors examined the interactionary effects of maternal cognitive orientation and negative life events upon each of the dependent variables (i.e., social and intellectual performance). With respect to intellectual performance, a substantial effect was found for mother's cognitive orientation. When negative life events were added to this equation, however,

the interaction effect was minute. For social competence, results revealed that when negative life events were added there was an overall increase of more than 5% in terms of an interactionary effect. The authors concluded that "stressful events and cognitive protective factors interact and have significant effects upon the child's adjustment" (p. 444). When interpreting this conclusion, it should be noted that the life events and cognitive protective factors measured in this study were maternal. Due to the ages of the subjects it is highly probable that life events experienced by the mother were experienced by the child as well, albeit indirectly.

McCubbin, Needle, and Wilson (1985) investigated the degree to which adolescent family strains and stressors and adolescent coping strategies affected certain adolescent risk behaviors (i.e., cigarette, alcohol, and marijuana use). The total number of families involved was 505, with subjects totalling 279 females and 262 males. Subjects were separated according to gender, with data analysis perfomed separately for each group. Adolescent family strains and stressors were collected using the Adolescent Family Inventory of Life Events and Changes (McCubbin, Patterson, Bauman, & Harris, 1981; cited in McCubbin, Needle, & Wilson) and divided into two categories - family strains (i.e., those strains which did not affect the adolescent directly) and adolescent-family stressors and strains. Adolescent coping strategies were measured with the Adolescent Coping Orientation for Problem Experiences (Patterson, & McCubbin, 1982; cited in McCubbin, Needle, & Wilson) which consists of 12 subscales or coping styles. Only six of the 12 coping styles were

used in this study: 1) family problem solving, 2) seeking spiritual support, 3) engaging in demanding activity, 4) ventilating feelings, 5) developing close friendship support; and 6) developing social support. Correlational analyses revealed that these coping styles fell into one of two categories; those which tended to reduce or minimize the adolescents' involvement in the health risk behaviors and those which tended to encourage involvement in these types of behaviors, with the first three falling into the former category and the last three falling into the latter.

Stepwise regression analysis found that female cigarette use was significantly predicted by family problem-solving coping style, ventilation coping style, and pile-up of adolescent-family stressors and strains, with these three variables accounting for 15% of the variance in cigarette smoking for this group. Female alcohol use was found to be influenced by adolescent family problem-solving, seeking spiritual support, ventilating feelings, and developing close friend support coping styles, coupled with the pile-up of adolescent strains and stressors (i.e., 11% of the variance in female alcohol use was mediated by these variables). Results pertaining to female marijuana use were not as significant, with only 9% of the variance in this area being explained by family problem-solving coping style, pile-up of family strains, and adolescent-family stressors and strains. With respect to male risk behaviors, 14% of the variance in cigarette smoking was mediated by family problem-solving coping style, and pile-up of adolescent-family stressors and strains. A significant portion (12% of the variance) of male alcohol use was explained

by these variables as well, with the addition of the close friendship coping style.

The study suggests that, with respect to adolescent health risk behaviors, there appears to be an interaction of a complex set of family system factors including family stressors and strains and the adolescent's repertoire and style of coping with the pile-up of family-related demands which significantly influences adolescent cigarette, alcohol, and marijuana usage. The authors noted that "...the stepwise regression analyses established the importance of the accumulation of adolescent-family stressors and strains as a predictor of the adolescent health risk behavior of using cigarettes, alcohol, and marijuana" (p. 59).

Swearingen and Cohen (1985) found high levels of negative life change to be associated with maladjustment in their longitudinal study of the effects of life events on psychological disturbance in adolescence. Two hundred and thirty-three seventh and eighth graders from 5 Middle Atlantic schools were assessed at Time 1 and at Time 2 (approximately 5 months later) 79 of these subjects were reassessed across the same domains. The three criteria used for maladjustment were depression, as measured by the Child Depression Inventory (CDI; Kovacs & Beck, 1977), and state and trait anxiety, as measured by the State-Trait Anxiety Inventory for Children (Spielberger, 1973; cited in Swearingen, & Cohen). Data analysis at Time 1 revealed that, regardless of how the events were scored either accumulated by total number or by weighting each according to adjustment required, both indices appeared to be equally powerful in predicting maladjustment. When events were divided into positive and negative categories based on self-reports, the negative events were significantly correlated in the expected direction with each of the three domains of maladjustment, while the correlations involving positive events did not reach statistical significance.

Multivariate hierarchical regression analysis on Time 1 data, using the number of negative events, the number of positive events, and the interaction of the two as predictor variables for each of the maladjustment criteria, revealed a significant main effect for negative events. This effect was in the positive direction and was found with each of the three maladjustment criteria (i.e., depression, state anxiety, and trait anxiety). Effects associated with positive events and the interaction of negative x positive events were nonsignificant. Time 2 data analysis, using the same statistical technique, revealed significant main effects for both positive and negative events. The univariate analysis performed on the Time 2 data revealed results similar to those of Time 1 previously mentioned, with the exclusion of trait anxiety. Further, the effect of positive events on depression was negative and close to significant and the negative events x positive events interaction was significant for state anxiety. The authors concluded that, although these findings do not produce strong support for the stress buffering hypothesis, the results suggest that the presence of positive events counteracts the effects of negative events, and that computing separate indices of negative and positive events for adolescents would increase the predictive power of these types of studies.

Goodyer, Kolvin, and Gatzanis (1985) compared the number and type of

recent life events for 157 psychiatric adolescents attending an out-patient clinic and 76 controls drawn from the same geographical area. The life events were gathered using a modified version of Kolvin's (1984; cited in Goodyer, Kolvin, and Gatzanis) adaptation of Coddington's (1972a, 1972 b) Life Events Schedule for Children and Adolescents (LES-C). For analyses purposes, the authors divided the events into two groups according to the degree of negative impact (moderate to severe and mild or no impact). The psychiatric sample was divided into four clinical groups: 1) conduct disorder, 2) mild emotional disorder, 3) severe emotional disorder, and 4) somatic disorders. Each clinical group was matched with controls for age, sex, and social class and life events between each clinical and control group were analyzed using t-tests. Results revealed that for mild events the conduct disorder group alone had significantly more life events than controls. However, there was a significant difference between all four clinical groups and their controls when severe life events were examined. From these results the authors concluded that a significant association exists between recent life events and each of the four clinical groups (i.e., conduct, mild emotional, severe emotional, and somatic disorders) employed in this study. They also suggested that the contextual rating of life events is important for children and adolescents as events with a severe impact seem to be the most significantly associated with the psychiatric symptoms.

In 1987 Goodyer, Kolvin, and Gatzanis re-analyzed the above data to determine if timing and number of events would have any relationship with the clinical groups identified. Timing of events was divided into three 4-month

periods prior to the onset of the disorder. For events occurring in the first 4month time period, they found a significant association between multiple events and onset of symptoms, with 31% of their psychiatric sample experiencing a single event compared to 71% experiencing multiple events. For those individuals who experienced events in the third 4-month period, they were more likely to experience a single event rather than multiple events, with single event cases comprising 44.5% and multiple event cases comprising 9.6%. There were no significant associations found for the 17-35 week period, nor were any found when the timing of events for the community controls was examined. The authors posited that "short term effects are more likely in multiple-event cases, whereas long term effects are more likely in single-event cases" (p. 181). These results support the notion of the cumulative effects of recent stressful events in some cases of emotional and behavioral disorders in childhood.

Davis and Compas (1986), using adolescent and young adult subjects between the ages of 12 and 20 years, analyzed adolescent cognitive appraisals of major life events as compared to stressful life events. Subjects rated events according to 10 categories: 1) impact, 2) desirability, 3) frequency, 4) ability to cope, 5) the degree of support from others, 6) locus of cause (individual vs external factors), 7) personal controllability of cause, 8) stability of cause (enduring or transient), 9) generality of cause, and 10) predictability. The categories were chosen on the basis of findings from previous studies indicating that they represent characteristics of events that affect the relationship between life events and disturbance. Davis and Compas found that younger adolescents appraised events on only one dimension, desirability, while middle to older adolescents' assessments were more descriptive, using more of the categories. Results also indicated that perceived ability to cope was related to frequency of events, with rare events appraised as more difficult. The authors noted that "major life events (infrequent in occurrence and highly undesirable) may be appraised as the most challenging to personal coping resources" (p. 387).

Kashani, Holcomb, and Orvaschel (1986) employed a sample of 109 children enrolled in two nursery schools in order to assess the relationship between depressive symptoms and life events. Both the total number of life events and the weighted adjustment score as measured by The Coddington Life Events Schedule for Preschool Age Children (Coddington, 1972a, 1972b) were used as dependent measures. The presence of depressive symptoms was assessed by the General Rating of Affective Symptoms for Preschoolers (GRASP; developed by Orvaschel; cited in Kashani, Holcomb, & Orvaschel) and a depression checklist which included 19 symptoms related to major depressive and dysthymic disorders as defined in the DSM-III (American Psychiatric Association, 1980). Data analysis indicated that children with depressive symptoms had significantly more life events than those without symptoms, when using parental reports. While the two sample groups did differ with respect to the number of life events experienced, the statistical analyses performed were not sophisticated enough to examine the etiological role of life events for children who develop depressive symptomatology. Additionally, the authors did not examine negative and positive life events separately which may have confounded their results.

Steinhausen and Radtke (1986) compared 54 children and adolescents admitted to a child psychiatric out-patient clinic with 54 control subjects attending private pediatric practice for ordinary infections of childhood. Life events were assessed by parental reports on the Coddington Life Events Schedule. Life events were then divided into recent (occurring in the past 6 months) and past (occurring prior to the 6 month cut-off) and scored according to the total adjustment weighting of events, the total number of events, and the total number of undesirable events. Child psychiatric diagnosis, intellectual level, and prosocial situation were the dependent criteria used. This data came from extended child psychiatric assessments made by different clinicians. Data analysis revealed no significant differences between the clinical groups and the community groups with respect to all categories of recent life events. Significant differences emerge, however, when analyzing the past life events. Clinical groups were found to experience significantly greater amounts of life events, including undesirable events, than the community controls.

Compas, Slavin, Wagner, and Vannatta (1986) assessed the relationship of social support and life events with psychological dysfunction, using 243 high-school seniors planning to attend a northern university. Subjects were asked to complete the Life Events Questionnaire (LEQ; Newcomb, Huba, & Bentler, 1981; cited in Compas, et al.), the Social Support Questionnaire (SSQ; Sarason, Levine, Basham, & Sarason, 1983; cited in Compas, et al.), and the

Hopkins Symptom Checklist (HSCL; Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974; cited in Compas et al.). Results indicated that, for this sample, positive events were experienced significantly more often than negative events and that both weighted negative events and lower satisfaction with social support were significantly related to total symptoms.

Multiple regression analysis revealed that weighted negative events alone accounted for 6% of the variance in symptoms, and, when satisfaction of social support was added to the equation, there was a significant increase in the proportion of the variance. Entering the interaction of weighted life events times satisfaction with social support, however, did not result in a significant increase in the proportion of the variance explained. The authors concluded that "a significant relationship exists between satisfaction with social support and dysfunction independent of perceived negative events, with satisfaction with support and negative events explaining equal portions of the variance in symptoms" (p. 218). Because satisfaction with social support and negative life events did not interact in their relationship with dysfunction, the notion that social support increases in importance as negative events increase was not supported.

Wertlieb, Weigel, and Feldstein (1987), using a sample of 159 children with a mean age of approximately 8 years and their mothers already participating in a longitudinal study on stress and health, examined the moderating effects of social support in the relationship between major life events and behavior symptoms. Of the 159 families assessed, 35 were

experiencing marital separation or divorce and were considered to be a high stress group. Life events, daily hassles, social support, and behavior symptomatology were measured according to maternal reports. In order to obtain more specific descriptive results, life events were divided into categories according to desirability, undesirability, family, and a total score. For the same reason, behavior symptoms were divided into total severity, internalizing, and externalizing categories. As with previous studies, the results revealed a highly significant positive relationship between life stress and behaviour symptoms. Further analysis revealed statistically significant independent main effects for desirable events, undesirable events, hassles, and social support, with each contributing to 32% of the variance in total behavior symptoms. Separate analysis using only stress score indices again revealed highly significant effects for desirable life events, undesirable life events, and hassles. The interactionary effect of social support with each stress index was also examined in this manner and was found to be significant for both undesirable events and hassles. Overall, symptom levels were lowest for those children who experienced fewer undesirable life events or higher levels of support, while those who experienced low support and many life events were found to have higher levels of behavior symptoms.

One could hypothesize that desirable life events do have some degree of negative effect on behavior symptoms, indicative of a buffering effect, while undesirable life events have a much stronger positive relationship with behavior symptoms. Thus, the implication of these results for future research is that,
when assessing and analyzing life events, particularly with the LES-C, they should be distinguished in either a desirable (positive) or undesirable (negative) manner. With respect to social support, the results from the above study also support the notion of a stress buffering effect when examining the relationship between negative life events and behavior symptomatology.

Wertlieb, Weigel, Springer, and Feldstein (1987) re-examined the aboved data by excluding the social support scores and incorporating temperament scores (as measured by the Middle Childhood Temperment Questionnaire; MCTQ; Hegvik, McDevitt, & Carey, 1982; cited in Wertlieb, Weigel, Springer, & Feldstein) in order to examine the mediating effects of temperament on the relationships amongst life events, hassles, and behavior symptoms. The MCTQ contains nine scales which include: activity, adaptability, approach, distractibility, intensity, mood, persistence, predictability, and threshold. All nine temperament scales were used for analyses purposes.

A step-wise multiple regression analysis revealed that both indices of stress (i.e., life events and hassles) and five (i.e., adaptability, approach, intensity, distractibility, and threshold) of the nine temperament scales had significant main effects on total behavior symptom severity, suggesting that both indices of stress contribute to behavioral outcomes. Further investigation, using separate regression analysis for each stress variable indicated that life events (i.e., undesirable and desirable events), five of the nine temperament scales, and hassles all had significant predicative power. In order to investigate the interactionary effects of stress x temperament, a multiple regression model was performed using stress indices only as parts of interaction terms. The model found that the adaptability and intensity temperaments exhibited significant main effects on the behavioral symptomatology and that three additional temperament scales (i.e., approach, distractibility and threshold) emerged as elements of interaction terms. Additionally, the relationship among stress, temperament, and symptomatology accounted for more variance in externalizing behaviors than internalizing behaviors. The authors concluded that higher levels of stress, regardless of the type (i.e., life events or daily hassles) were associated with higher levels of behavioral symptoms. Although statistical evidence was obtained for the stress buffering effects of temperament, the failure of these effects to enhance the predictive power of the model suggests that the simpler, more parsimonious, independent main-effects model may be more useful.

Cohen, Burt, and Bjorck (1987) used a longitudinal design to assess the effects of life events experienced by young adolescents and their parents on the adolescents' depressive symptoms, anxiety, and self-esteem. One hundred and forty two parent families participated at Time 1 and again approximately 5 months later at Time 2. Adolescent life events were assessed according to the following criteria: negative, positive, controllable negative, uncontrollable negative, and parent-controlled negative for adolescent events. When the criterion scores for Time 1 data were controlled, Time 2 data analysis revealed significant main effects in the expected directions for negative events with respect to all three symptomatology criteria (i.e., depression, anxiety, and self-

esteem). However, when the interactionary effect of negative events x positive events was assessed in this manner, this interaction was found to be significant in the prediction of Time 2 girls' self-esteem (i.e., as positive events increased the significant negative association between negative events and self-esteem weakened). These results support the hypothesis that negative life events for adolescents (whether controllable or uncontrollable) can be predictive of later psychological functioning, including depression, anxiety, and self-esteem. The stress buffering effect of positive life events on these psychological variables, while not so apparent, was supported for females with respect to self-esteem.

Walker and Greene (1987) examined the moderating effects of personal efficacy, family resources, and peer support with regard to the relationship between negative life events and psycho-physiological symptoms in 123 adolescents, ranging in age from 11 to 19 years. Subjects were patients attending an out-patient adolescent university medical clinic for various reasons, including routine examinations, chronic illness, and behavioral or emotional problems. Only negative life events were used for data analyses and symptom levels were determined by scores from The Health Opinion Survey (HOS; Leighton, Harding, Macklin, MacMillan, & Leighton, 1963; cited in Walker, & Greene).

The following results were obtained using hierarchical regression techniques. Age and negative life events accounted for a significant proportion of the variance in symptomatology (8-10%), with females reporting significantly more symptoms. When personal efficacy was added to the age x negative life events x sex equation, it was found to have a direct significant effect on symptom level, but did not contribute to the variance found in the interactionary effect. Peer support was also found to have a significant direct effect on symptom level and accounted for a small, but significant, increase in the variance of HOS scores when using a three way interaction equation (i.e., sex x negative life events x peer support). Regression lines for both sexes with high and low peer support indicated that this variable acts as a buffer for males only in that, as peer support increased for the male subjects, the relationship between HOS scores and negative life events decreases.

With respect to family cohesion, it appears that this variable acts as a buffer for those adolescents who report few negative life events. Only at low levels of negative life events did this variable differentiate among the adolescents. Low family cohesion was reported by those experiencing frequent life events. The authors concluded that "taken together, [these] results do not so much identify buffers of negative life events as point out resources that may influence adolescent symptomatology regardless of such events" (p. 34). It appears that personal efficacy, peer support and family cohesion are important predictors of adolescent well-being as they accounted for significant portions of the variance in symptoms beyond that which was explained by sex and negative events. The nature of these significant interactions suggests that lack of these resources may be associated with high symptomatology, even in the absence of negative life events.

Bailey and Garralda (1987) investigated the effects of life events on

children, aged 7-12, attending primary care centers or surgeries within the Greater Manchester area and compared these results with a sample from the general population. They found no significant differences between the two groups, even when events were classified according to desirability, specificity, or exit/entrance. However, when the researchers examined the differences according to psychiatric dysfunction significant differences did emerge. Psychiatric dysfunction was divided into two classifications: psychological deviance as determined by parental questionnaires, and psychiatric disorder as determined by psychiatrists' ratings of parental interviews. Data analysis revealed that deviance was linked to total life events and marked negative impact events, whereas psychiatric disorder was only associated with marked negative impact events.

Garrison, Schoenbach, Schluchter, and Kaplan (1987) examined the socio-demographic and school-related characteristics associated with various life events as measured by Coddington's Life Event Schedule in a sample of 677 junior high school students. Data analysis revealed significant relationships between the school performance variables and life events, with an increase in total and undesirable scores as grades fall and days absent increase. This trend was more significant when undesirable life events, such as parental divorce, parental hospitalization, personal hospitalization, and death of a close friend were considered. Further, it was found that students with failing grades reported fewer, although not significantly less, desirable events than those with grades of D or better. The authors concluded that high levels of stress coupled with limited coping skills may have adverse effects on school performance and noted the need for further research in this area.

Siegel and Brown (1988) measured stressful life circumstances using The Feel Bad Scale (Lewis, et al., 1984; cited in Siegel, & Brown) and its association with illness symptoms and depressed mood in 212 adolescent females ranging from grade 7 through to grade 11. The Feel Bad Scale consisted of 20 commonly occurring stress-provoking circumstances. Each subject was asked to indicate which, if any, circumstance they had experienced and to rate the event according to good or bad. Data was collected at Time 1 and again 8 months later at Time 2. Bivariate correlations revealed that, at both Time 1 and Time 2, the negative circumstances score was significantly associated with illness symptoms.

A regression analysis revealed that the positive cirumstances x negative circumstances interaction term significantly improved the prediction of illness reporting. Further examination of this interaction revealed that negative circumstances were associated with greater illness only when positive circumstances were low. Similar results were found when using depressed mood as a dependent variable. At both Time 1 and Time 2, the negative circumstances score was significantly associated with depressed mood and a marginally significant positive x negative circumstances interaction was found when a regression analysis was performed. Further examination revealed that high negative circumstances contributed substantially to the development of depressed mood when positive circumstances were low, but had little effect on

mood when positive circumstances were high. The authors concluded that this data supports the notion that the accumulation of stressful life circumstances, in combination with the interpretation of few of these as being positive, is related to future poor health, both physical and mental.

Rowlinson and Felner (1988) found that both distal major life events and proximal daily stressors had important degrees of unique and shared variance with adaptive functioning. Major life events were assessed using Johnson and McCutcheon's Llfe Events Checklist (1980; cited in Rowlinson, & Felner) which contains 46 major life events frequently experienced by older children and adolescents. Adaptive functioning was measured across various domains, using several instruments, including a depression inventory, an anxiety scale, a self-appraisal inventory, academic measures, and a general health questionnaire. From these instruments six adaptive functioning criterion variables were identified for statistical purposes: 1) grade point average, 2) absences, 3) teacher-rated adjustment, 4) parent-rated adjustment, 5) negative affect, and 6) physical symptomatology.

Using a hierarchial regression analysis, the authors found that the experience of bad events and daily hassles significantly predicted outcome in all but one of the adjustment variables - teacher-rated adjustment. However, the latter was significantly related to bad major life events. Furthermore, a buffering effect for good events was found for three of the adjustment variables (i.e., grades, absences, and negative affect) in that the good events significantly contributed to the prediction equation after the effects attributed to bad events

were partialled out. Rowlinson and Felner posited that "daily hassles and major life events represent conceptually different sources of life stress, each of which can make an independent contribution to the individual's overall level of functioning" (p. 441), and that in contrast to negative events, positive major life events were predictive of better adjustment in three of the six domains identified.

Hammen (1988) found, in his examination of self-cognitions and stressful life events in the prediction of depression in children of depressed mothers, that high levels of stress coupled with low self-concept were associated with both depressive and non-depressive disorders in children. Seventy-nine children aged 8 - 16 years of unipolar (16), bipolar (10), medically ill (18), and normal (35) mothers were given diagnoses according to the K-SADS (cited in Hammen), a diagnostic instrument for depression. Subjects also completed the Children's Depression Inventory (Kovacs, 1981) and The Piers-Harris Children's Self-Concept Scale (Piers, & Harris, 1969). Stressful life events were obtained informally using an interview procedure in which the children were asked if they had experienced any changes in the following 12 areas: family, friends, pets, school, health, neighborhood, activities, moves, accidents, finance-related problems, problems with the law or other authorities, and major disappointments. Events involving other family members that affected the child directly (e.g., maternal employment) were gleaned separately from the mothers.

Hierarchical multiple regression analyses were performed in order to predict affective and non-affective disorders. For depression, it was found that

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stress and lowered self-concept had strong main effects which worked additively, rather than interactively, in the prediction of depressive disorder. With regards to non-depressive disorders all predictor variables, with the exception of self-concept scores, contributed significantly to a non-affective diagnosis. Further, the interactionary term of high stress x low self-concept was found to be predictive of the most severe disorders in the non-affective group (i.e., conduct disorders, substance abuse, and anxiety). The authors concluded that "children who evidence negative self-regard and self-efficacy beliefs are presumed to interpret events negatively and to show diminished efforts to persist in self-enhancing activities and coping behaviors" (p. 358).

Attributional Style

The attributional theory to be discussed was formulated by Seligman (1975) and was a result of research done in three areas: Beck's (1976) cognitive distortion model of depression, contingency learning in experimental animal psychology, and learned helplessness as it pertains to depressive symptomatology. As a result of investigating cognitive distortions in depressed adults, Beck found that depressed adults exhibited the following characteristics - a negative view of themselves, their future and the world as a whole. Consequently, Beck's model espoused that depressed individuals have a triad of cognitive distortions which cause them to view the world in deprecatory terms, to interpret experiences in a negative way, and to have pessimistic expectations about the future. This negative triad is then maintained by a cognitive process in which the individual negatively distorts his/her experiences

by employing specific dysphoria-provoking cognitive errors when faced with ambiguous or negative life experiences. These cognitive errors include: 1) selective abstraction, 2) overgeneralization, 3) catastrophizing, 4) thinking dichotomously, 5) assuming excessive responsibility or personal causality, 6) presuming temporal causality or predicting without sufficient evidence, and 7) making self-references (Beck, 1976; Beck, Ruth, Shaw, & Emery, 1979).

Similar to the adult research in depression, investigations of the role of cognitive distortions in childhood depression have revealed that depressed children make more cognitive errors than nondepressed children (Leitenberg, Yost, & Carroll-Wilson, 1986). Kaslow, Tanenbaum, Abramson, Peterson, and Seligman (1983) found that, similar to depressed adults (Klein, Fencil-Morse, & Seligman, 1976), depressive symptoms among fourth and fifth graders were strongly correlated with impaired problem solving. Furthermore, like depressed adults, depressed children tend to hold negative expectations about themselves and the future; in other words, they experience feelings of hopelessness (Kazdin, French, Unis, Esveldt-Dawson, & Sherick, 1983).

Concomitant to the development of Beck's cognitive distortion model of depression, investigations into the etiologic role of learned helplessness in depression began to unfold (Abramson, Seligman, & Teasdale, 1978; Peterson, & Seligman, 1984; Seligman, 1975). The concept of learned helplessness was discovered as a result of animal experiments in which dogs were repeatedly exposed to uncontrollable, inescapable electric shocks. The experiments revealed that dogs exposed to this type of treatment "...made few attempts to

escape the shock (motivational deficit); they were not likely to follow an occasionally successful response with another (learning or cognitive deficit); and they did not evidence much overt emotionality while being shocked (emotional deficit)" (Peterson, & Seligman, 1984, p. 347). Consequently, the term "learned helplessness" was coined and used to describe these deficits which, in essence, result in learning that all responses are independent of reinforcement (i.e., the dogs learned that regardless of what they did or did not do the shocks would continue) (Klein, Fencil-Morse, & Seligman, 1976; Seligman, Maier, & Soloman, 1971). This "...expectancy that responding will be ineffective reduces the incentive to initiate instrumental responses and disrupts later learning of response-reinforcement contingencies" (Klein, Fencil-Morse, & Seligman, p. 508). These results were demonstrated in a variety of situations, with a variety of uncontrollable events, across a number of species, including rats, cats, mice, and men (Seligman, 1975). Further, Mayer and Seligman (1976) found that it was the uncontrollability of the electric shocks and not their traumatizing properties that caused the learned helplessness.

Seligman (1974, 1975) took this concept of learned helplessness, applied it to humans, and posited that it was the individual's experience of negative or positive events, independent of his/her behavior, which created the motivational, cognitive, and affective symptoms of depression. Within this framework, the individual adopts the belief that all future events are beyond his/her control. Further investigations, however, revealed three aspects that the theory could not explain: "1) the role of individual differences in response to uncontrollability, 2) the boundary conditions of the generality of helplessness, across time and situation, and 3) the frequent loss of self-esteem observed among depressives" (Seligman, & Peterson, 1986, p. 226).

In addressing these issues, Abramson, Seligman and Teasdale (1978) introduced the following three dimensions of attribution: internal-external causality, stable-unstable in time, and global-specific situations in what they termed the "reformulated theory of learned helplessness". This new model incorporates the notion that causal attributions about the uncontrollable events are important determinants in the generality of induced deficits and the role of self-esteem. When bad events are explained according to internal (personal) as opposed to external (universal) causes and seen as stable (recurrent) rather than unstable (intermittent) over time and occurring globally rather than in specific situations, then feelings of helplessness, depression and lowered self-esteem can occur. If an individual continually uses this type of attributional style when a bad event is experienced, the style then becomes habitual and can predispose an individual to depression when bad events are encountered (i.e., he/she is likely to be depressed and helpless when bad events occur) (Seligman, Abramson, Semmel, & vonBaeyer, 1979; Seligman, Peterson, Kaslow, Tanenbaum, Alloy, & Abramson, 1984). Seligman and Peterson (1986) describe this new model as a diathesis-stress model of depression in that "neither the attributional style nor the uncontrollable events alone result in widespread helplessness and depression; only their co-occurrence leads to depression" (p. 227).

Due to the belief that the reformulated theory was a general theory and should therefore explain depression across the life span (Seligman, & Peterson, 1986), Seligman et al. (1984) conducted an investigation to see if this depressive explanatory style was applicable to childhood depression. Ninety-six nonhospitalized children, aged 9-13, completed the Children's Depression Inventory (CDI) and the Children's Attributional Style Questionnaire (CASQ) developed by Peterson and Seligman (1984) twice on a six month interval schedule. The latter questionnaire is a forced choice instrument which reflects how a child characteristically explains good and bad events. Consistent with the research findings using adult subjects, Seligman et al. found attributional style and depressive symptoms to be relatively stable over time and strongly correlated with one another. Those children with a tendency to explain bad events according to internal, stable, and global causes and good events according to external, unstable, and specific causes reported significantly more depressive symptoms than those who attributed bad events to external, unstable and specific causes. Further, an internal, stable, global attributional style for bad events seemed to be predictive of depression in children six months later. In order to investigate the social-cognitive and cognitive correlates associated with depression, Kaslow, Rehm, and Siegel (1984) administered the CDI, the Coopersmith Self-Esteem Inventory (SEI), and the CASQ to a sample of 108 non-clinical children in grades 1, 4, and 8 (with 36 from each grade). The Achenbach Teacher Rating Scale was completed by the teachers for each of the subjects. The CDI was administered again three weeks later, along with a Masking Symptom Questionnaire and social-cognitive tests.

Data analysis revealed the depressed children (those with a mean score of II or greater on the CDI) exhibited more internal, stable, and global attributions for bad events and more external, unstable, and specific attributions for good events than the nondepressed children. Further, they displayed significantly more of the following characteristics when compared to the nondepressed group: 1) lower self-esteem, 2) more self-control deficits, 3) a negative self-evaluation, 4) lower expectations for performance, 5) more stringent criteria for failure, 6) a preference for punishment over reward, and 7) impaired performance on specific cognitive tasks (e.g., Block Design, Coding, and Digit Span subtests of the Weschler Intelligence Scales for Children -Revised). Results from the Achenbach Teacher Rating Scale indicated that the depressed children displayed more internalizing behavior symptoms than nondepressed (e.g., depressed, anxious, schizoid, withdrawn, somatic complaints, and obsessive-compulsive). The authors concluded that age-related differences existed when examining specific variables, such as specific masking symptoms and stability of attributions, but this difference was not evident in the global score of the depressive symptomatology.

In a longitudinal study of depressive symptoms, life events, and attributional style in 168 school children aged 8-11, Nolen-Hoeksema, Girgus, and Seligman (1986) attempted to distinguish a number of helplessness deficits associated with those subjects who displayed a depressive attributional style. Subjects were given the Children's Depression Inventory, the Children's Attributional Style Questionnaire, and the Life Events Questionnaire. The deficits were defined as: cognitive, sadness, lowered self-esteem, lowered response intiation (passivity), and lowered assertiveness and competitiveness. Life events were also measured in order to determine the diathesis-stress component of the model (i.e., to determine how attributional style interacts with life events).

Results from this study substantiated those found in previous studies in that those children who displayed a tendency to explain bad events by internal, stable, and global causes and good events by external, unstable, and specific causes reported more depressive symptomatology and exhibited more achievement-related problems, while the nondepressed children showed the reverse. The data analysis also revealed that attributional style at one time was predictive of depression at a later date. Lastly, with regard to the life events interaction, it was found that bad life events interacted with attributional style to predict depression in some of the subjects, but this seemed to be dependent upon the severity of the life event (e.g., death of a parent). In other words, it seemed that the more severe life events interacted with the depressive attributional style to make children vulnerable to depression.

<u>Self-Esteem</u>

An individual's self-concept is based on the perceptions one has of him/herself and develops according to his/her interactions with the environment. Due to the latter, a person's self-concept may change according to the situation in which the individual finds him/herself. Out of this concept comes the notion of self-evalution which is based on the individual's and others' positive and negative reactions to him/herself. It involves a judgmental process whereby an individual examines his/her capacities, performances, and attributes in order to determine his/her worthiness. It is the self-evaluation process which reveals an individual's degree of self-esteem, which then largely shapes the self-concept (Videbeck, 1965). Hechtman, Weiss, Perlman, Hopkins, and Wener (1979) characterized high self-esteem as a sense of well-being, responsibility, socialization, self-control, good impressions, achievement, and intellectual efficiency.

The processional perspective views self-esteem as a fluctuating self-attitude which is comprised of a baseline or standard self-evaluation coupled with situational fluctuations from this baseline. These fluctuations are dependent upon the situational characteristics one encounters such as changing roles, expectations, performances, and responses from others. According to this approach an individual may possess a favourable attitude about him/herself, including self-respect and self-worth, but on certain days and in certain situations he/she may feel better or worse about him/herself (Demo, & Savin-Williams, 1983).

The structural perspective (Coopersmith, 1967; Rosenberg, 1979), on the other hand, defines self-esteem as a global positive or negative self-evaluation. According to this view, an individual's self-esteem is seen as "...a personality trait characterized by considerable stability from one situation to the next, even from year to year" (Demo, 1985, p. 1491). More specifically, it is the content of

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an individual's opinions and perceptions about the self (i.e., the positive or negative perceptions of values and attitudes by which the individual view the self) which explain his/her self-concept or self-image. These judgements and attitudes then form the self-esteem which "provides a mental set that prepares the person to respond according to expectations of success, acceptance, and personal strength" (Coopersmith, p. 5). Coopersmith goes on to explain that self-esteem "...is a subjective experience conveyed to others by verbal report and other covert expressive behavior" (p. 5).

Because low self-esteem is generally taken as a key defining characteristic of a depressive attributional style, only those studies which examine this relationship will be discussed. Feather (1983) reported that individuals with high self-esteem are more likely to attribute successful outcomes to themselves and to ascribe failures to external causes when compared with individuals with lower self-esteem. For example, Fitch (1970) found, when examining the effects of causal attributions on the self-esteem in adult subjects, that individuals with both high and low self-esteem took credit for success, but the low self-esteem individuals made more internal causal attributions for their failure. Further, studies investigating childhood depression and self-esteem have found significant correlations between depression and low self-esteem (e.g., Hammen, 1988; Leitenberg, Yost, & Carroll-Wilson, 1986).

Ickes and Layden (1978) noted the similarity in self-esteem and attributional style between depressed and nondepressed low self-esteem

individuals: "The self-esteem level and attributional style of clinically depressed patients appear to be essentially similar to those of the normal but low self-esteem subjects" (p. 144). Results of Tennen, Herzberger, and Nelson's (1987) study substantiated this claim. They found that subjects low in self-esteem, but not depressed, made more internal and stable attributions for failure. Thus, both depressed and low self-esteem individuals made internal attributions for failure, as well as success. High self-esteem and nondepressed individuals seemed to differentially attribute success more to internal factors and failure more to external factors. Tennen and Herzberger (1987) hypothesized that "to the extent that self-serving attributional biases reflect the need to maintain one's current level of self-esteem, individuals lower in self-esteem would be more attributionally evenhanded because their low level of self-esteem does not require self-serving attributions" (p. 73).

Kazdin et al. (1983) evaluated if hopelessness discriminated between suicidal and nonsuicidal children hospitalized on a psychiatric intensive care service and if hopelessness, depression, and suicidal intent were inter-related among children in the way they have been among adults. The researchers developed and administered a hopelessness scale, modeled after an adult version, along with measures of depression and self-esteem. Results indicated that hopelessness was negatively correlated with self-esteem and high-hopelessness children showed significantly greater depression and lower self-esteem than low-hopelessness than the nonsuicidal group and scored higher on the depression and lower on the self-esteem measures. Suicidal intent was more clearly related to the degree of hopelessness than to the severity of depression. The authors concluded that the correlation pattern of hopelessness, depression, and self-esteem was predicted on the cognitive triad of depression that includes negative attributions and expectations toward self, others, and the future.

Feilstein et al. (1985) assessed I00 low self-esteem and 101 high self-esteem children from grades 4 through 6, in order to determine if high self-esteem children were less likely than low self-esteem children to attribute failure to a general lack of ability. This is also known as the consistency hypothesis, put forth by Jones (1973). The consistency hypothesis posits that "if children with low self-esteem are, indeed, more cognitively predisposed to dismiss the personal relevance of success, while at the same time they are more likely to blame their failures on personal inadequacies, they are trapped in a vicious self-fulfilling cycle" (Feilstein, et al., p. 382).

Subjects were given the Piers-Harris Self-Concept Scale in order to examine social, athletic, and academic success or failure and an attribution questionnaire which contained four commonly used categories (i.e., ability, luck, effort, and task difficulty). Results indicated that high self-esteem children attributed their success to ability and their failure to unstable factors (i.e., either lack of effort or bad luck). Conversely, the low self-esteem children attributed their success to unstable factors, such as good luck, and in the social domain to effort and task ease, while their failures were attributed to the internal and more stable category of lack of ability. The authors concluded that their results support the consistency model and do not support the notion that high self-esteem children differ in their attributional response to success, but not to failure. They do agree, however, that in success situations, low self-esteem children's pattern of emphasizing effort more than skill may interfere with self-esteem enhancement. These findings are consistent with previous studies examining attributional style in depressed children (e.g., Seligman, et al., 1984).

Summary of the Literature

The present review of the literature pertaining to adolescent and children life events indicates that adolescent life events research has differed from those utilizing samples of children below the age of 12 years in terms of both quantity and quality. The literature pertaining to adolescent life events indicates that the adolescent studies were much more inclusive, examining the effects of both positive and negative life events, examining the actual types of events as well as the frequencies, utilizing samples from the general populations, and comparing clinical with nonclinical groups with respect to types of and frequencies of life events. Of all the studies presented, only seven, pertain to children 12 years or younger (e.g., Bailey, & Garralda, 1987; Cohen-Sandler, Berman, & King; 1982; Cowen, Lotyczewski, & Weissberg, 1984; Kashani, Hodges, Simonds, & Hiderbrand, 1981; Steinhausen, & Radke, 1986; Wertlieb, Weigel, & Feldstein, 1987; Wertlieb, Weigel, Springer, & Feldstein, 1987) and, when compared to those studies available which used adolescent samples, these studies can be criticized in several areas.

It has been suggested (e.g., Goodyer, Kolvin, & Gatzanis, 1985a) that the reporting of life events and the evaluation of them by the children and adolescents themselves may result in a more valid assessment, whereas all the childhood life event studies discussed in this literature review relied upon parental reporting of the child's life events and the distinction between negative and positive life events (if it was made) was determined by the researchers. With respect to the actual examination of life events, only two of the childhood life events studies (e.g., Wertlieb, Weigel, & Feldstein, 1987; Wertlieb, Weigel, Springer, & Feldstein, 1987) examined positive life events, whereas the remaining studies examined negative life events and/or total life events (e.g., Bailey, & Garralda, 1987; Cohen-Sandler, Berman, & King, 1982; Cowen, Lotyczewski, & Weissberg, 1984; Kashani, Hodges, Simonds, & Hilderbrand, 1981;Steinhausen, & Radke, 1986). When positive life events were incorporated into the studies, researchers examined the relationships between positive life events and various behavior symptomatology but the types of positive life events reported by this age group were relatively ignored. Furthermore, the majority of these studies compared the number of life events experienced between clinical and control groups (e.g., Bailey, & Garralda; Kashani, Hodges, Simonds, & Hilderbrand; Steinhausen, & Radke; Wertlieb, Weigel, & Feldstein; Wertlieb, Weigel, Springer, & Feldstein) and/or examined the associations between life events and behavioral/distress outcomes (e.g., Cowen, Lotyczewski, & Weissberg; Wertlieb, Weigel, & Feldstein; Wertlieb, Weigel, Springer, Feldstein), whereas the actual types of negative life events

experienced by this age group has not been thoroughly examined. The one study which examined the types of life events reported by the parents of the subjects did so for comparison purposes only (i.e., the types of events reported by the parents of the control subjects were compared to those reported by the parents of the clinical subjects).

The need to address cognitive variables (such as attributional style, locus of control, temperament, and/or coping skills) which may be affecting the associations found between negative life events and symptomatology has been expressed by several researchers (Felner, Ginter, Boike, & Cowen, 1981; Garrisen et al., 1987; Goodyer, Kolvin, & Gatzanis, 1985a, 1987; Steinhausen, & Radke, 1986). Only one of the studies pertaining to children below the ages of 12 years addressed this need. Wertlieb, Weigel, Springer and Feldstein (1987) examined temperament in conjunction with the life events experienced by their sample of 6 - 9 year old children. To date, there appears to be no studies available which examine attributional style in conjunction with life events and subsequent symptomatology, particularly with pre-adolescent children (Hammen, Adrian, & Hiroto, 1988). Hammen et al., found that a negative attributional style (i.e., learned helplessness) in conjunction with an increased number of life events was a significant predictor of non-depressive disorders in children aged 8 - 16 years at risk for depression. This study, however, incorporated both adolescent and preadolescent children in its sample and consequently, the results cannot be generalized to a preadolescent population.

With respect to the association between life events and self-esteem, Hammen (1988) found that both stress and lowered self-concept were significant predictors of depression in children of depressed mothers which appeared to work additively rather than interactively. Simmons, Burgeson, Carlton-Ford, and Blyth (1987) found in their study of the impact of cumulative change in early adolescence that for females self-esteem was inversely related to number of life changes experienced (i.e., the greater the number of stressful life changes exposed to the lower the self-esteem). Conversely, Kashani, Hodges, Simonds, and Hilderbrand (1981) suggest that because the most frequent life event experienced by their normal population was receiving an outstanding achievement award, this may have a positive effect on self-worth. This type of life-event was ten time less prevalent in the psychiatric group and, consequently, may have an adverse effect on the self-esteem of these individuals.

At present, there does not appear to be any studies which examine the association between life events, attributional style, self-esteem, and teacher reported behavior exhibited by children aged 9 through 11. Further, there are few reported life events studies which investigate gender differences for this age group. The findings from those which have been performed are contradictory, with some studies establishing a sex difference (e.g., Simmons, Burgeson, Carlton-Ford, & Blythe, 1987) and others not (Goodyer, Kolvin, & Gatzanis, 1986; Newcomb, Huba, & Bentler, 1986). Of these three studies only one, that of Goodyer et al., incorporated both pre-adolescents and adolescents

in their sample, while the other two (Newcomb et al.; Simmons et al.) focused entirely on adolescents.

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CHAPTER THREE METHODOLOGY

<u>Sample</u>

The participants in this study were 70 English speaking boys and girls, ages 9 years 0 months through 11 years 6 months, attending elementary schools in the Rocky View School Division No. 41 and the Foothills School Division No. 38. The sample was taken from these two school divisions as approval for the study to be conducted was granted by the respective school boards. Regular classroom teachers were asked to refer students who met the following criteria: 1) ages 9 to 11.5 years, 2) attending regular classes for all academic subjects, 3) no previously diagnosed learning difficulties, and 4) no behavioral and/or emotional disorders diagnosed by a mental health professional. Students who met the above criteria were selected by the classroom teachers and parental consent letters were sent home with them. Once parental consent was received 3 students from each classroom were randomly selected from the entire classroom subject pool due to the length of time required by the teachers to complete the child behavior checklist questionairre. Seventy subjects in total participated and the sample was divided in two groups based on gender (32 males and 38 females).

Psychological Measures

<u>Life Event Scale for Children</u> (<u>LES-C</u>) (Coddington, 1972a, 1972b) - The LES-C was developed by Coddington in order to investigate the significance of life events as etiological factors in the diseases of children. The scale, in its original form, was an adaptation of the Holmes and Rahe Social Readjustment Rating Scale (1967) which was designed for an adult population. Events from this scale were revised to fit children of various ages ranging from preschool to high-school. Two hundred and forty-three professionals were then surveyed in order to gain the data needed to assign a weight, known as the Life Change Unit (L.C.U.), to each event (Coddington, 1972a). This L.C.U. was derived from the amount of readjustment each event would require from the individual. The scale has since been modified to meet the events facing young people in today's society (Coddington, 1984).

The scale contains 35 items pertaining to events which could occur in the life of a child between the ages of six through eleven (e.g., death of a parent, birth of a sibling, receiving an achievement award, hospitalization). Each of these items is considered only if it has occurred in the previous 12 months. Each item is then given an L.C.U., which is dependent upon when it occurred (e.g., three months ago, six months ago, 9 months ago, or 12 months ago). Simply totalling these L.C.U.'s gives the L.C.U. score for each individual which can then be compared to a normed average for that age group. This average is considered to be the approximate upper limit score for 75% of the population. Scores greater than this average would tend to indicate a two to threefold increase in the risk of behavioral symptomatology. An L.C.U. score can also be totalled and compared for each three month interval in the past year. This scale has been shown to have good test-retest reliability with subjects as young as 10 years (Coddington, 1984). Further, it seems that for 85% of the items on the

LES-C, parents and children agree 90% of the time if queried separately, and the average agreement between parents and children for this scale is 95% (Coddington, 1984).

Children's Attributional Style Questionnaire (CASQ) (Appendix A, Seligman et al., 1984) - The CASQ is based on the reformulated theory of learned helplessness which proposes that attributional styles can be indicative of later symptomatology. Particularly, individuals who possess attributional styles which lead them to view bad events as stable in time, global in effect, and internal to themselves will be at risk for the behavioral and emotional deficits associated with helplessness (i.e., depressive symptoms) (Nolen-Hoeksema, Girgus, & Seligman, 1986).

The questionnaire contains 48 items, each pertaining to a hypothetical bad or good event involving the child. The child must then choose a cause for the event from the two possible choices given. The causes for each event hold two of the attributional style dimensions constant while varying the third. For example: You tell a joke and no one laughs, with the choices being (a) I do not tell jokes well (internal), or (b) the joke is so well known that it is no longer funny (external). This item measures the internal/external dimensions while holding constant the global/specific and stable/unstable dimensions. Of the total items, 8 pertain to good events and 8 pertain to bad for each scale which results in a total of six subscales with a good and a bad event scale for each of the three dimensions.

The scores are obtained by assigning a 1 to each internal, stable, or

global response and a 0 to each external, unstable, or specific response, depending upon which dimension is varied. The scores for each dimension are then totalled separately for good events and bad events from the appropriate questions which result in the subscale totals. A composite attributional style score for positive events (CP) is calculated by totalling all the positive subscales. Similarly, a composite attributional style for negative events (CN) is calculated by totalling all the negative subscales. An overall attributional style score (CPCN) is then obtained by subtracting the composite negative score from the composite positive score. The lower the CPCN, the more inclined the child is to attribute bad events to internal, stable, global causes, while attributing good events to external, unstable, specific causes.

Seligman et al. (1984) report the alpha coefficients for the CP, CN, and CPCN scales as .71, .66, and .73., respectively, and a test-retest reliabity of the CASQ as .71 over a 6 month period.

<u>Coopersmith Self Esteem Inventory</u> - <u>School Form</u> (SEI) (Coopersmith, 1967) - The SEI is a brief self-report questionnaire which measures an individual's overall level of self esteem according to the notion that a "general enduring personal judgement of worthiness [is] expressed in the attitudes the individual holds towards himself" (Coopersmith, 1967, p. 10). It was designed to be used with elementary school age children to adults. The school form measures a child's perception of him/herself in four areas: school, peers, parents, and self.

The questionnaire itself contains 58 items, each requiring a "Like Me" or

"Unlike Me" response. Eight of these items are designed to be indicators of a defensive or test-wiseness response and make up a lie scale. The remaining 50 items are divided to measure each of the four domains previously mentioned. Consequently, there are five subscales (i.e., Lie, General Self-Concept, School Curriculum, Home/Parent, Social/Peer) and no item overlap across the scales. Each favourable response is given 4 points, thus making a total of 100 possible points when all scales (excluding the lie scale) are combined. Thus, the individual's self-esteem is the accumulation of these scores, with high scores being indicative of positive self-esteem.

Statistics pertaining to the split-half and test re-test reliabilities are reported to be significant. Coopersmith (1967) reported a split-half reliability coefficient of .85 and test re-test coefficients in the high .80s. Taylor and Reitz (1968) found a .90 split-half reliability coefficient and test-retest coefficients of .88 over a 5 week period and .70 over a three year period. More recently, Chui (1985) reports test-retest coefficients ranging from .72 to .85 when measuring students from grades four through seven. Robinson and Shaver (1973) report sufficient convergent, discriminant, and predictive validity for the SEI. Further, Roberson and Miller (1986) found that the School-Curriculum, Home/Parent, Social/Peer, and Lie subscales (which are closely related empirically) appear to measure distinguishable features of self-concept and are substantially valid.

<u>The Child Behavior Checklist</u> - <u>Teacher Report Form</u> (<u>CBCL-TRF</u>) (Achenbach, & Edelbrock, 1983) - The Teacher Report Form of the CBCL is a standardized version of the original CBCL. It is a four page questionnaire designed to assess a child's problem behaviors, school performance, and adaptive functioning as reported by the teachers. It also gathers demographic information such as age, sex, race, grade in school, and parental occupations.

Two profiles are gleaned from the CBCL-TRF, one pertaining to the child's adaptive funtioning, the other to behavior problems. Within each profile there are a number of subscales. The adaptive functioning profile yields information regarding the child's school performance, as well as general functioning within the classroom setting. The former is based upon a 5 point scale ranging from "far below grade" to "far above grade". The teachers are required to evaluate each academic subject in this manner on the questionnaire. The general functioning within the classroom setting is divided into 4 categories: Working Hard, Behaving Appropriately, Learning, and Happy. This information is gleaned from the following: "Compared to typical pupils of the same age; 1. How hard is he/she working? 2. How appropriately is he/she behaving? 3. How much is he/she learning? 4. How happy is he/she?". The teacher rates each of these on a 7 point scale ranging from "much less" to "much more". These four scales are then totalled to obtain a general functioning score which ranges between 4 and 48. All the scores are plotted on the Adaptive Functioning Profile containing normative data (Achenbach, & Edelbrock, 1983).

The Behavior Problem Profile is obtained from II8 items on the questionnaire pertaining to the child's behavior as reported by the teacher (e.g., Argues a lot, Gets in many fights, Talks out of turn). Each of these items are

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rated on a scale of 0 (not true), 1 (somewhat or sometimes true), or 2 (very or often true). The teacher is asked to base his/her findings on what he/she has observed within the last 2 months. These scores are then totalled according to their appropriate classification (i.e., which scale they pertain to) and plotted on the Behavior Problem Profile containing normative data (Achenbach, & Edelbrock, 1983).

Profiles are differentiated by sex and by age. There are separate profiles for boys and girls corresponding to two age groups, 6-II and 12-16. This is a result of factor analytic findings which revealed different dimensions of pathology for each age group (Achenbach, & Edelbrock, 1981). Using the same method eight behavior problem scales have been identified for boys ages 6-II: Anxious, Social Withdrawal, Unpopular, Self-Destructive, Obsessive-Compulsive, Inattentive, Nervous-Overactive, and Aggressive (Edelbrock, & Achenbach, 1984). The Behavior Problem Scales for girls ages 6-11 are the same with the exception of Obsessive-Compulsive and the inclusion of Depressed (Achenbach, & Edelbrock, 1983). Second order factor analysis revealed that these scales could be further divided into two broad band groupings (i.e., internalizing and externalizing), with the first two scales for each age group comprising the Internalizing factor and the latter 3 from both comprising the Externalizing factor. The scales for Depressed (for girls), Obsessive-Compulsive (for boys), Unpopular, and Self-Destructive did not enter into the equation.

In order to standardize the CBCL-TRF, normative data was collected from

1,100 non-clinical children, and test re-test reliability and stability of the TRF was found to be satisfactory (Achenbach, & Edelbroch, 1983). The behavior problem scales have been reported to show good stability over 2-4 month intervals with average test re-test correlations of .77 and .64, respectively (Achenbach, & Edlelbroch, 1983). Pearson product-moment correlation coefficients (r) for one week test re-test reliability with regards to school performance, adaptive functioning, and behavior problem scales are reported as .93, .86, and .89, respectively.

Procedure

Once appropriate subjects were selected by each classroom teacher, consent letters were sent to the parents (Appendix B). Twenty-six classrooms participated in the study. As previously mentioned, due to the length of time required for the teachers to complete the CBCL-TRF (i.e., approximately 10 - 20 minutes) only 3 subjects, from those potential subjects who had obtained parental consent, were randomly chosen from each classroom. Letters of consent were also filled out by the principal (Appendix C) and the teachers (Appendix D) of the respective schools.

Once subjects were selected and parental permission was granted for a prospective subject to participate in the study, each subject's regular classroom teacher was asked to complete the CBCL-TRF and return them to the researcher. Before testing began the researcher explained the procedure of the study to the group of subjects being assessed, and they were given the opportunity to withdraw from the study which two boys chose to do. Subjects

were removed from the classroom for approximately one hour to complete the questionnaires in the presence of the researcher. Each inventory was administered separately with the instructions being read aloud by the researcher. The subjects silently read their copies and then marked their responses on the scoring sheets. Life event reporting was obtained by the subjects instead of the parents because of the apparent lack of studies which have obtained the life events in this manner (i.e., the majority of studies which used this age group of subjects have relied upon parental reporting) and due to Coddington's (1984) finding that parental and subject reporting concur 90 -95% of the time. If a subject reported experiencing a certain life event the examiner would assist them in recalling it through the use of queries such as what time of year did it occur, was it close to Christmas or Easter, what grade were you in, etc. Conceptualizing the life events in this manner appeared to eliminate the inclusion of events which occurred prior to the 12 months before testing and seemed to enable the subjects to recall the life events with greater accuracy. After marking their responses on the LES-C, the subjects were also asked to describe the life events in terms of the positive or negative feeling it had caused in them. This was done by using a "+" for positive events and a "-" for negative events. Apart from the granting of consent, no parental involvement was required. Both the parents and the subjects were informed that the subject's anonymity was guaranteed and the results would be used solely for research purposes. No follow-up participation was solicited.

Scores were then tabulated for all questionnaires and put into two

groups based on gender for data analyses. Frequencies for both positive and negative life events were tallied separately, rather than scoring the LES-C by the Life Change Unit Score. This was done in order to obtain a separate score for positive and negative life events and has been found in previous studies to be an accurate way of assessing life events (i.e., Bailey, & Garralda, 1987; Newcomb, Huba, & Bentler, 1981; Swearingen, & Cohen, 1985). Additionally, Davis and Compas (1986) suggest that the degree to which an event taxes or exceeds one's coping resurce (i.e., that is perceived as stressful) is reflected, to a great extent, in appraisals of desirability.

Data Analyses

Descriptive statistics (i.e., means and standard deviations) were performed on the sociodemographic variables of age and grade level and on each of the psychological variables (i.e., life events, attributional style, selfesteem, behavior problem scales, and adaptive functioning) for the two experimental groups and the entire sample. Additional descriptive statistics (i.e., mode, range of values, skewness, and kurtosis) were calculated for the entire sample. Hotelling's T's were computed in order to examine the differences between means for the males and females with respect to the reporting of each of the psychological variables. The types of, frequency of, and positive or negative rating of each of the life events reported by each gender were also examined. Lastly, Pearson product-moment correlations were computed for age, grade level and the psychological variables.

CHAPTER FOUR

RESULTS

Sociodemographic Variables

Subjects were solicited (see consent letter in Appendix B for details) from both urban and rural schools in the Rocky View and Foothills School Divisions (i.e., Crossfield, Airdrie, Springbank, Conrich, Blackie, Okotoks) and represent a cross section of socioeconomic levels. Of approximately 700 potential subjects parental consent was obtained for 70 which represented 10% of the total solicited sample. The sample consisted of 32 males and 38 females, aged 9.0 to 11.5 years from grades 3 through 6. All of the students attended regular classrooms for all academic subjects.

Descriptive statistics were completed with respect to the sociodemographic variables of age and grade level for the two experimental groups (i.e., males and females) and the entire sample. Mean ages were 9.67 years for the males, 9.61 years for the females, and 9.64 years for the entire sample. Mean grade levels were 4.34 for the males, 4.47 for the females, and 4.41 for the entire sample. Table 1 contains the means and standard deviations with respect to age and grade level for the males, females, and entire sample.

Psychological Variables

A summary of the means and standard deviations with respect to student reported psychological variables for the males, females, and entire sample is presented in Table 2. The mode, range of values, skewness, and kurtosis associated with each student reported variable for the entire sample are Table 1

Group	A	qe	Grade	
······································	M	SD	М	SD
Males	9.69	0.69	4.34	0.65
Females	9.61	0.55	4.47	0.65
Entire Sample	9.64	0.62	4.41	0.65

Means and Standard Deviations for Age and Grade

Table 2

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Means and Standard Deviations for Student Reported Psychological Variables

* Variables	Males		Fe	Females		Entire Sample	
	м	SD	M	SD	М	ŞD	
NLE	2,50	1.97	2.74	2.39	2.63	2.20	
PLE	2.56	1.90	3.68	2.34	3.17	2.21	
TLE	5.06	3.03	6.42	3.99	5.80	3.62	
CASQPI	4.59	1.32	4.97	1.10	4.80	1.21	
CASQPS	3.75	1.61	4.55	1.47	4.19	1.51	
CASQPG	3.75	1.76	4.45	1.41	4.13	1.61	
CASQNI	2.53	1.78	2,13	1.53	2.31	1.65	
CASQNS	3.09	1.57	1.95	1.27	2.47	1.52	
CASQNG	3.25	1.44	2.08	1.05	2.16	1.24	
CASQCP	12.28	2.91	13.97	2.76	13.20	2.93	
CASQCN	8.34	3.55	6.16	?4 8	7.16	3.19	
CASQTCS	4.25	4.81	7.82	3.10	6.19	4.33	
GSEI	18.00	4.36	17.95	4.47	17.97	4.39	
SSEI	5.91	1.55	6.13	1.55	6.03	1.54	
HSEI	5.00	1.97	5.76	1.65	5.41	1.83	
ASEI	5.22	1.43	5.53	1.81	5.39	1.64	
LSEI	2.81	1.98	2.84	1.62	2.83	1.78	
TSEI	69.19	15.44	70.58	14.86	69.94	15.03	

* Key on next page

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Table 2 (Continued) Key

NLE	Negative Life Events
PLE	Positive Life Events
TLE	Total Life Events
CASQPI	Internality dimension of the CASQ for positive events
CASQPS	Stability dimension of the CASQ for positive events
CASQPG	Globality dimension of the CASQ for positive events
CASQNI	Internality dimension of the CASQ for negative events
CASQNS	Stability dimension of the CASQ for negative events
CASQNG	Globality dimension of the CASQ for negative events
CASQCP	Composite Score of the CASQ for positive events
CASQCN	Composite Score of the CASQ for negative events
CASQTCS	Total Composite Score of the CASQ
GSEI	Self-Esteem Inventory General Score
SSEI	Self-Esteem Inventory Social Score
HSEI	Self-Esteem Inventory Home Score
ASEI	Self-Esteem Inventory Academic Score
LSEI	Self-Esteem Inventory Lie Score
TSEI	Self-Esteem Inventory Total Score

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presented in Table 3.

The life events variables (i.e., negative, positive, total) for the entire sample are positively skewed, indicating that the long end of the tail of the distribution extended toward the high end of the scores. The kurtosis associated with each of the life events variables are greater than 0, indicating that these variables seem to have a leptokurtic distribution (i.e., more peaked than the normal distribution).

With the exception of the globality scale for positive events, the composite score for positive events, and the overall composite scores, all of the attributional style variables for the entire sample obtained positively skewed distributions, indicating that, similar to the life event variables, the long end of the tail of the distribution extended toward the high end of the scores. Conversely, the globality scale for positive events, the composite score for positive events, and the overall composite score obtained negatively skewed distributions, indicating that the long end of the tail of the distribution extended toward the high end scores. Conversely, the globality scale for positive events, the composite score for positive events, and the overall composite score obtained negatively skewed distributions, indicating that the long end of the tail of the distribution extended toward the low end of the scores. The kurtosis associated with each of the attributional style variables, excluding composite score for negative events and total composite score, were negative, indicating that the distribution curves were platykurtic (i.e., flatter on top than the normal distribution). The distributions associated with both the composite score for negative events and total composite score were leptokurtic - more peaked than a normal distribution.

With the exception of the lie scale, the skewness associated with each of the self-esteem variables for the entire sample was negative, indicating that the

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Table 3

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Mode, Range of Values, Skewness, and Kurtosis for Student Reported Psychological Variables for the Entire Sample

* Variables	Mode	Range of Values	Skewness	Kurtosis
NLE PLE TLE CASQPI CASQPS CASQNG CASQNS CASQNS CASQNG CASQCP CASQCP CASQCN CASQTCS GSEI SSEI	1 3 5 5 4 4 2 2 2 14 5 8 19 6	$0 - 11 \\ 0 - 9 \\ 0 - 19 \\ 3 - 8 \\ 0 - 8 \\ 0 - 8 \\ 0 - 6 \\ 0 - 6 \\ 0 - 6 \\ 0 - 5 \\ 7 - 19 \\ 2 - 18 \\ 6 - 14 \\ 6 - 25 \\ 2 - 8 \\ 0 - 19 \\ 0 - 8 \\ 0 - 8 \\ 0 - 8 \\ 0 - 8 \\ 0 - 8 \\ 0 - 8 \\ 0 - 19 \\ 0 - 19 \\ 0 - 19 \\ 0 - 10 \\ 0 -$	$ \begin{array}{r} 1.35\\ 0.68\\ 0.93\\ 0.30\\ 0.17\\ -0.11\\ 0.34\\ 0.25\\ 0.12\\ -0.05\\ 0.75\\ -0.56\\ -0.86\\ -0.73\\ \end{array} $	2.23 0.08 1.48 -0.40 -0.16 -0.17 -0.63 -0.63 -0.70 -0.70 0.96 0.11 0.44 0.27
HSEI ASEI LSEI TSEI	5 6 4 64	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	-0.42 -0.49 0.32 -0.40	-0.61 -0.11 0.12 -0.42

* See Table 2 for Variable Key

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long end of the tail extended toward the low end of the scores. The kurtosis associated with the general self-esteem scale, social self-esteem scale, and the lie scale were more peaked than that of a normal distribution, while the kurtosis associated with the home, academic, and total self-esteem scales were flatter than of a normal distribution.

A summary of the means and standard deviations with respect to the teacher reported variables for the males, females, and entire sample is presented in Table 4. The mode, range of values, skewness, and kurtosis associated with each of the teacher reported variables for the entire sample are presented in Table 5.

All the behavior problem scales (e.g., anxious, unpopular, inattentive, nervous-overactive, internalizing, externalizing, total behavior problem score) were positively skewed with the longer end of the distributions extended toward the higher scores. The kurtosis associated with the internalizing, externalizing, and total behavior problem score scales were flatter than a normal distribution. The kurtosis for each of the remaining behavior problem scales indicated that these distributions were more peaked than that of a normal distribution, particularly unpopular, self-destructive, nervous-overactive, and aggressive.

The skewness associated with each of the teacher reported adaptive functioning scales indicated that only one of these variables (i.e., working hard) obtained a normal distribution. Additionally, the kurtosis associated with the working hard scale was 0.04, indicating that it is only slightly more peaked than a normal distribution. This finding may be explained by the selective sampling Table 4

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Means and Standard Deviations for Teacher Reported Psychological Variables

* Variables	Males		Fe	males	Entire	Entire Sample	
· · · · · · · · · · · · · · · · · · ·	M	SD	M	SD	М	SD	
CBCLI	57.09	3.63	56.87	3.02	56,97	3,29	
CBCLII	59.44	6.88	58.11	4.97	58.71	5.92	
CBCLIII	59.03	6.71	58.58	3.54	58.79	5.20	
CBCLIV	57.22	4.71	58.55	2.00	57.94	3.54	
* CBCLV	58.16	4.18		-	-		
**CBCLV	-	-	57.50	4.13	-	-	
CBCLVI	58.19	4.67	56.05	2.54	57.03	3.80	
CBCLVII	58.69	6.47	56.08	2.17	57.27	4.80	
CBCLVIII	56.84	3.87	56.21	2.52	56.50	3.20	
CBCLINT	53.09	9.04	51.40	8.33	52.17	8.64	
CBCLEXT	51.28	9.18	49.63	6.54	50.37	7.84	
CBCLSUM	51.53	10.67	48.53	8.19	49.90	9.46	
CBCLSP	49.31	9.06	53.71	8.88	51.70	9.17	
CBCLWH	47.16	10.64	54.16	10.48	50.96	11.05	
CBCLBA	51.09	9.29	53.66	9.65	52.49	9.51	
CBCLLE	47.22	9.51	53.97	8.65	50.89	9.60	
CBCLHA	50.06	8.25	52.47	10.22	51.37	9.38	
CBCLTAF	44.25	8.67	50.24	9.06	47.50	9.32	

* Key on next page

** Obsessive-Compulsive Variable applies to males only

*** Depressed Variable applies to females only

Table 4 (Continued) Key

	CBCLI	Anxious Scale on the CBCL
	CBCLII	Social Withdrawal Scale on the CBCL
	CBCLIII	Unpopular Scale on the CBCL
	CBCLIV	Self Destructive Scale on the CBCL
*	CBCLV	Obsessive-Compulsive Scale on the CBCL
**	CBCLV	Depressed Scale on the CBCL
	CBCLVI	Inattentive Scale on the CBCL
	CBCLVII	Nervous-Overactive Scale on the CBCL
	CBCLVIII	Aggressive Scale on the CBCL
	CBCLINT	Internalizing Scale on the CBCL
	CBCLEXT	Externalizing Scale on the CBCL
	CBCLSUM	Total Behavior Problem Score on the CBCL
	CBCLSP	School Performance Scale on the CBCL
	CBCLWH	Working Hard Scale on the CBCL
	CBCLBA	Behaving Appropriately Scale on the CBCL
	CBCLLE	Learning Scale on the CBCL
	CBCLHA	Happy Scale on the CBCL
	CBCLTAF	Total Adaptive Functioning Score on the CBCL

- Obsessive-Compulsive Scale applies to males only *
- Depression Scale applies to females only **

Table 5

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Mode, Range of Values, Skewness, and Kurtosis for Teacher Reported Psychological Variables for the Entire Sample

Variables	Mode	Range of Values	Skewness	Kurtosis
CBCLI	55	55 - 67	1.45	0.82
CBCLII	55	55 - 77	1.63	1.68
CBCLIII	55	55 - 81	2.05	4.23
CBCLIV	57	55 - 72	2.03	3.41
CBCLVI	55	55 - 69	1.80	1.97
CBCLVII	55	55 - 82	2.91	10.25
CBCLVIII	55	54 - 71	2.46	6.33
CBCLINT	42	42 - 70	0.30	-1.23
CBCLEXT	43	39 - 70	0.49	-0.66
CBCLSUM	37	33 - 72	0.19	-0.75
CBCLSP	52	27 - 75	0.09	0.30
CBCLWH	52	30 - 75	0.00	0.04
CBCLBA	54	33 - 75	0.64	1.05
CBCLLE	50	29 - 75	0.19	1.65
CBCLHA	52	31 - 75	-0.15	0.67
CBCLTAF	48	31 - 75	0.59	0.97

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* See Table 4 for Variable Key

which was performed. The happy scale was negatively skewed, indicating that the longer end of the distribution extended toward the lower scores. The remaining adaptive functioning scales (e.g., school performance, learning, total adaptive functioning score) were positively skewed with the longer end of the distributions extended toward the higher scores. The kurtosis associated with each of the adaptive functioning scales, excluding working hard, were more peaked than a normal distribution.

Although the sample was not randomly gathered from the general population, Hotelling's T's were performed and used in an exploratory fashion as a measure of distance between the male and the female variables. Each student reported variable group (i.e., life events variables, self-esteem variables, and attributional style variables) was examined in this manner. The Hotelling's T scores associated with the student reported variables indicated that, for this sample, when positive and negative life events were examined multivariately no major gender differences were found. Univariate analysis, however, did indicate that the females in this sample reported more positive life events than the males with F (1, 68) = 4.73. Multivariate analysis of the attributional style scores, using Hotelling's T, indicated that females in this sample reported the causes of positive events as internal, stable, and global more so than the males while the males reported the causes of negative events as internal, stable, and global more so than the females (F [1, 68] = 4.99). No major gender differences were found for the student reported self-esteem variables using Hotelling's T.

The Hotelling's T's performed with the teacher reported variables indicated that, for this sample, the males exhibited more behavior problems than the females with F (1, 68) = 3.93. Complementary to this result, the Hotelling's T associated with the adaptive functioning scales indicated that, for this sample, the teachers reported that the females exhibited more adaptive functioning behaviors than the males with F (1, 68) = 2.82.

The types of life events experienced in the past year as reported by this sample and the negative or positive rating of each event are presented in Table 6. Positive and negative ratings were based on the subject's perception, consequently, some events which may normally be viewed as negative (e.g., death of a grandparent, parental hospitalization) were rated as positive. With respect to illness and loss events, 20% of the entire sample (i.e., 12 males and 2 females) reported experiencing the loss of a grandparent with 10 of the males and 1 female describing this event as negative and 2 males and 1 female describing this event as negative.

Four females and 1 male experienced the death of a close friend. Of these 5 subjects, 3 of the females and the 1 male rated this event as negative whereas 1 of the females rated this event as positive. Death of a pet was the loss life event reported most frequently by both the males and the females, with 57% of the entire sample (i.e., 24 females and 16 males) indicating that they had experienced this event. Of the subjects who reported this event all but 1 female rated it as negative. Parental hospitalization was experienced by 3 males and 10 females with 1 of the males and 3 of the females rating this event Table 6

Student Reported Life Events for Males (M) and Females (F) and their Respective Positive or Negative Ratings

Type of Life Event	Posi	tive	Nega	Negative		
	М	F	м	F		
Death of grandparent	2	1	10	1		
Death of aunt	ō	ò	0	1		
Death of uncle	õ	õ	1	2		
Death of close friend	õ	1	1	3		
Death of pet	Ō	1	16	23		
Parental hospitalization	1	3	2	7		
Personal hospitalization	1	1	4	6		
Sibling hospitalization	0	2	4	8		
Parental divorce	0	0	0	1 ·		
Parental separation	0	0	0	1		
Start of problem between parents	0	0	5	5		
End of problem between parents	1	2	0	Ο.		
Start of problem between you & parents	· 0	0	4	3		
End of problem between you & parents	2	2	0	0		
Loss of job by father or mother	3	3	0	4		
Major decrease in family income	0	1	3	2		
Major increase in family income	7	12	1	0.		
Change in father's job so he has less						
time at home	0	2	2	4		
Mother begins work outside home	5	5	1	0		
Birth of sibling	3	1	0	0		
New adult moving into home	0	6	2	0		
Remarriage of parent to stepparent	1	1	0	0		
Finding adult who respects you	12	16	0	0		
Moved to new school	1	7	0	4		
Joining social organization	8	6	2	0		
Failing to achieve something desired	1	2	× 5	11		
Recognition for excellence in activities	20	33	0	1		
Outstanding achievement award	14	18	0	0		

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as positive. Sibling hospitalization was experienced by 10 females and 4 males and was rated as negative by all but 2 females. Parental divorce or separation was experienced by 2 females and was rated as negative.

With respect to events which could be described as causing varying degrees of family disruption, loss of a job by father or mother was reported by 3 males and 7 females and was rated as positive by all of the 3 males and by 3 of the 7 females. Major decrease in the family income was experienced by 3 males and 3 females and was rated as negative by all of these subjects with the exclusion of 1 female. Major increase in the family income was the most frequently reported event related to family disruption, with 29% of the entire sample (i.e., 8 males and 12 females) reporting to have experienced it and was rated as negative by all but 1 male. Change in the father's job so he has less time at home was reported by 2 males, both of whom rated it as negative and by 6 females, of which 4 rated it as negative and 2 rated it as positive. Mother beginning to work outside the home was reported by 6 males, 5 of which rated it as positive and 1 who rated it as negative and by 5 females all of whom rated it as positive. Birth of a sibling was rated as positive by the 3 males and 1 female who reported it. New adult moving into the home was rated as positive by the 6 females who reported it and as negative by the 2 males who reported it. The remarriage of a parent to a stepparent was rated as positive by the 1 male and 1 female who reported to have experienced it.

With respect to the remaining life events reported by this sample, 12 males and 16 females (i.e., 40% of the entire sample) reported experiencing the

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event of finding an adult who respects you and rated this event as positive. Moving to a new school was rated as positive by the 1 male who experienced this event and by 7 of the 11 females, whereas 4 females rated the event as negative. Being invited to join a social organization was rated as positive by 8 of the 10 males and by all of the 6 females who reported it. Failing to achieve something the subject really wanted was rated as negative by all but 1 of the 6 males and by all but 2 of the 13 females who reported it. Recognition for excellence in sports or other activity was the most frequently reported life event (i.e., 77% of the entire sample reported to have experienced this event), and it was rated as positive by the 20 males and all but 1 of the 34 females who reported it. The outstanding achievement award, another frequently reported life event (i.e., 46% of the entire sample), was rated as positive by the 14 males and 18 females who reported it.

Correlational Analysis

Table 7 contains the Pearson product-moment correlation coefficients associated with the males' life events, attributional style, self-esteem, behavior problem scales, and adaptive functioning scales. Correlational analysis of the males' self-esteem variables indicated that as age increased general and social self-esteem decreased, while academic and total self-esteem increased. Males' grade level correlations indicated that social self-esteem decreased as grade level increased, while the remaining variables (i.e., general, home, academic, and total) increased as the grade level rose.

Life events correlations with self-esteem for the males indicated that as

Table 7

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Pearson Product-Moment Correlations for Males for Age, Grade, and Psychological Variables

Variables	Age	Grade	NLE	PLE	TLE	CASQCP	CASQCN	CASQTCS
GSET	-0.20	0.05	-0.29	-0.28	-0.36	0.32	-0.55	0.46
SSEI	-0.15	-0.13	-0.06	-0.08	-0.09	0.16	-0.30	0.28
HSEI	0.00	0.15	-0.22	-0.14	-0.23	0.38	-0.28	0.34
ASEI	0.14	0.16	-0.34	0.11	-0.15	0.16	-0.35	0.30
TSEI	0.01	0.04	-0.18	-0.08	-0.17	0.38	-0.44	0.43
CBCLINT	-0.34	-0.28	0.20	0.12	-0.05	-0.04	0.16	-0.04
CBCLEXT	-0.19	-0.31	0.13	0.04	0.11	-0.29	0.29	-0.26
CBCLSUM	-0.25	-0.32	-0.01	-0.03	-0.02	-0.21	0.26	-0.19
CBCLTAF	-0.06	0.19	-0.01	0.20	0.11	0.16	-0.11	0.10

Note: For a key to these variables see Tables 2 and 4

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negative life events increased all the self esteem variables decreased. Similarly, as positive life events increased all the self-esteem variables, excluding academic self-esteem which was found to increase as positive life events increased, decreased.

The correlations between the attributional style variables and the self-esteem variables were as expected. As the scores indicating a tendency to explain positive events with internal, stable, and global causes increased so did each of the self-esteem variables, whereas a tendency to explain negative events in this manner was associated with decreased self-esteem scores for each of the self-esteem variables.

Correlations associated with the teacher reported behavior problem scales for males in this sample indicated that as age and grade increased the internalizing, externalizing, and total behavior problem score scales decreased. With respect to the correlations found between life events and the behavior problem scales, as the male reporting of negative life events increased so did the internalizing and externalizing behavior scales. Conversely, the total behavior problem score was disordinally correlated with negative life events. Correlations associated with the positive life events and the behavior scales were similar. The correlations associated with attributional style and the behavior problem scales indicated that as the males' tendency to report the causes of positive events as internal, stable, and global increased, the internalizing, externalizing, and total behavior problem score decreased, whereas an increase in the males' tendency to explain negative events in this manner (i.e., internal, stable, and global causes) was associated with increased internalizing, externalizing, and total behavior problem scores.

With respect to the teacher reported total adaptive functioning scale for males, as age increased total adaptive functioning scores decreased, whereas when grade level increased total adaptive functioning scores also increased. As negative life events increased this scale was found to decrease, but as positive and total life events increased the scores associated with this scale also increased. The attributional style scores associated with explaining positive events with internal, stable, and global causes was ordinally correlated with the total adaptive functioning scale scores, while the scores associated with explaining negative events in this manner (i.e., internal, stable, and global causes) were disordinally correlated with the total adaptive functioning scale.

The Pearson product-moment correlation coefficients for the females' life events, attributional style, self-esteem, behavior scales, and adaptive functioning scales are presented in Table 8. The correlations associated with the females' reported self-esteem variables indicated that, for this sample, as the females' ages increased, general, social, and total self-esteem decreased, while home self-esteem increased and academic self-esteem was not affected. As the females' grade levels increased, however, all the self-esteem variables increased. With respect to the reporting of life events for the females in this sample, as both the negative and positive life events increased all of the self-esteem variables decreased. Similar to the male findings, the correlations associated with self-esteem and attributional style indicated that a tendency to

Table 8

Pearson Product-Moment Correlations for Females for Age, Grade, and Psychological Variables

Variables	Age	Grade	NLE	PLE	TLE	CASQCP	CASQCN	CASQTCS
GSEI	-0.16	0.02	-0.08	-0.16	-0.14	0.23	-0.02	0.22
SSEI	-0.07	0.18	-0.14	-0.03	-0.10	0.13	-0.08	0.18
HSEI	0.01	0.29	-0.18	-0.14	-0.19	0.12	-0.10	0.19
ASEI	0.00	0.17	-0.13	-0.04	-0.10	0.18	-0.08	0.22
TSEI	-0.05	0.20	-0.19	-0.09	-0.17	0.21	-0.10	0.27
*CBCLV	0.14	-0.11	0.38	0.19	0.34	-0.11	0.23	0.09
CBCLINT	-0.04	-0.13	0.01	0.06	0.04	-0.03	0.29	-0.20
CBCLEXT	-0.03	-0.20	0.32	0.21	0.32	-0.07	0.09	-0.13
CBCLSUM	0.07	-0.14	0.21	0.17	^{°°} 0.22	-0.09	0.05	-0.04
CBCLTAF	-0.12	0.11	-0.20	0.21	0.00	0.07	-0.24	0.13

Note: For a key to these variables see Tables 2 and 4

* Depressed scale applies to females only

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explain positive events with internal, stable, and global causes was positively related to all self-esteem variables, while a tendency to explain negative events in this manner (i.e., internal, stable, and global causes) was negatively related to all self-esteem variables.

The correlations associated with the teacher reported behavior problems scales for the females in this sample indicated that as the females' age and grade level increased the internalizing and externalizing scales decreased, whereas the depressed and total behavior problem score increased as age increased but decreased as grade level increased. With respect to the female reported life events, as both the negative and positive life events increased so did the teacher reported depressed, internalizing, externalizing, and total behavior problem score scales. Again, similar to the males the correlations between the attributional style variables and the behavior problem scales revealed that as the tendency to explain negative events with internal, stable, and global causes increased the depressed, internalizing, externalizing and total behavior problem score scales decreased, while a tendency to explain positive events with internal, stable, and global causes was negatively related to these particular behavior problem scales.

The teacher reported total adaptive functioning score for the females in this sample indicated that as age increased the scores associated with this scale decreased, whereas when the female grade level in this sample increased so did the total teacher reported adaptive functioning. As the female reporting of negative life events increased the scores associated with total adaptive functioning decreased, but as the reporting of positive life events increased so did the total adaptive functioning scale scores. For the attributional style variables a disordinal correlation was found between total adaptive functioning and a tendency to explain negative events with internal, stable, and global causes, indicating that as the females' tendency to explain events in this manner increased their total adaptive functioning scores decreased. Conversely, a tendency to explain positive events with internal, stable, and global causes was positively related to total adaptive functioning for the females.

CHAPTER FIVE

The purpose of this study was to gather descriptive information regarding the following variables: 1) student reported positive and negative life events, 2) student reported attributional style, 3) student reported self-esteem, 4) teacher reported behavior problems, and 5) teacher reported adaptive functioning for a nonclinical sample of children aged 9.0 to 11.5 years. Gender differences with respect to all psychological variables were examined, along with the type, frequency, and students' perceptions (i.e., positive or negative) of life events. Correlational relationships amongst all sociodemographic and particular psychological variables were also explored. This chapter will discuss the statistical results generated from this study's sample and analyze their relationship to previous studies. Although these results are limited to the sample of teachers and students surveyed and may not be generalizable to other situations, the findings do seem to provide some basis for discussion and further investigation. Lastly, the limitations of this study and the recommendations for future research will be discussed.

Description of Sample

The mean number of total life events (i.e., 5.8) reported by this sample was similar to that found by Kashani et al. (1981) who reported a mean of 4.0 for total life events for their sample of children with a mean age of 9.4 years solicited from the general population. Therefore, overall the children surveyed in this study did not appear to report a larger amount of life events as compared

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to previous studies.

Correspondingly, the mean scores associated with the total composite score for positive events (CASQCP = 13.20) and negative events (CASQCP = 7.16) for the entire sample were similar to that found by Seligman et al. (1984) in their study measuring depression and attributional style in children aged 8 through 13 years from two Philadelphia elementary schools with predominantly white, middle class students. Seligman et al. reported mean scores of 13.49 for positive events (CASQCP) and 6.58 for negative events (CASQCN) which are comparative with this sample's mean scores.

With respect to self-esteem, the mean scores of total self-esteem obtained by this study's sample fell within the accepted range for relatively normal levels of self-esteem in that females reported a mean score of 70.58 (S.D. = 14.86) for total self-esteem, while the males reported a mean score of 69.19 (S.D. = 15.44). The distributions were negatively skewed, indicating that relatively high levels of self-esteem were frequently reported by this sample. These self-esteem scores concur with Coopersmith's (1986) results which suggest that the means for total self-esteem should range from 70 to 80 with an approximate standard deviation of 11 and should be negatively skewed in the direction of high self-esteem.

The means and standard deviations of the teacher reported behavior problem scales on the CBCL for this sample are similar to those reported by Achenbach and Edelbrock (1981) for other nonclinical samples, indicating that both the females and the males in this sample were relatively "symptom free". The distribution of these scores indicated that this sample reported relatively low levels of behavior symptomatology (i.e., positively skewed toward the lower scores).

With respect to the teacher reported adaptive functioning, the females in this sample reported average levels of these variables (e.g., school performance, behaving appropriately, happy) according to Achenbach and Edelbrock's (1981) nonclinical norms. The males obtained slightly lower scores for these variables (i.e., Achenbach and Edelbrock T score norms ranged from 53.2 to 55.1 with a total adaptive functioning score of 51.2, while the males in this sample received T score means ranging from 47.2 to 51.1 with a total adaptive functioning score of 44.3), but they did fall within the accepted range of normed scores and distributions.

Overall, the descriptive statistics discussed above suggest that this study's sample appeared to be relatively free of any of the behavior symptomatologies measured and reported relatively normal levels of life events, attributional style, self-esteem, and adaptive functioning.

<u>Gender Differences</u>

Hotelling's T's were performed in order to examine the difference between male and female reporting of the psychological variables. Because the sample used in the present study was not randomly selected from the general population, the Hotelling's T results are relevant only to this sample but can be compared to other studies.

With respect to the reporting of negative and positive life events for this

sample, females report more positive events than males with no major gender differences for negative and total life events. Similarly, Cohen, Burt, and Bjorck (1987) found, in their nonclinical sample of adolescents with a mean age of 12.69 years, that females reported significantly more positive events, while no gender differences were found for negative or total events. Newcomb, Huba, and Bentler (1981) also did not find any gender differences with respect to total, negative, or neutral life events in their sample of 1,1018 younger adolescents (i.e., ages approximately 12 - 15 years), but gender differences were revealed when particular types of events were examined. They found that females reported significantly more accident/illness and distress events, whereas the males reported more deviance events such as getting into trouble with the law, stealing something valuable, or getting into trouble at school.

The above findings are contradictory to that reported by Compas, Slavin, Wagner, and Vannatta (1986) who found in their study of nonclinical older adolescents that females reported significantly more negative and total life events than males. Previously, Burke and Weir (1978) found in their study of adolescents (ages 13 - 20; mean age of 16.3 years) that the females reported significantly more life stress (e.g., parental demands, concerns about peer acceptance, isolation, concerns about future goals) than males.

The above noted discrepancy in the results obtained by the present study and those of Compas et al. (1986) and Burke and Weir (1978) may be partially explained by the different age groups of the samples. The present study's mean age was 9.6 years so it was relatively a prepubescent sample whereas the studies cited examined adolescents with mean ages of 17.9 years for the Compas et al. sample and approximately 13 years for the Newcomb, Huba, and Bentler sample. Consequently, the adolescents in the latter two studies were at a disadvantage from the present study's sample in that they may have been experiencing both the physical and emotional changes which are common to the adolescent developmental period. Some examples of the emotional and physical changes experienced by adolescents described in Coddington's Life Event Schedules for junior and senior high school students are change in acceptance by peers, acquiring a visible deformity, beginning to date, breaking up with girlfriend or boyfriend.

Corresponding to the above notion of different age groups being studied, it may be that prior to adolescence females experience approximately the same amount of negative events and more positive events than males, but as they enter adolescence and begin the transition to adulthood these differences change in that they experience more negative and less positive events. Rutter (1986) suggests that girls experience more life stress than boys during adolescence. Some reasons for this change in the experiencing of events with age have been given by various researchers.

After examining the literature available with respect to gender differences and sex roles, Burke and Wier (1978) suggested that up until puberty both males and females are given more freedom to behave androgonously. They also posited that the early pubertal hormonal changes which occur for females are more stressful and are regarded as negative by both society and the

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individual, whereas those associated with males are seen as positive (e.g., weight gain in females is perceived as negative, whereas in males it is associated with muscle development and therefore perceived as positive).

With respect to the gender differences associated with attributional style, this study found that the females tended to view the causes of positive life events as internal (personal), stable over time, and global (universal) and view the causes of negative life events as external, unstable (intermittent), and specific more so than the males.

This difference between males' and females' attributional styles may be due in part to the higher reporting of positive life events by the females in this sample. Because the females reported more positive life events than the males, one might hypothesize that they were given more opportunities to internalize the causes of these events. One cannot assume, however, that increased positive events resulted in the acquisition of a positive attributional style for these females. It is also plausible that a positive attributional style predisposed the females to the interpreting the life events experienced as positive, or there may have been an unknown third variable present which affected both the experiencing of life events and the aquisition of attributional style for the females in this sample.

Although no studies examining gender differences with respect to attributional style could be found, Siddique and D'Arcy's (1984) study of adolescent stress and psychological well-being examined gender differences with respect to locus of control, a personality variable which pertains to mastery of the reinforcers in one's environment unlike attributional style which pertains to the control one perceives over both negative and positive environmental situations. They found in their older adolescent sample (i.e., aged 13 - 18) that females exhibited significantly greater externality of control than males. This finding indicated that the adolescent females in their sample perceived events in their environments as occurring outside of their control more so than their male counterparts, whereas the females in the present study perceived more control over positive events than the males.

Again, this discrepancy in results may be explained in terms of the differing expectations placed on females by society when they reach adolescence. Siddique and D'Arcy (1984) concluded that "during childhood, boys and girls are equally encouraged for both conventional and competitive roles [whereas] during adolescence there tends to be a marked pressure for girls to adopt more traditional feminine roles" (p. 469). Previous to Siddique and D'Arcy's study, Bardwick (1971) suggested that during adolescence "this sudden pressure [for females] to conform to a rather specific role stereotype is bound to induce some role conflict and anxiety" (p. 144), resulting in situations where adolescent females perceive themselves as having a narrow and unclear choice of roles which may foster a sense of lacking control over their aspirations and behavior patterns.

With respect to the self-esteem scores, no major gender differences were found with any of the scales on the Coopersmith Self-Esteem Inventory. These findings are similar to several earlier studies listed in the Coopersmith self-esteem manual which were performed in order to examine the validity of the self-esteem scales on the SEI (e.g., Donaldson, 1974; Ketcham, & Morse, 1965; Simon, & Bernstein, 1971; Strodtbeck, 1972; Trowbridge, 1972; cited in Coopersmith, 1986).

Interestingly, Simmon, Burgeson, Carlton-Ford, and Blythe (1987) and Fielstein, et al. (1985) all found that the adolescent females in their studies reported lower levels of self-esteem as compared to the males. These authors all posited that due to the changing roles in adolescence related to societal expectations for females and the females' higher reporting negative life events, they become more vulnerable to stress. Consequently, they suffer more losses in self-esteem during adolescence than their male counterparts. Because the present study comprised a sample of preadolescent children, this may explain the lack of gender differences found for self-esteem.

With respect to the gender differences found for the behavior problem scales on the CBCL, teachers reported more behavior problems for males than females. Specifically, inattentive and nervous-overactive behavior symptomatology was reported as higher for the males as compared to the females. These sex differences can be partially explained in developmental terms in that males, by nature, exhibit more 'acting out' or externalizing behaviors (of which both inattentive and nervous-overactive are classified) than females (Achenbach & Edelbrock, 1983; Bee, 1984).

The tendency for males to be higher than females on externalizing items is consistent with Achenbach and Edelbrock's (1981) study and with previous

studies which have found that parents report that boys show more overt conflict with their environments than females (e.g., Kagan, & Moss, 1962; Peterson, 1961; Rutter et al., 1970; Wertlieb, Weigel, & Feldstein, 1987). The Fels longitudinal study which followed children from birth to adulthood found that during the ages of 6 - 11 years certain traits, such as passivity and aggression, began to distinguish males from females and were good predictors of later behavior (Kagan, & Moss). These authors found that passivity was much more stable over time for females than for males, whereas aggression was much more stable over time for males than for females.

With respect to the teacher reported adaptive functioning scales, each of the scales pertain to the teacher's perception of how the students are behaving within the classroom setting. In this study teachers reported that females exhibit more adaptive functioning (e.g., happy, working hard, learning) while males exhibit more behavior problems. Often, teachers have a tendency to view female students' behaviors as more positive than male students because they conform to the structure, rules, and regulations associated with the classroom more so than males. Garrison and Earls (1985) found, in their comparison of teacher reporting with parent reporting, that teachers were more likely to report behavior symptoms as they related to the academic and compliance dimensions of the school context and they were generally reluctant or unable to evaluate symptoms outside of those main areas. When female behavior problems were reported by teachers, they were more likey to be related to internalizing behaviors such as anxiety, withdrawal, worthlessness, and sadness than males (Achenbach & Edelbrock, 1981).

Similarly, Compas, Slavin, Wagner, and Vannatta (1986) found, in their sample of older adolescents, that females exhibited higher levels of obsessive-compulsive symptoms and anxiety symptoms than males. Achenbach and Edelbrock (1981) found in their normative study for the CBCL that parents did not report boys as having more behavior problems and that the only gender differences which existed with respect to parental reporting of behavior problems was in the type of behavior. They postulated that the higher mental health and special education referral rates for boys than girls may result more from conflicts between their behavior and societal norms than from quantitative differences in behavior symptomatology.

Correlations

Correlations associated with the teacher reported behavior problem scales for males in this sample indicated that as age and grade increased the internalizing, externalizing, and total behavior problem score decreased. Additionally, for the females, as age and grade level increased the teacher reporting of internalizing and externalizing behavior problems decreased. These results are consistent with previous research which postulated that as children mature they become better able to regulate and monitor their behavior. From a developmental perspective, children aged 7 to 11 years have entered stage 3 (i.e., the final stage) of Piaget's concrete operational developmental period (Ginsburg, & Opper, 1969).

According to Piaget, children during this stage develop the abilities of

class inclusion, gender constancy, inductive logic, and transitivity which enables the child to think simultaneously of subclasses and larger classes. In other words, the child is cognitively able to assess his/her environment on many different levels at the same time and, therefore, can adjust his/her behavior more effectively. The development of these cognitive abilites should enable a child to assess and/or adapt to his/her environment more effectively than during younger years when the child did not have the ability to understand these concepts.

Negative life events for both the males and females were negatively correlated with all self-esteem variables. Similarly, positive life events for males and females were negatively correlated with the self-esteem varables, except for academic self-esteem for males. Consistent with previous research in this area (e.g., Cohen, Burt, & Bjorck, 1987; Swearingen & Cohen, 1985a), the stress buffering effect of positive life events for self-esteem was not supported in that positive life events did not increase the likelihood of higher self-esteem.

One explanation for the inability of this study's results to support the stress buffering effect of positive life events on self-esteem may be due to the fact that the positive or negative ratings of life events were based on the subject's perception of that particular event. For example, although the death of a relative would seem to be a negative event, some subjects rated it as positive because the death meant that the relative was no longer suffering. However, this type of event could still have a deleterious effect on self-esteem because of the loss experienced by the child.

The above finding may also be explained by Zautra and Reich's (1983) conceptualization of the occurrence of positive events as inducing an active, success-oriented cognitive set that improves coping ability. Accordingly, Swearingen and Cohen (1985a) posit that "it may be that adolescents do not profit from such a cognitive set to the same extent as adults because they have less real control over their environment" (p. 1051). Consequently, children and adolescents may lack the necessary perspective to gain a success-oriented set from the occurrence of positive events.

Contrary to the association between positive life events and self-esteem, positive life events for both the males and the females in this sample were found to be positively related to the teacher reported total adaptive functioning score. This finding indicates that, for these scales (e.g., happy, behaving appropriately, working hard, school performance), positive life events may act as a stress buffer resulting in increases in these types of behaviors for this sample.

As negative and positive life events increased for males in this sample teacher reported internalizing and externalizing behaviors increased, while the total behavior problem score decreased. The results for the females in this sample differed slightly in that as negative and positive life events increased teacher reported depressed, internalizing, externalizing, and total behavior problem score scales increased. The increase in behavior problems as life events increased has been found in previous studies (e.g., Barocas, Seifer, & Sameroff, 1985; Barron, & Earls, 1984; Swearingen, & Cowen, 1985a) which found increased life events to be associated with maladjustment, particularly for those studies which examined depression as a maladjustment criterion.

The distinction between positive and negative life events, for this sample, appeared to have separate effects for the adaptive functioning scales only. With respect to self-esteem and behavior problems, both type of events appeared to be indices of stress which were associated with increased levels of behavior problems and lower levels of self-esteem for both the males and females in this sample. These results are similar to that found in other studies which separated life events by positive and negative ratings (e.g., Newcomb, Huba, & Bentler, 1981; Rowlison, & Felner, 1988; Swearingen, & Cohen, 1985b; Wertlieb, Weigel, Springer, & Feldstein, 1987).

The positive association between positive life events and adaptive functioning is consistent with Rowlison and Felner's (1988) results. Rowlison and Felner note that this could be a result of preexisting levels of adjustment (i.e., adolescents who have a hand in bringing about good events are better adjusted in the first place) just as easily as they are a result of any health-promoting effects of such life events. Zautra and Reich (1983) suggest that positive life events exert their influence primarily on positive adjustment spheres such as increased life satisfaction and maternally reported improvments in a child's overall functioning, but not on negative ones.

Similarly, Newcomb, Huba, and Bentler (1981) found that their distinction of positive and negative life events led to very few significant correlations between positive life events and health measures and that very few of these significant correlations were in the opposite direction of the negative life event correlations. They concluded that in terms of whether desirability makes a difference researchers need to examine the type of event when sampling an adolescent population (e.g., Newcomb, Huba, and Bentler distiguished events according to criteria such as distress, deviance, and accident/illness). This type of distinction may be necessary when examining life events in younger samples, such as that used by the present study.

The relationship between attributional style and self-esteem for both the males and females in this sample correspond to that found in previous studies (Feather, 1983; Feilstein et al., 1985; Seligman et al., 1984). The composite positive attributional style scores were positively related to all the self-esteem variables, indicating that as the subjects' tendency to explain positive events with internal, stable, global causes increased so did their self-esteem. As their composite negative attributional style scores increased then their self-esteem scores decreased, indicating that as their tendency to explain negative events with internal, stable, and global causes increased, their self-esteem levels decreased.

These findings do not suggest that certain types of attributional style result in certain levels of self-esteem as causation cannot be inferred from correlational analysis. However, these results do indicate that attributional style and self-esteem are related in the directions found and this relationship corresponds to that found in the majority of previous studies which have examined the relationship between these two variables. Feilstein et al. (1985) note that "both attributional style and self-esteem are largely a function of a

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common underlying factor, namely, children's history of actual success and failure" (p. 396). They suggest that the more success one has experienced, the higher the self-esteem and the more realistic it is to believe that success is due to actual ability. Conversely, a consistent history of failure might be expected to result in both low self-esteem and a realistic tendency to believe that failure is a function of lack of ability. Further research is needed to clarify whether attributional responses in low and high self-esteem children reflect cognitive biases or realistic appraisals.

The majority of research examining the relationship between attributional style and behavior problems has focussed on depression as a symptomatology criteria in order to explore the reformulated theory of learned helplessness. In this study attributional style was examined in conjunction with the behavior scales on the CBCL in order to determine if, for this age group and for a relatively behavior symptom-free sample, the attributional style could be associated with any behavior problems.

For both the males and the females a tendency to report the causes of positive life events as internal, stable, and global was negatively correlated to teacher reported behavior problems and positively correlated with teacher reported adaptive functioning. Conversely, a tendency to report the causes of negative life events as internal, stable, and global was positively correlated with teacher reported behavior problems and negatively correlated to teacher reported adaptive functioning. Again, causation cannot be inferred from these results as certain attributional styles do not result in particular behavior outcomes. It may be that displaying these types of behaviors creates an environment which contributes to the development of certain attributional styles, or there may be an unknown third variable which affects both the behavior and the development of attributional styles.

Because the CBCL does not contain a depressed scale for the males, depression could only be examined for the female group. Similar to the results found by Seligman et al (1984) and Nolen-Hoeksema, Girgus, and Seligman (1986) this study found that the females' tendency to report the causes of positive events as internal, stable, and global was inversely related to teacher reported depressed scores whereas the tendency to report the causes of negative events as internal, stable, and global was positively related to teacher reported depressed scores.

Conversely, findings from several studies (e.g. Hammen & Cochran, 1981; Hammen, Adrian, & Hiroto, 1988; Tennen, & Herzberger, 1987; Tennen, Herzberger, & Nelson, 1987) have not supported these results. Tennen & Herzberger suggest that the reason for the failure to find a relationship between depression and attributional style could be due to the fact that most depression measures incorporate many neurovegetative signs of depression as well as the tendency to self-blame. Thus, an individual may manifest a negative view of one's self or have a tendency to self-blame, but if they do not experience a number of the other depressive symptoms their depression scores will remain relatively low.

Re-examinations of Seligman et al.'s (1979) reformulated learned

helplessness model (Alloy, 1982; Metalsky et al., 1982) suggest that the depressive attributional style the model refers to is a style that makes people vulnerable to depression. Abramson, Metalsky, and Alloy (1986; cited in Alloy, Abramson, Metalsky, & Hartlage, 1988) suggest that the attribution vulnerability model is valid only for subsamples of hopelessness depression. Once the criteria for identifying such specific vulnerable subgroups have been clarified, it may be possible to find support for a narrower version of the attribution vulnerability model.

The depressed scale on the CBCL contains 14 items pertaining to depressive behaviors, the majority of which would be exhibited by a child with low self-worth (e.g., jealous, clings to adults, feels unloved, sad, whining, and worrying), therefore, this may explain why this study found a relationship between attributional style and depression which corresponds to that found by Seligman et al. (1984). A comparison study which randomly sampled a control group from the general population and used a clinical population for comparison would have to be undertaken in order to examine this possibility.

Limitations of Study and Future Recommendations

As previously mentioned, the results from this study are limited to the sample of teachers and students surveyed and may not be generalizable to other situations because the sample was not obtained randomly from the general population. Additionally, the need to utilize a longitudinal study when examining life events has been put forth by many researchers (Dean, & Lin, 1977; Leavy, 1983; Newcomb, Huba, & Bentler, 1981; Rowlison, & Felner,

1988; Wertlieb, Weigel, Springer, & Feldstein, 1987) in order to examine the sequence of stress, support, and coping behaviors across time and setting. As Rowlison and Felner note, the use of a cross-sectional design precludes the investigation of some potentially interesting causal hypotheses. In other words, although cumulative, negative life change may lead to impaired functioning, it may also be that impaired functioning leads to the occurrence of more negative life events and daily hassles. In order to untangle these competing hypotheses, further research using prospective designs is needed.

The methodological issues associated with the assessment of life events and the controversy with respect to how they should be measured is inherent in any life event study. First, investigations of life events are based on retrospective reports of life events and are therefore susceptible to the potential errors that this involves, particularly as the events were reported by the subjects themselves and not by the parents. The examination of different types of life events (not just in terms of positive or negative) such as illness/death and controllability/uncontrollability is needed if this study was to be replicated (Cohen-Sandler, Berman, & King, 1982; Rowlison, & Felner, 1988). As Hodges, Tierney, and Buchsbaum (1984) note there is no simple one-to-one pattern between stressors and response, in that different types of stressors lead to different pathways of adjustment or maladjustment. Several researchers suggest that life events should be assessed through the use of careful interviews rather than so-called magnitude estimation of life events based on questionnaire scores (e.g., Bailey, & Garralda, 1987; Steinhausen, & Radtke,
1986).

Future studies which incorporate measures of coping skills (a personal resource) and social support (an environmental resource) with life events in a nonclinical population would perhaps glean more information with regards to the coping styles nonclinical children possess which allows them to effectively adjust to their experiences. Felner, Ginter, Boike, & Cowen (1981) suggest that it is important to identify individual and support-system variables that add to the hazards of crisis events or facilitate their effective mastery. Steinhausen and Radtke (1986) suggest that in order to attain further insights into the impact of life events on child psychiatric disorders future studies might profit from prospective research strategies, taking into account the personal significance of life events and the individual's coping capacities. The present study incorporated attributional style as a personality variable and examined its relationship to the various behavioral outcomes. A comparison study using a sample which is randomly selected from the general population and a clinical sample is needed before the significance of attributional style in examining life events for this age group can be discussed.

The majority of studies incorporating social support into their assessments of stress and resources in their subjects have found that social support in some cases does seem to have a mediating effect for the individual experiencing negative life events (e.g., Bell, LeRoy, & Stephenson, 1982; Cauce, Felner, & Primavera, 1982; Dean, & Lin, 1977). Sandler (1980) suggests that if social support is to be examined one needs to consider the structure of the interpersonal relationships (e.g., size, density) and content of interactions (i.e., the quality of the support). A comparison with a clinical population would then be useful to identify if there is a group of children at risk as dependent upon their personal and environmental resources. One would speculate that if both of these resources are low, then, regardless of the number of life events exposed to, these children would be at a high risk for developing pathologies. Additionally, this risk may increase as the number of life events exposed to increases.

From the review of the literature available and the findings of the present study the following is a number of hypothesis which may be of interest for future studies which examine life events and/or attributional styles in preadolescent children:

H1: Preadolescent females experience similar amounts of negative life events as compared to their male peers but during adolescence this trend changes to that of females experiencing more negative life events and this trend continues well into adulthood.

H2: Preadolescent females exhibit more positve attributional styles as compared to their male peers.

H3: Positive life events act as a stress buffer for preadolescent children with respect to adaptive functioning within the classroom setting but do not act as a stress buffer when examining more global personality variables such as self-esteem.

H4: Negative attributional styles in conjunction with the experience of many

negative life events have deleterious effects on psychological well-being in preadolescent children.

H5: The experience of many positive life events during the preadolecent years enhances the development of positive attributional styles, particularly for females.

<u>Conclusions</u>

The purpose of this exploratory study was to examine gender differences with respect to the reporting of negative life events, positive life events, attributional style, self-esteem, behavior problems and adaptive functioning and, to examine the relationships between: 1) life events and attributional style, 2) life events and self-esteem, 3) life events and teacher reported behavior, 4) life events and teacher reported adaptive functioning, 5) attributional style and self-esteem, 6) attributional style and teacher reported behavior problems, and 7) attributional style and teacher reported adaptive functioning in a nonclinical sample of children ages 9 through 11.

Contrary to the results found in studies which used adolescent or adult samples (e.g., Burke, & Weir, 1978; Swearingen, & Cohen, 1985a), this study did not find that the female subjects were at a disadvantage when compared to male peers with respect to the experiencing of negative life events. In fact, the females in this study's sample reported experiencing greater numbers of positive life events and both the males and females reported experiencing similar amounts of negative life events. Researchers (e.g, Bardwick, 1971; Zautra, & Reich, 1983) suggest that the adolescent/adult findings are a result of developmental changes which occur during adolescence and the changing of society expectations towards females when they reach puberty. The results from this study support these premises in that the preadolescent subjects used in this study did not report differences with respect to negative events. Consequently, preadolescent females do seem to experience events that are similar to that of their male peers.

The results did not support the stress buffering effect of positive life events with respect to self-esteem for the males or the females in this sample. However, positive life events for both males and females were found to be positively related to the teacher reported total adaptive functioning scale which assesses areas such as how happy the child is, how appropriately is he/she behaving, and how hard is he/she working. For this particular sample, both the positive and negative life events seemed to be indices of stress which were negatively related to the teacher reported behavior symptomatology.

The relationships associated with attributional style and self-esteem corresponded to that found in other studies (i.e., healthy attributional styles were positively related to the self-esteem variables) for both the males and females in this sample. With respect to the attributional style scores and behavioral outcomes for this sample, a tendency to explain negative events with internal, stable, and global causes was positively related to behavior problems and negatively related to total adaptive functioning for both the males and females. The tendency to explain positive events with internal, stable, and global causes was negatively related to behavior problems and was positively related to total adaptive functioning for both the males and the females.

The present study was an initial attempt to begin to understand the complex role individual variables such as attributional style play when examining the life events experienced by children ages 9 through 11. Future studies which use a more complex research design (e.g., a longitudinal research design) and randomly gather subjects from the general population are needed in order to reveal the complex nature of the relationship between life events and behavioral symptomatology for children of this age group. The investigation of environmental resources such as social support and further individual variables such as coping skills when examining the effects of life events experienced by this age group of children is also needed. These investigations may provide professionals with important information which will enable them to effectively assess and treat the needs of children who are effected by the stress brought about by the occurrence of life events.

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APPENDIX A

CASQ

- 1. You get an "A" on a test.
 - A. I am smart.
 - B. I am good in the subject that the test was in.
- 2. You play a game with some friends and you win.
 - A. The people that I played the game with did not play the game well.
 - B. I play that game well.
- 3. You spend a night at a friend's house and you have a good time.
 - A. My friend was in a friendly mood that night.
 - B. Everyone in my friend's family was in a friendly mood that night.
- 4. You go on a vacation with a group of people and you have fun.
 - A. I was in a good mood.
 - B. The people I was with were in good moods.
- 5. All of your friends catch a cold except you.
 - A. I have been healthy lately.
 - B. I am a healthy person.
- 6. Your pet gets run over by a car.
 - A. I don't take good care of my pets.
 - B. Driver's aren't cautious enough.
- 7. Some kids that you know say that they do not like you.
 - A. Once in a while people are mean to me.
 - B. Once in a while I am mean to other people.
- 8. You get very good grades.
 - A. School work is simple.
 - B. I am a hard worker.

- 9. You meet a friend and your friend tells you that you look nice.
 - A. My friend felt like praising the way people looked that day.
 - B. Usually my friend praises the way people look.
- 10. A good friend tells you that he hates you.
 - A. My friend was in a bad mood that day.
 - B. I wasn't nice to my friend that day.
- 11. You tell a joke and no one laughs.
 - A. I do not tell jokes well.
 - B. The joke is so well known that it is no longer funny.
- 12. Your teacher gives a lesson and you do not understand it.
 - A. I didn't pay attention to anything that day.
 - B. I didn't pay attention when my teacher was talking.
- 13. You fail a test.
 - A. My teacher makes hard tests.
 - B. The past few weeks my teacher has made hard tests.
- 14. You gain alot of weight and start to look fat.
 - A. The food that I have to eat is fattening.
 - B. I like fattening foods.
- 15. A person steals money from you.
 - A. That person is dishonest.
 - B. People are dishonest.
- 16. Your parents praise something that you make.
 - A. I am good at making some things.
 - B. My parent like some of the things I make.

- 17. You play a game and you win money.
 - A. I am a lucky person.
 - B. I am lucky when I play games.
- 18. You almost drown when swimming in a river.
 - A. I am not a very cautious person.
 - B. Somedays I am not a cautious person.
- 19. You are invited to a lot of parties.
 - A. A lot of people have been acting friendly toward me lately.
 - B. I have been acting friendly toward a lot of people lately.
- 20. A grown-up yells at you.
 - A. That person yelled at the first person he saw.
 - B. That person yelled at a lot of people he saw that day.
- 21. You do a project with a group of kids and it turns out badly.
 - A. I don't work well with the people in the group.
 - B. I never work well with a group.
- 22. You make a new friend.
 - A. I am a nice person.
 - B. The people that I meet are nice.
- 23. You have been getting along well with your family.
 - A. I am easy to get along with when I am with my family.
 - B. Once in a while I am easy to get along with when I am with my family.
- 24. You try to sell candy, but no one will buy any.
 - A. Lately a lot of children are selling things, so people don't want to buy anything else from children.
 - B. People don't like to buy things from children.

- 25. You play a game and you win.
 - A. Sometimes I try as hard as I can at games.
 - B. Sometimes I try as hard as I can.
- 26. You get a bad grade in school.
 - A. I am stupid.
 - B. Teachers are unfair graders.
- 27. You walk into a door and you get a bloody nose.
 - A. I wasn't looking where I was going.
 - B. I have been careless lately.
- 28. You miss the ball and your team loses the game.
 - A. I didn't try hard while playing ball that day.
 - B. I usually do not try hard when I am playing ball.
- 29. You twist your ankle in gym class.
 - A. The past few weeks the sports we played in gym class have been dangerous.
 - B. The past few weeks I have been clumsy in gym class.
- 30. Your parents take you to the beach and you have a good time.
 - A. Everything at the beach was nice that day.
 - B. The weather at the beach was nice that day.
- 31. You take a train which arrives so late that you miss a movie.
 - A. The past few days there have been problems with the train being on time.
 - B. The trains are almost never on time.
- 32. Your mother makes you your favourite dinner.
 - A. There are a few things that my mother will do to please me.
 - B. My mother likes to please me.

- 33. A team that you are on loses a game.
 - A. The team members don't play well together.
 - B. That day the team members didn't play well together.
- 34. You finish your homework quickly.
 - A. Lately I have been doing everything quickly.
 - B. Lately I have been doing school work quickly.
- 35. Your teacher asks you a question and you give the wrong answer.
 - A. I get nervous when I have to answer questions.
 - B. That day I got nervous when I had to answer questions.
- 36. You get on the wrong bus and you get lost.
 - A. That day I wasn't paying attention to what was going on.
 - B. I usually don't pay attention to what's going on.
- 37. You go to an amusement park and you have a good time.
 - A. I usually enjoy myself at amusement parks.
 - B. I usually enjoy myself.
- 38. An older kid slaps you in the face.
 - A. I teased his younger brother.
 - B. His younger brother told him I had teased him.
- 39. You get all the toys you want on your birthday.
 - A. People always guess what toys to buy me for my birthday.
 - B. This birthday people guessed right as to what toys I wanted.
- 40. You take a vacation in the country and you have a wonderful time.
 - A. The country is a beautiful place to be.
 - B. The time of the year that we went was beautiful.
- 41. Your neighbours ask you over for dinner.
 - A. Sometimes people are in kind moods.
 - B. People are kind.

- 42. You have a substitute teacher and she likes you.
 - A. I was well behaved during class that day.
 - B. I am almost always well behaved during class.
- 43. You make your friends happy.
 - A. I am a fun person to be with.
 - B. Sometimes I am a fun person to be with.
- 44. You get a free ice-cream cone.
 - A. I was friendly to the ice-cream man that day.
 - B. The ice-cream man was feeling friendly that day.
- 45. At your friend's party the magician asks you to help him out.
 - A. It was just luck that I got picked.
 - B. I looked really interested in what was going on.
- 46. You try to convince a kid to go to the movies with you but he won't go.
 - A. That day he did not feel like doing anything.
 - B. That day he did not feel like going to the movies.
- 47. Your parents get a divorce.
 - A. It is hard for people to get along well when they are married.
 - B. It is hard for my parents to get along well when they are married.
- 48. You have been trying to get into a club and you don't get in.
 - A. I don't get along well with other people.
 - B. I can't get along well the people in the club.

APPENDIX B

PARENT/GUARDIAN CONSENT FORM

Dear Parent/Guardian:

I am a graduate student in the Faculty of Educational Psychology at the University of Calgary, working under the supervision of Dr. W. Zwirner. This letter is a request for your permission to allow your child to participate in my research study. The study will be examining the effects of life events and attributional style (i.e., how the individual attributes the causes for events he/she experiences - internally or externally) with respect to self-esteem and classroom behavior in children aged 9 - 11 years.

The research itself will involve having the children complete questionnaires pertaining to life events experienced during the previous year, attributional style, and self-esteem. This should take approximately one hour of school time. Classroom teachers will be asked to complete a classroom behavior questionnaire. Parents' permission will be obtained prior to the completion of any of the questionnaires.

The answers to all questions will be voluntary and kept in the strictest confidence. Parents will have the right to withdraw their child from the study at any time without penalty. Similarly, subjects will have the right to withdraw at any time, and the researcher may terminate the child's involvement at any time. Further, no reference to any child, parent, or teacher by name will be made as the findings of the study will be reported in a statistical manner. Anonymity will be fully ensured. A summary of the research results will be available upon request to all involved in the study.

If you are willing to have your child participate in this study please sign below to indicate your understanding of the above information and to authorize your child's involvement. Please return the signed consent form to your child's classroom teacher. Should you wish to contact me, my home telephone number is 241-1635. Thank you very much for your co-operation.

Sincerely,

Connie Lindsey Graduate Student Department of Educational Psychology I agree to my child's participation in Connie Lindsey's study on life events, attributional style, self-esteem, and classroom behavior in children aged 9 - 11 years.

1

Student Name

Signature of Parent/Guardian

School

.

Date

Telephone Number

APPENDIX C

PRINCIPAL CONSENT FORM

Dear Principal:

I am a graduate student in the Faculty of Educational Psychology at the University of Calgary, working under the supervision of Dr. W. Zwirner. This letter is a request for your permission to allow my research study to be conducted in your school. The study will be examining life events and attributional style (i.e., how the individual attributes the causes for events he/she experiences - internally or externally) with respect to self-esteem and classroom behavior in children aged 9 - 11 years.

The research itself will involve having classroom teachers select students who meet the study's criteria and then complete the Teacher Report Form of the Achenbach Child Behavior Checklist for each child from whom parental consent has been obtained. The students will be required to complete questionnaires pertaining to life events experienced during the previous year, attributional style, and self-esteem which will take approximately one hour of classroom time. Parents' permission will be obtained prior to the completion of any questionnaires.

The answers to all questions will be voluntary and kept in the strictest confidence. No reference to any child, parent, or teacher by name will be made as the findings of the study will be reported in a statistical manner. Anonymity will be fully ensured. A summary of the research results will be available upon request to all involved in the study.

If you are willing to have your students and teachers become involved in this study, please sign below to indicate your school's involvement. Should you wish to contact me my home telephone number is 241-1635. Thank you very much for your cooperation.

Sincerely,

Connie Lindsey Graduate Student Department of Educational Psychology

CONSENT GIVEN BY:

Name of Principal

School

Signature

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Date

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APPENDIX D

TEACHER CONSENT FORM

Dear Teacher:

I am a graduate student in the Faculty of Educational Psychology at the University of Calgary, working under the supervision of Dr. W. Zwirner. This letter is a request for your permission to participate in my research study to be conducted in your school. The study will be examining life events and attributional style (i.e., how an individual attributes the causes for events he/she experiences - internally or externally) with respect to self-esteem and classroom behavior in childred aged 9 - 11 years.

The research itself will involve having classroom teachers select students who meet the study's criteria and then complete the Teacher Report Form of the Achenbach Child Behavior Checklist for each child from whom parental consent has been obtained. The students will be required to complete questionnaires pertaining to life events experienced during the previous year, attributional style, and self-esteem, which will take approximately one hour of classroom time. Parental permission will be obtained prior to the completion of any of the questionnaires.

The answers to all questions will be voluntary and kept in the strictest confidence. No reference to any child, parent, or teacher by name will be made as the findings of the study will be reported in a statistical manner. Anonymity will be fully ensured. If requested, a summary of the research results will be made available to all involved in the study.

If you are willing to participate in this study, please sign below to indicate your understanding of the above information and to authorize your involvement. Thank you very much for your cooperation.

Sincerely,

Connie Lindsey Graduate Student Educational Psychology CONSENT GIVEN BY:

Name of Teacher

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School

Signature

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Date

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