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**ADOLESCENT STUDENTS AT RISK: THE ROLES OF  
STRESS, DISTRESS, AND COPING**

**by**

**Jennifer Massicotte**

**A Dissertation  
Submitted to the  
Faculty of The Graduate College  
in partial fulfillment of the  
requirements for the  
Degree of Doctor of Education  
Department of Educational Leadership**

**Western Michigan University  
Kalamazoo, Michigan  
April 1996**

## **ADOLESCENT STUDENTS AT RISK: THE ROLES OF STRESS, DISTRESS, AND COPING**

**Jennifer Massicotte, Ed.D.**

**Western Michigan University, 1996**

Male and female adolescents who reported recent suspension/ threats of suspension or academic failure were compared to male and female adolescents who did not report these two variables of dropping out on three measures--the discrete negative uncontrollable events experienced (LEQ-A, Garmezy, Masten, & Tellegen [1985]), the level of distress (GHQ-30, Goldberg [1972]), and the types of coping skills used (A-COPE, Patterson & McCubbin [1983]). Native and non-Native at risk for suspension and academic failure rates were also compared using archival data from a community mental health survey of 714 adolescents (36 Native) attending high school in Northern Ontario.

Native adolescents reported significantly greater at risk for suspension and academic failure than non-Native students. Thirty-six percent of Native adolescents reported at risk for suspension compared to 15% non-Native adolescents. Nineteen percent of Natives reported recent academic failure compared to 8% non-Natives.

Male and female adolescents at risk for suspension or academic failure reported significantly more discrete adverse events compared to males and females not at risk. Females at risk for suspension or academic failure reported the greatest stress, followed by males at risk, females not at risk, and males not at risk.

Male and female adolescents at risk for suspension reported significantly more distress than males and females not at risk for suspension. Females at risk for suspension reported the most distress followed by females not at risk. The hypothesis that there would be differences in distress for academic failure was rejected.

Males at risk for suspension differed significantly on 3 of the 12 coping styles compared to males not at risk. Females at risk for suspension differed on 5 coping styles. Males and females who reported academic failure each differed on one coping style compared to adolescents who did not fail recently.

This study supports the need for educational leaders to examine racial/ethnic reasons for differences in suspension and academic failure rates. It supports the connection between at risk for dropping out, as measured by suspension and academic failure and stress, distress, and coping styles of adolescents.

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**Jennifer Massicotte**

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## CHAPTER I

### INTRODUCTION

If the ultimate goal of educational leadership is to prepare all students to become contributing members of society, then the school must become more flexible and knowledgeable in addressing the programming needs of potential adolescent dropouts. Two school-related factors that contribute to dropping out are suspension and academic failure (Ekstrom, Goertz, Pollack, & Rock, 1986; Rumberger, 1983; Sullivan, 1988); yet there is a reciprocal relationship between school-related processes and student characteristics (Natriello, Pallas, & McDill, 1986).

Dropouts have lower self-esteem (Bachman, Green, & Wirtanen, 1971; Ekstrom et al., 1986) and lower needs for self-development, commitment to social values, and feelings of personal efficacy (Bachman et al., 1971). High risk students can be distinguished by the intensity of unacceptable behavior (Larson, 1989) and they differ in coping ability (Stevens, 1980; Stevens & Pihl, 1987). In addition, a negative relationship exists between school performance and life events, such that as grades decline undesirable life events, particularly negative life events, increase significantly (Garrison, Schoenbach, Schluchter, & Kaplan, 1987).

Gender differences impact on the complex issue of dropouts and measures of human behavior. Dropouts tend to be higher among males



(Ekstrom et al., 1986; Rumberger, 1987) with males receiving more suspensions (Wu, Pink, Crain, & Moles, 1982) and academic failure (Funk, 1969). Yet within the dropout population females tend to be more self-effacing and have lower levels of self-confidence and self-esteem, and they have more emotional problems than male dropouts (Karp, 1988).

There are few dropout studies which include the category Native as a variable. Dropout rates are higher among members of racial, ethnic, and language minorities (Rumberger, 1987) with Native students having the highest race/ethnic dropout rates (Corwin, 1978; Peng & Takai, 1983).

Though the data indicates that there are social-psychological characteristics that distinguish dropouts from stay-ins, there are no consistent categories or measures of these variables to sustain any findings (Wehlage & Rutter, 1986). Suspension and academic failure may provide indicators to a wider set of student characteristics that are associated with stressful life events, psychological distress, and coping ability. Differences between Native and non-Native students may affect suspension and academic failure rates. Levels of stress, distress, and coping ability which vary in relation to sex may impact on whether or not the adolescent becomes a dropout.

### Statement of the Problem

Reducing the dropout rate is of high priority for educational leaders. There has been more research on the problem of dropouts in the last 2 years than in the previous 15 years (Rumberger, 1987). Phi Delta

Kappa delegates at its biennial council identified at-risk students as the most significant educational issue of the 1990s (Goll, Holland, & Lanese, 1989). The reported dropout rate remains high with an average Canadian dropout rate of 30% (Neufeld & Stevens, 1992) and a U.S. dropout rate of 16% (U.S. Bureau of Census, 1985). Lack of a high school diploma is tantamount to denial of employment (Wehlage & Rutter, 1986). If a high school diploma is the gateway to higher education, job opportunity, and is paramount for competitive success in the world economy, then increasing student retention must become a national, if not a global, concern.

Much of the research on both male and female adolescent dropouts has focused upon the characteristics of adolescents who drop out and the factors that influence dropout behavior (Bachman et al., 1971; Fine, 1986; McCaul, Donaldson, Coladarci, & Davis, 1992). Recent research has also focused upon the influence of school related factors (Rumberger, 1987; Wehlage & Rutter, 1986) that contribute to dropping out with Natriello et al. (1986) suggesting that there is a reciprocal relationship between student characteristics and school processes. Two significant school related at-risk factors that strongly correlate with dropping out are suspension and grade repetition (Bachman et al., 1971; Ekstrom et al., 1986; Pallas, 1987; Safer, 1986a, 1986b; Wheelock, 1986a) with poor academic performance the best predictor of student dropouts (Pallas, 1987; Sullivan, 1988).

Garrison et al. (1987) determined a negative relationship existed between school performance and life events, while Figuiera-McDonough (1983) found an inverse relationship between grades and all types of

delinquent behavior. Research has been limited though in identifying the factors associated with adolescent behaviors or stressors that underlie these issues (Safer, 1986b; Stevens & Pihl, 1980; 1982a; 1982b). Early identification of these high risk students and introducing corresponding preventive measures may enable educational leaders to seriously curtail the dropout rate.

Female adolescents report more negative life events (Compas, Slavin, Wagner, & Vannatta, 1986; Wagner & Compas, 1990), more psychological distress (D'Arcy & Siddique, 1984; Goldberg & Williams, 1988), and they use a broader range of coping patterns than males (Patterson & McCubbin, 1987). Females at risk of academic failure have more anxiety and lower coping responses than at-risk males (Stevens & Pihl, 1987). While female dropouts tend to be more self-effacing, have lower levels of self-confidence and self-esteem, and have more emotional problems than male dropouts (Karp, 1988). The dropout rates are higher among males than females (Ekstrom et al., 1986; Frase, 1989; Peng & Takai, 1983; Rumberger, 1987) with males more likely to drop-out due to suspension than females (Arnold, 1985; Ekstrom et al., 1986; Peng, 1985; Peng & Takai, 1983).

Dropouts tend to be higher among ethnic or racial minorities which include American Indians (Frase, 1989; Peng & Takai, 1983; Rumberger, 1987). Research studies have identified a wide variety of factors that influence dropout behavior, but few have examined how these factors operate on different race and sex groups (Rumberger, 1983).

This dissertation study examined the frequencies of stressful life events, the levels of distress, and the coping mechanisms of male and

female adolescents at risk for suspension or academic failure, compared to their peers who were not at risk on these two variables of dropping out. Native and non-Native at risk for suspension and academic failure rates were also compared.

### Purpose of Study

This dissertation, using archival data, studied the stress related differences between male and female adolescents who reported that recently they had either been suspended/threatened with suspension or experienced academic failure, compared to male and female students who did not report one of these two significant variables of dropping out of school. The analyses of the stress related differences included the degree of discrete negative uncontrollable life events experienced, the levels of distress, and the types of coping skills used. Native and non-Native at-risk rates for suspension and academic failure were also compared.

By examining levels of adolescent stress, distress, and coping orientation that may impact on male and female adolescents dropping out of high school--as measured by suspension and academic failure--educational leaders will have access to research information needed to provide appropriate intervention and counseling programs for this segment of the student population. In addition, any differences between Native and non-Native at risk for suspension and academic failure rates will contribute to the growing need to look at educational programs for Native students.

## Rationale of Study

There is a profound interest among educational leaders to reduce the dropout rate. Though there are concerns about the lack of a standard definition of what constitutes a dropout and how the dropout rate is calculated (Hammack, 1986; Morrow, 1986), there is no question that academic achievement and behavior problems that result in suspension are two major variables that influence dropping out (Ekstrom et al., 1986; Rumberger, 1983; Sullivan, 1988). Race also increases the potential for dropping out (Arnold, 1985; Frase, 1989; Peng & Takai, 1983; Rumberger, 1987).

Limited attention has been paid to the psycho-social factors that affect dropping out. Larson (1989) found that high risk students for dropping out and secondary school failure could benefit from training in self-control and problem-solving skills. Garrison et al. (1987) determined that as grades declined, undesirable life event scores increased significantly. D'Onofrio & Klesse (1990) reported that stress can lead to adolescents acting out, getting poor grades, and dropping out. Compas (1987b) and Johnson (1986) wrote on the significant relationship between stress and emotional/behavioral problems in adolescents. Frymier et al. (1992) found that risk is pervasive and manifests itself in general ways for students at risk of academic and social failure. Being at risk in one area makes a student more likely to be at risk in other areas.

This dissertation study combined two key variables associated with dropping out, suspension and academic failure, with three psycho-social factors that relate to the field of mental health--the amount of

discrete negative uncontrollable life events reported, the levels of psychological distress, and the types of coping mechanisms used. Differences between male and female adolescents who reported that within a year they had been either at risk of suspension or academic failure were compared to peers who had not been at risk for suspension or academic failure. Data comparing Native and non-Native at risk for suspension and academic failure rates were also analyzed.

This study has the potential to help reduce the dropout rate by providing educational leaders with a valuable source of data that could be used to both enrich the understanding of student differences, as well as provide information relevant to the development of intervention and counseling programs.

### Research Questions

Educational leaders are concerned with the issue of dropping out. Consistent with the initial statement of the problem and the current research on school performance and suspension, the research questions examined in this study compared adolescents who recently reported suspension/threats of suspension with their peers who did not report being at risk for suspension or academic failure. The research questions encompassed three broad areas of mental health and included: (1) stress as measured by the frequency of discrete, undesirable, and uncontrollable life events; (2) psychological distress; and (c) coping orientation. Native and non-Native at risk for suspension and academic failure were also compared.

The research questions formulated included:

1. Is there a relationship between Native and non-Native at risk for suspension rates?

2. Is there a relationship between Native and non-Native academic failure rates?

3. Is there a relationship between male and female adolescents who report either suspension/threats of suspension or academic failure compared with male and female adolescents who do not report suspension/threats of suspension or academic failure in their levels of stress as measured by the frequency of discrete negative uncontrollable life events?

4. Is there a relationship between male and female adolescents who report either suspension/threats of suspension or academic failure compared with male and female adolescents who do not report suspension/threats of suspension or academic failure in their levels of psychological distress?

5. Is there a relationship between male and female adolescents who report either suspension/threats of suspension or academic failure compared with male and female adolescents who do not report suspension/threats of suspension or academic failure in their coping mechanisms?

### Definition of Terms

The definitions of the mental health terms used in this study were defined by the three research instruments used to measure stress, distress, and coping that formed part of a community survey conducted among adolescents who were attending school. Stress was defined as

the amount of discrete negative uncontrollable life events experienced. It was measured by specific questions on the Life Events Questionnaire-Adolescent Form (LEQ-A) developed by Garmezy, Masten, and Tellegen (1985). Throughout this dissertation study the term discrete adverse events was used interchangeably with the term discrete negative uncontrollable life events.

Distress was defined as the amount of distress measured by the General Health Questionnaire--the 30-item version (GHQ-30) developed by Goldberg (cited in D'Arcy & Siddique, 1984). Coping was defined by the 12 coping factors and behaviors on the Adolescent Coping Orientation for Problem Experiences (A-COPE) designed by Patterson and McCubbin (1983).

The dropout variables at risk for suspension and academic failure were based on two questions from the LEQ-A. At risk for suspension was defined by Question 32 on the LEQ-A, "I was threatened with suspension or was suspended from school at least once during this past year." Academic failure or school performance was identified by Question 30 on the LEQ-A, "I failed a grade or was held back during this past year."

### Summary

Archival data from three research instruments used in a community mental health survey of adolescents attending school was used to measure levels of stress, distress, and coping orientation among male and female adolescents who reported that during the past year they either had been suspended/threatened with suspension or experienced



academic failure, compared to their peers who did not report being at risk for suspension or academic failure. Differences between Native and non-Native at risk for suspension and academic failure rates were also compared. This dissertation study contributes to the broad knowledge of research available to educational leadership on student dropouts and provides data to assist in the development of intervention and counseling programs.

The review of the literature, including school performance and suspension, as well as the psycho-social factors of dropping out, is discussed in Chapter II. The research design and methodology for the study are detailed in Chapter III. Analysis of the data and synthesis of the research findings are the focus of Chapters IV and V. The topic of review begins with the dropout issue.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

The purpose of this dissertation study was to examine the stress related differences between male and female adolescents who reported being at risk for suspension or academic failure compared to their peers who did not report these variables. Stress related differences in this research study included the degree of discrete negative uncontrollable life events experienced, the levels of psychological distress, and the types of coping skills used. Native and non-Native at risk for suspension and academic failure rates were compared.

The review of the literature begins with the enormous complexity of the dropout issue. Concerns regarding the computation of the dropout rate and a standard definition of dropout, as well as differences between U.S. and Canadian dropout rates are discussed. Gender and race differences which further affect the issue of dropouts and whose measurement in terms of stress related differences need to be considered are then reviewed.

The review of the literature continues with the connections between school performance, suspension, and dropping out. It then focuses on the link between school performance and dropping out by examining retention and dropping out, dropping out as it relates to race, socioeconomic status, and achievement, and then concludes with academic failure.

The review of the literature also examines the connection between suspension and dropping out. This portion of the review addresses at-risk behavior, suspension and retention, multisuspension, and race and suspension.

The psychosocial factors that affect dropping out, retention, and suspension follow the broader topic of psychosocial factors and dropping out. Gender issues and Canadian studies are included within this framework.

The review then details the general role of stress and its relationship to adolescents. Life events, their measurement, and adolescents are considered as a specific measure of stress. The remaining two measurements of distress and coping are then introduced. Both include the interrelationships among distress, coping, stress, life events, and gender found in the literature. The summary then completes the chapter review.

The review of the literature begins with the dropout issue.

### **The Dropout Issue**

Dropouts are the silent third in the system. Although many might make a lot of noise while they are in class, their leaving generally causes hardly a ripple. They slip from school into a narrowly circumscribed work world, an articulate, sensitive, and adequately intelligent group of young people wearing an academic mark of Cain.

--Karp, 1988, p. 15

The dropout problem in North America is a quiet killer of the American dream (McMillan & Behrman, 1986). Dropout statistics are numerous but there are concerns regarding the lack of a standard definition and the computation of the dropout rate (Hammack, 1986; Morrow, 1986). The Phi Delta Kappa's Center for Evaluation, Development and

Research, concluded that it could not agree what a dropout is as there are as many different definitions of a dropout as there are school districts recording dropout (Barber, 1985).

Dropout rates are calculated many ways including attendance records and surveys. The Canadian Teachers' Federation (1994) reported that school attendance records overestimate dropout rates as they count students as dropouts even if they move to another school board or province, return to school after dropping out, or pursue different forms of education. Survey responses underestimate the dropout rate, though they tend to give more accurate information than attendance records.

Dropout rates can be calculated by three separate rates--status, event, and cohort rates; each rate may provide a different picture of the dropout phenomenon. Frase (1989), in reporting on the dropout rates in the United States for the National Center for Education Statistics, calculated an average event dropout rate of 4.4% for students in Grades 10 to 12 between 1985 and 1988, a status dropout rate of 12.9% for 16 to 24-year-olds who were not enrolled in high school in 1988, and a cohort dropout rate of 17.3% for sophomores in 1980 who had not graduated 2 years later.

#### U.S. Dropout Rates

Hendrick, MacMillan, Balow, and Hough (1989), in reviewing the literature on early school leavers in America, stated that the number of students graduating increased from around 10% in the early 1900s to about 50% in the 1950s. It then plateaued to approximately 75% in the 1970s and 1980s. Researchers including Mann (1986), Pallas (1987),

Peng (1985), and Rumberger (1987) confirmed the current American dropout rate at approximately 25%. These researchers probably cited the event dropout rate as Frase (1989) reported that nationally the status dropout rate for 16- to 24-year-olds declined from 16.2% in 1968 to 12.9% in 1988; however, Kaufman, McMillen, and Whitener (1991) indicated the status dropout rate declined from 14.1% in 1973 to 12.1% in 1990.

The U.S. Census Bureau uses a narrow definition of dropout which includes persons who have a regular or equivalent high school certificate, or persons who are still attending school (Rumberger, 1987). Both Pallas (1987) and Rumberger (1987) used rates from the U.S. Bureau of Census. Pallas (1987) calculated that nationally, slightly less than three-quarters of all 18- and 19-year-olds have completed high school and approximately 30% of students who dropout of school eventually graduate. Rumberger (1987) reported a corresponding dropout rate of 16%.

Studies that follow a cohort of students over a period of time tend to exclude dropout data prior to the start of the study and may, or may not, include students who dropped out but eventually returned to high school after the start of the study. Bachman et al. (1971) estimated a dropout rate of between 18% to 20% among a national sample of 10th grade boys. Their sample did not account for boys who dropped out before the 10th grade. Peng and Takai (1983), in a similar longitudinal study of sophomores using data from the High School and Beyond (HS&B) study, reported a dropout rate of nearly 14%. Approximately 6% of an eighth grade cohort as measured by the National Education

Longitudinal Study (NELS:88) dropped out over a 2-year period (Kaufman, Bradby, & Owings, 1992; Kaufman et al., 1991).

Researchers Barro and Kolstad (1987) and Pallas (1986) have argued that overall the HS&B dropout rate of 14% underestimated the "true" dropout rate by 4% to 7% as students who dropped out before the study was initiated were not calculated. This criticism may be a mute point though as recent data from the HS&B third follow-up as analyzed by Frase (1989) and Kaufman et al. (1991) reported that by 1986 about 46% of the HS&B cohort, or 8% of the cohort, had either returned to school or had earned a high school diploma or its equivalent.

Large urban centers record a higher dropout rate. The dropout rates for cities such as New York, Chicago, and Los Angeles have been reported as high as 50% (National Center for Education Statistics, cited in Macdonald, 1989). Fine (1986), using ethnographic techniques in studying a ninth grade cohort at a New York high school, calculated a 65.6% dropout rate for the cohort. Wheelock (1986a) cited a dropout rate of 43% reporting that more students dropped out than graduated in 1984-1985 from the Boston Public Schools. Between the years 1981 and 1985 more Boston Public School students dropped out than those who graduated in the class of 1985 (Wheelock, 1986b).

### Canadian Dropout Rates

The Canadian dropout rate appears higher than that of the United States. Macdonald (1989) reported a dropout rate in Saskatchewan of 31%. Levin (1990), a professor in the University of Manitoba, estimated that 30% to 35% of Canadian students do not finish high school within

the usual 13 years. Radwanski (1987) used three separate sets of statistics in his report to the Ministry of Education to estimate an Ontario dropout rate of 31% to 33%.

Three recent surveys of Canadian youth between the ages of 18 and 24 years accounted for a national dropout rate of 18% (Canadian Teachers' Federation, 1994). These statistics reflected the fact that almost half of all high school dropouts return to school by the age of 20.

Sullivan (1988) reported that dropouts tend to be more frequently found in smaller communities across Ontario. In a Saskatchewan study, Macdonald (1989) reported the highest dropout rate among males in rural schools. This is contrary to American data where students in large urban communities have the highest dropout rate.

### Gender Dropout Rates

The dropout rate is higher for males than for females (Ekstrom et al., 1986; Rumberger, 1987) with males constituting 54% of the dropout population (Morgan, 1984). National studies confirm that American males drop out approximately 2% more frequently than females, but reporting on the statistical significance of these rates is limited.

Frase (1989), in reporting for the National Center for Education Statistics (NCES) on the dropout rates in 1988, cited the status dropout rates for males at 13.5% compared to 12.2% for females; Frase also reported that the event dropout rate from 1986 to 1988 was not statistically significant for males and females. Peng and Takai (1983) using data from the HS&B study reported a 14.7% dropout rate for males and a 12.6% dropout rate for females.

Kaufman et al. (1991) indicated that the 6.8% cohort dropout rate showed no significant difference between the number of males and females dropping out in the NELS:88 study of a cohort of Grade 8 students. Kaufman et al. also reported a 1990 national event dropout rate of 4.1% for males compared to a 4.0% for females, and a 1990 status dropout rate of 12.3% for males compared to 11.8% for females. Both the event and status dropout rates in 1990 were not statistically different from 1989 rates for males and females.

In Ontario for the academic year 1974-75, Watson and McElroy (1976) reported that males represented a higher percentage of the dropout rate (58.1%) as compared to females (41.9%). Quirouette, Saint-Denis, and Huot (1990), in a survey of Grade 9 students in 40 Ontario high schools, found 10% more males were identified as probable school leavers than females. Macdonald (1989) reported that in Saskatchewan more males consistently leave school earlier than females, with males from rural schools having the highest cumulative dropout rate of 38.8%. None of these studies reported on the statistical significance of a gender difference.

#### Race Dropout Rates

Rumberger (1987) reported that the dropout rates were higher for members of racial, ethnic, and language minorities. Frase (1989) reported in her national study that dropout rates were high for minority students and those coming from disadvantaged backgrounds. Using the HS&B 1980 data, Frase (1989) reported that the Native cohort dropout rate was 35% compared to Whites with 15%. Yet the completion rates



for American Indians by 1986 were the lowest for any ethnic group being recorded at one-fourth. Peng and Takai (1983) reported Natives had the highest race/ethnic dropout rates of 29.2% with females exceeding males by 4.6%. Arnold (1985), in developing a profile of the Illinois dropout using sophomores from Illinois who participated in the HS&B study, calculated that the Native dropout rate was 15.2%.

Kaufman et al. (1991) reported an American Indian dropout rate of 9.2% for the NELS:88 eighth grade cohort. The Native dropout rate was within 1% of the Hispanic and Black dropout rates. Unlike the other groups, the difference between the American Indian rate and that for Whites was not statistically significant due to the relatively small sample size of American Indians in the NELS:88 survey.

Kaufman et al. (1992), in a further analysis of the NELS:88 data, reported on the adjusted odds ratios for socioeconomic status, race-ethnicity, and sex for all groups of students performing below basic levels of reading and mathematics and who had dropped out of school. When looking at dropout status, the dropout rate for Native students versus White students was no longer statistically significant. This analysis revealed that within levels of socioeconomic status and sex, Native Americans, Asians, Hispanics, and Blacks when compared to Whites dropped out at similar rates. Wehlage and Rutter (1986) reported similar conclusions when they stated that after controlling for family background race is not a variable that predicts dropout.

Corwin (1978), in reporting for Urban, Rural, Racial Disadvantaged (URRD) program funds in Seattle, cited a Native dropout rate of 19% as compared to the district average of 10.36%. American Indians had the

second smallest ethnic population following Samoans, yet the highest dropout rate for the eight ethnic groups in this study.

Canadian dropout rates for Native students are correspondingly high. Lewington (1994), in an article for the Globe and Mail, reported that in Winnipeg, where Native students account for one-third of the entire school population, approximately 70% of Native students fail to graduate. Moon (1994), in writing for the Globe and Mail about the Mohawks 4 years after the Oka Crisis, reported a school dropout rate of 60% for this community. Lee (1986) reported that in the 1980-81 academic year Native students in Saskatchewan had a dropout rate of 43.2% as compared to non-Native students with a dropout rate of 15%.

No definitive dropout rate can be given for either the United States or Canada. But in terms of the number of young people who dropout the data reveal that the problem is substantial and remains unacceptably high, particularly for some groups (Kaufman et al., 1991). Any dropout rate represents an incalculable loss of human potential and a staggering economic cost to society (Hamby, 1989).

#### School Performance, Suspension, and Dropping Out

The process (of becoming a dropout) is probably cumulative for most youth. It begins with negative messages from the school concerning academic and discipline problems.  
--Wehlage & Rutter, 1986, p. 385

Numerous studies including national ones indicate the correlation between school performance and suspension and their significant relationship to dropping out. Ekstrom et al. (1986), in reporting on who

drops out using 1980/1982 data from the HS&B data, concluded that the critical variables related to dropping out are school performance and the extent of problem behaviors. These researchers found that behavior problems which included discipline problems, and being suspended or put on probation, were statistically significant for dropouts as compared to students who stayed in school. They also reported that one-third of dropouts leave high school because they do not achieve in school and/or they feel alienated from school. Ekstrom and her colleagues believe that it is important to identify potential dropouts when the first behavioral signs (e.g., disciplinary problems, poor grades, poor attendance) are noted.

Poor grades were cited as the number one reason by males, and the second most frequent reason by females, for dropping out in the HS&B data analyzed separately by Ekstrom et al. (1986), Peng (1985), and Peng and Takai (1983). In these three studies, being suspended or expelled was cited as a reason for leaving with males being more than twice as likely as females to drop out for this reason.

Arnold (1985), in identifying behavioral and attitudinal differences between students who became high school dropouts and students who remained in school, interviewed Illinois Sophomores who participated in the HS&B study. As in the national survey, poor grades in school were cited most often by Illinois dropouts as the major reason for leaving school. Being suspended or expelled for the Illinois cohort was a more frequent reason for dropping out among males than females. Eighteen percent of male Illinois dropouts cited suspended/expelled as a reason for dropping out compared to 5% of the female dropouts. Thirty-one

percent of the Illinois sophomores who dropped out reported being suspended or put on school probation. In comparison only 8% of continuing Illinois students reported being suspended or being placed on probation.

Two additional studies where school performance and being suspended/expelled were major reasons for dropping out were an American study conducted by Rumberger (1983) and a Canadian study completed by Sullivan (1988). School performance and being suspended/expelled from high school were both primary school-related reasons for male and female adolescents dropping out of school (Rumberger, 1983). Sullivan (1988) found discipline problems and poor grades were also cited as major reasons for dropping out by males and females. In both of these studies dislike of school was the main reason for dropping out.

### School Performance and Dropping Out

Nothing succeeds like success--and nothing predicts future success better than past success.

--Bachman et al., 1971, p. 58

Poor academic achievement as measured by grades, test scores, and retention are associated with dropping out (Borus & Carpenter, 1984; Ekstrom et al., 1986; Wehlage & Rutter, 1986). As early as 1968, Combs and Cooley, using data from the 1960 ninth grade national longitudinal study, were reporting that dropouts were in the bottom quarter in general academic ability. One-half of the dropouts compared to 28% of the graduates were in the bottom quarter on academic ability.

Bachman et al. (1971), in a national study of 10th grade boys, found that two of the most important predictors of dropping out were

poor classroom grades and being held back. In their national longitudinal study of Grade 10 boys, these researchers estimated that over one-half of the boys with D averages in Grade 9 compared to 2% of A students dropped out. The researchers contended that by the end of Grade 9, academic performance could help a great deal in predicting dropping out or going to college.

Peng and Takai (1983), in reporting on 1980 sophomores in the national HS&B study, indicated that 43% of students who self-reported grades of D's and 19% who reported grades of C's dropped out. This compared to 3% of students who dropped out with A's. Poor grades were the most frequently cited school-related reason for males dropping out and the second most frequently reported reason for females.

Frase (1989), in reporting on the HS&B survey using rates which differed from those previously published, indicated that more than 35% of the cohort students with less than a C average, compared to less than 7% with B averages or better, dropped out of high school. Cohort dropout rates at 31% were twice as high for those who repeated a grade as for students who had not repeated.

Pallas (1987), in reporting for the U.S. Department of Education's Center for Educational Statistics, concluded that poor academic performance is the best predictor of student dropouts. Students with a D average were 5 times more likely to drop out than students with a B average.

Canadian studies have also demonstrated a link between school performance and dropping out. Durward and Ellis (cited in Macdonald, 1989) found in a 1971 study of Vancouver secondary students that

52.8% of early school leavers had a D or F average, while 41.2% had a grade of C. Sullivan (1988) indicated in his Ontario study that an equal number of male and female dropouts reported poor grades as a school related reason for leaving high school. Fifty-three percent of male dropouts and 38% of female dropouts reported an average grade of C or less.

### Retention and Dropping Out

Grade repetition is also a strong predictor of dropping out (Lloyd, 1978; Martinez & Vandegrift, 1991; Stroup & Robins, 1972). Funk (1969) reported that 70% to 90% of dropouts failed one or more times in the primary grades. Bachman et al. (1971) estimated that 40% of their national sample of Grade 10 boys who failed a grade later dropped out, thus making a boy who was held back 4 more times as likely to become a dropout as a boy who had not failed. Stroup and Robins (1972), in a study of elementary predictors of high school dropouts among Black males, found school failure was the most powerful predictor of dropping out among their sample of males born in the early 1930s. Karp (1988), in reporting on the student dropout problem in Ontario secondary schools, indicated that about one third of dropouts reported failing a grade in either elementary or junior high school compared to 7% of high school graduates who failed a grade.

A few research studies have examined the potential causal connection between grade retention and dropping out. Lloyd (1978) concluded that 70% of dropouts could be identified in the third grade. Nonpromotion in the first three grades was a strong indicator of

dropping out. Being overage in Grade 3 and academic achievement (as measured by reading and language scores) were also strong predictors of dropping out. Additional significant variables included global measures of ability, socioeconomic status, and family characteristics.

Grissom and Shepard (1989a), using a structural model to test the effect of grade retention on dropping out while controlling for achievement and other background variables, concluded that there may exist a causal connection between retention and dropping out. The researchers acknowledged that structural models can never prove a causal relationship.

#### Race, Socioeconomic Status, Achievement, and Dropping Out

Kaufman et al. (1992), in their analysis of the characteristics of the NELS:88 data, found that after adjusting for socioeconomic status (SES), race-ethnicity, and sex, the relative risk of students dropping out decreased for students who had repeated grades. These researchers determined that students from low socioeconomic backgrounds, including Native American students, were more likely to be deficient in basic mathematics and reading skills. Native Americans were 187% more likely than White students to fall below the basic proficiency level in reading, and twice as likely to perform below the basic math skill level. Students who had a history of poor academic achievement were more likely to dropout even when controlling for the student's sex, race-ethnicity, and socioeconomic status. Males were no more likely than females to drop out but they were more likely to have low basic skills.

Shepard and Smith (1990) concluded that retention increased the probability of dropping out of school by 20% to 40% even when achievement, SES, and gender were controlled. Grissom and Shepard (1989a) reported that minority children have a 25% to 50% likelihood of dropping out of school prior to graduation. They concluded that being retained in Grade 1 increased the likelihood of dropping out (65% to 100%) for minority children.

In a Toronto student survey, as cited in the Globe and Mail (Lewington, 1995), more than one-third of Aboriginal and Black students were at risk of failing. This was based on their grades in English and mathematics. Bempechat and Ginsburg (1989) cautioned in their report that minority status itself is not a definition of at-risk for school failure.

### Academic Failure

Current research does not support the practice of retaining students (C. T. Holmes, 1983; C. T. Holmes & Matthews, 1984; Smith & Shepard, 1989). Grade repetition though is almost a universal practice in the United States with estimates from one quarter to one third of American students being retained at one time or another (C. T. Holmes, 1989). Shepard and Smith (1990) estimated that 5% to 7% of public school children repeat a grade resulting a cumulative rate of nonpromotion of over 50%. By ninth grade approximately 50% of all American students have flunked at least one grade or are no longer in school. Retention rates (Johnston & Markle, 1986) are highest in the primary grades, particularly Grade 1, and decline throughout the elementary grades; they increase sharply in Grade 7 and peak at Grade 10.



Retention in Grades 7-9 is at least double that of the elementary Grades 4-6 (Safer, 1986b). More boys than girls fail (Funk, 1969). One fifth of elementary age boys are retained at least one year which constitutes more than twice the number of girls retained.

Jackson (1975), in his narrative study on the effects of grade retention, concluded after reviewing all of the available research on academic failure that there was no reliable body of evidence to indicate that grade retention is more beneficial than grade promotion for students with serious academic or adjustment difficulties. Jackson cautioned that his research results should not be interpreted to mean that promotion is better than retention; but rather, research evidence accumulated is so poor that valid inferences could not be drawn concerning the relative benefits of the two options.

C. T. Holmes (1983, 1986, 1989), in three separate studies, pointed to the consistently negative effects of nonpromotion. In addition to these studies, Holmes and Matthews (1984) demonstrated that academic achievement, behavior, personal adjustment (self-concept, social adjustment, and emotional adjustment), attendance, and attitude toward school were more negative for retained students than promoted pupils.

Safer (1986b) found that grade retention is best predicted from elementary grade retention data. Students who were not promoted in elementary school were 5 times more likely to be nonpromoted in Grades 7 and 8 than students who had been promoted with no failures in elementary school. Over five eighths of the students retained in junior

high/middle school had been previously retained in elementary school (Safer, 1986a).

### **Suspension and Dropping Out**

**Suspension raises student concerns about who 'belongs' and who does not.**

**--Wheelock, 1986b, p. 61**

Suspension, expulsion, and/or being put on probation are school-related factors that place students at risk of dropping out. Being suspended or put on probation markedly distinguishes dropouts from stay-ins (Wehlage & Rutter, 1986) with suspension being one school behavior problem positively associated with dropping out (Ekstrom et al., 1986; Rumberger, 1987).

Bachman et al. (1971) found that delinquent behavior was the most powerful predictor of dropping out in their Youth in Transition Study. Dropout rates for Grade 10 boys in this national longitudinal survey were as high as 60% to 65% for boys in the upper ranges of delinquency. Delinquency measures in this study included interpersonal aggression items such as fighting and being suspended or expelled from high school. As the frequency and seriousness of delinquency rose in this self-report study, educational attainment was affected. Rebellious behavior as measured by disruptive behavior in school, breaking rules, or doing poor school work was also a school-related factor in dropping out. Bachman et al. estimated that 45% of boys who engaged in rebellious behavior dropped out compared with less than 7% of boys who reported least rebellious behavior and dropped out.

Ekstrom et al. (1986) found statistical differences between sophomores who dropped out and those who stayed in high school using 1982 data from the HS&B study. Dropouts were significantly more likely than students who stayed in school to have cut classes, had discipline problems, been suspended from school, and had serious trouble with the law.

Pallas (1987), in reporting on U.S. dropouts, noted that students who were rebellious, delinquent, or chronically truant had a higher dropout rate than students who were not. Chronic truants were 40% more likely to dropout, and delinquent students 25% more likely to dropout, compared to sophomores who attended regularly and those who were nondelinquent.

Boston high school dropouts were more than twice as likely to have been suspended the previous year compared to students who stayed in school (Wheelock, 1986b). Of the students who dropped out in 1984-1985, 15.2% had been suspended at least once during the previous year compared to 7.2% of the students who stayed in school (Camayd-Freixas, 1986). Approximately 41% of all suspensions in Boston middle schools were for multiple suspensions with 1 out of every 10 students being suspended annually (Wheelock, 1986b).

### At-Risk Behavior

Kaufman et al. (1992), in analyzing characteristics of at-risk students in the NELS:88 data, found that after adjusting the odds ratios of eighth-grade students who were performing below basic levels of reading and mathematics and who dropped out of school, these students

were sent to the office more frequently for misbehavior than students who never misbehaved. Students who were sent to the office more than twice for misbehavior were 2 times more likely to dropout as compared to those sent to the office once for misbehaving.

In the Phi Delta Kappa Research Study, Frymier et al. (1992) found that twice as many students at risk on one item were usually at risk on each of the other 33 items. When compared to students who were not at risk on an item, 88% of these comparisons were statistically significant at the .001 level. Students who had been suspended were approximately 4 times more likely to have low grades in school, 3 times as likely to have been retained a grade, and almost 5 times as likely to have failed courses as students who were not suspended.

Larson (1989) found that highest risk students for academic failure and dropout could be distinguished from at-risk students on the intensity of unacceptable behavior. These students were more than twice as likely to receive classroom removals and suspensions than at-risk students.

Wu et al. (1982) found that male students were more likely to be suspended than female students. Students were also more likely to be suspended in the first year of high school and in their last year of junior high school. Oppenheimer and Ziegler (1988), in a study based on Toronto suspension rates, found similar results. Grade 9 students were suspended the most frequently with 14-year-old males the most commonly suspended students.

### Suspension and Retention

The Phi Delta Kappa National Research Study collected data on students across the United States and Canada. In the analysis of variables associated with being classified at risk, suspension was the top ranked correlate in predicting Grade 10 nonpromotion in non-large-urban centers (Goll et al., 1989). It was ranked second as the national predictor of Grade 10 nonpromotion as well as second for large urban centers. In this national study of students in Grades 4, 7, and 10, the correlation rose for both suspension and held back/suspension variables for students in Grade 10 as compared to Grade 7.

Safer (1986a), in examining the school folder data over a 10-year period, found that there was a close relationship between junior high school suspension status and junior high school grade retention. Seventy-eight percent of junior high school students suspended more than three times were retained compared to 1% of students who were never suspended but were retained. Having suspensions also prominently increased the risk of repeat nonpromotion.

Safer (1986b) reported that multisuspensions in junior high/middle school were associated with a 52% rate of failure in the year following the suspensions. He also found that as misconduct, grade failure, and absenteeism intensified, these difficulties almost inevitably led to a process whereby vulnerable students either dropped out or were weeded out of the system.

Wheelock (1986b), in her research work on the Boston middle schools, indicated that because of suspension, nonpromotion, and

attendance practices thousands of learning days are lost. Wheelock (1986a, 1986b) proposed the At-Risk Merry-Go-Round model to demonstrate the cycle of student disengagement from school. The merry-go-round consisted of the negative school experiences of repeating a grade, suspensions, and poor attendance/truancy. For at-risk students one negative school experience leads to another until the accumulated negative experiences outweigh the positive school experiences and the students begin to doubt that they belong in school.

Hawkins (1988) confirmed the relationship between suspension and grade repetition. Thirty-four percent of suspendees repeated one grade and 7% repeated at least two grades. In comparison, 19% of nonsuspendees repeated one grade and 2% repeated two grades.

### Multisuspension

In investigating possible warning signs in predicting school suspension using data from the Montgomery Public Schools, Hawkins (1988) found that multiple suspendees were noticeably different from nonsuspendees or students who have been suspended once. Multiple suspendees are more likely to repeat a grade, earn lower grades, miss more school days, and have a higher chance of placement in special education classes. Multiple suspendees received mainly C's and D's whereas nonsuspendees received C's and B's. Hawkins also reported that four of the five suspendee types--fighter, truant, low-achiever, and in-crisis--could be predicted. Episodic, the fifth suspendee behavior, had no distinct pattern.

Safer (1986b) cited from his numerous research studies that the single most accurate predictor of junior high suspension was elementary school suspension. Suspensions occurred at a 12% to 15% rate for junior high/middle school students as compared to a 1% rate at the elementary school level. Multisuspensions were associated with a higher level of maladjustment in junior high/middle schools as compared to elementary school. A year after junior high/middle school suspensions, the resuspension and failing rates were over 50% and the expulsion rate was 29%. Students with a record of repeat suspensions had a 12% to 20% graduation rate.

#### Race and Suspension

Corwin (1978), in analyzing suspensions for the Seattle school district, found that Native students received more than twice the district average number of suspensions. Natives were the second smallest of eight ethnic groups, but they ranked third in the highest percentage of ethnic group suspensions.

Wu et al. (1982) determined that racial bias is a contributing factor in student suspension. Higher minority suspension rates were not simply a matter of more misbehavior or antisocial attitudes. Wu et al. also reported that suspendees were disproportionately composed of low achieving students. In urban junior high schools C students were 6% more likely to be suspended than B students.

### Psychosocial Factors and Dropping Out

Children who fail at school are more likely to fail at life, and children who fail at life are more likely to fail at school.  
--Frymier et al., 1992, p. 23

Data indicate that there are social-psychological characteristics that distinguish dropouts from stay-ins but there are no consistent categories or measures of these variables to sustain any findings (Wehlage & Rutter, 1986). Bachman et al. (1971) found a number of personality and behavior dimensions related to educational attainment. Dropouts had lower self-esteem, needs for self-development, commitment to social values, and feeling of personal efficacy. Dropouts had higher negative affective states and somatic symptoms. Bachman et al. estimated a 30% dropout rate for boys most given to aggressive impulses, a 50% rate for boys who often engaged in rebellious behavior in school, and a 60% to 65% dropout rate among boys most delinquent in school. Kaufman et al. (1992), in a more recent study, found that sophomores who dropped out and were below basic math and reading skills had significant emotional problems.

Ekstrom et al. (1986), using data from the HS&B study, found that dropouts exhibited different school behaviors. Dropouts had lower grades, lower test scores, more school discipline problems, and more suspensions than students who stayed in school. Dropouts also had significantly lower self-esteem as measured by being satisfied with themselves and having much to be proud of. There was no statistical significance between dropouts and stayers on self-esteem items that measured a positive attitude towards themselves.



Ekstrom et al. (1986) indicated that it is important to identify potential dropouts before high school and begin interventions at the first signs of problem behavior (e.g., disciplinary problems, poor grades, and poor attendance). Rumberger (1987) reported that successful dropout programs address the psychological need of the student for someone to care about them as individuals, a need that is often met through counseling.

Fine (1986), in her ethnographic study of a New York high school, described one group of dropouts who had internalized social ideologies about their inabilities and uselessness. These students left high school because they lived surrounded by unemployment and poverty, had experienced failure in school having been held back at least once, felt terrible about themselves, and saw little hope. Crisis was another category of early school leavers. These students left because of family, economic, or social obligations.

#### Psychosocial Factors, Retention, and Suspension

C. T. Holmes (1983) and C. T. Holmes and Matthews (1984), using cumulative research evidence, showed the harmful effects of retention on student adjustment. Retained students scored approximately one-third standard deviation units below promoted peers. Outcome measures included personal adjustment (social adjustment, emotional adjustment, and behavior), self-concept, academic achievement, and attitude toward school.

Yamamoto (1992), in reporting on the results of three studies conducted in 1979, 1984, and 1987, indicated that Grade 4-6 students

rated academic retainment as the third most significant life event next to losing a parent and going blind. Academic retention was more stressful than wetting in class or being caught stealing. Professional opinions, including those of mental health workers and teachers, closely paralleled each other but their views did not correspond with the children's rating of the stressfulness of the experience. The variance overlap between the children's view and the professionals' opinion was approximately 46% with adults underrating the stressfulness of academic failure.

Frymier et al. (1992) found that risk is pervasive and manifests itself in general ways; a student at risk in one area is very likely to be at risk in other areas. For students who had been retained a grade, 1% had attempted suicide, 7% used drugs, 9% used alcohol, and 4% had been abused compared to less than 1%, 2%, 4%, and 2%, respectively, of students who had not been retained a grade. For students who had been suspended, 4% had attempted suicide, 20% used drugs, 25% used alcohol, and 7% had been sexually or physically abused compared to less than 1%, 2%, 3%, and 2%, respectively, of the students who had not been suspended.

Larson (1989) investigated to determine if a subgroup of Grade 6 students could be differentiated prior to high school as at highest risk for secondary school failure and dropout. Her research showed that highest risk students could be distinguished on the intensity of unacceptable behavior. The highest risk group had twice as many removals and suspensions, and statistically significant lower grade averages than the at-risk group. A greater proportion of males (60%) were in the highest

risk group compared to female students (39%). Larson concluded that dropout prevention efforts must enhance both interpersonal/social behavior and task-related behavior. Larson indicated that further research by herself demonstrated that highest risk students can directly benefit from training in self-control and problem-solving skills.

Hawkins's (1988) research on multiple suspendees included investigating different categories of suspendees. Students in-crisis constituted 22% of multiple suspendees. In-crisis suspendees were defined as students unable to adjust to a short- or a long-term crisis in their life. For in-crisis students a significant crisis/event marked the beginning of misbehavior.

Safer (1986b), in examining the stress of secondary school for vulnerable students, found that the best predictor of a behavior in junior high/middle school is its particular antecedent in elementary school. Students who were suspended in elementary school were 13 times more at risk of being suspended in junior high/middle school than students who had not been suspended in elementary school. Elementary students who repeated a grade were 5 times more likely to repeat a grade in junior high/middle school. Behavior-problem students who had twice the risk of grade retention in elementary school were 10 times more likely to repeat junior high/middle school. The heightened difficulties for vulnerable junior high/middle school students included academic difficulties, behavior, self-control, and conduct problems. Impulsive and anxious youths are particularly vulnerable to the transition from elementary school to junior high/middle school.

Garrison et al. (1987) found a negative relationship between school performance and life events. As grades declined life event scores, particularly undesirable life events, increased significantly. The researchers suggested that high levels of stress coupled with limited coping skills could preclude effective school performance.

In studying academic failure and deviance among high school students, Figueira-McDonough (1983) found that there was an inverse relationship between grades and all types of delinquent behavior. This researcher felt that more attention should be paid to the strain of school failure as a motive force of delinquency.

#### Psychosocial Factors and Canadian Adolescents

There are a number of Canadian studies that have investigated the psychosocial factors of adolescents. Quirouette et al. (1990), in an Ontario study conducted to identify probable school leavers, used the "School and Me" questionnaire with Grade 9 students. Feelings of isolation had the highest percentage of the eight factors used to identify potential school dropouts. Relatively the same percentage of males and females (14% versus 16%) identified this factor.

Karp (1988), in reporting on the dropout phenomenon in Ontario secondary schools, indicated that there was little difference between male and female reasons for dropping out other than the higher number of females who leave due to pregnancy. But there were generalized differences between males and females that did not relate directly to dropping out. Females showed consistently lower levels of self-confidence and self-esteem and they tended to be more self-effacing

than males. Researchers in Montreal published four studies on young adolescents at risk for school failure. Teacher identification of students at risk for school failure revealed 23% of female adolescents were identified compared to 77% of male adolescents (Stevens & Pihl, 1982a).

Stevens (1980), Stevens and Pihl (1982a), and Stevens and Pihl (1987) found that junior high school students at risk for school failure differed significantly on measures of self-concept, intelligence, and grades. Though there was a significant difference between grades and intelligence, at-risk students and students not at risk differed more in grades than in ability (Stevens & Pihl, 1982a).

At-risk students were significantly different in age, grades, and coping ability (Stevens, 1980; Stevens & Pihl, 1987). When given coping skills training, the at-risk Grade 7 students improved significantly in their social problem-solving ability (Stevens & Pihl, 1982b). The coping skills program included teaching problem solving skills and dealing with reactions to stress or hassles. These at-risk students also showed improvement in self-concept, but there was no significant improvement in subsequent school grades.

At-risk Grade 7 girls were significantly higher than normal adolescents and at-risk boys on measures of anxiety and they had the lowest coping responses (Stevens & Pihl, 1987). The data indicated a profile of adolescents with high levels of stress-related anxiety who were immobilized by stress-inducing situations at school and who lacked adaptive ways to reduce stress rather than a profile of unconcerned or unmotivated students. Stevens and Pihl found that their study lent support to the hypothesized debilitating effect of failure and that anxiety may play a

crucial role in determining the effect of stress on school performance for at-risk students.

Zarb (1984), in comparing three groups of Grades 9-10 adolescents across combinations of self-perception and past and present school performance variables, found that the failure group was significantly lower than the remedial or control group on family self-concept, attendance, and overall grade percentage. They also had significantly higher elementary school behavior problems. The failure and remedial groups had significantly lower academic self-concepts and lower reading levels than the controls. Twenty-four percent of the failure subjects dropped out compared to 13% for the remedial group. Zarb concluded that school failure was significantly related to emotional difficulties for the failure group as compared to the remedial group.

### The Role of Stress

Stress can lead to teenage "acting out" of psychological conflict, absenteeism, poor grades, dropping out of school, teenage pregnancy, and generally poor preparation for adult life. The most serious cost of stress is the loss of life due to stress-related teenage suicide.

--D'Onofrio & Klesse, 1990, p. 7

There is a significant relationship between stress and emotional/behavioral problems in adolescents and children (Compas, 1987b; Johnson, 1986). Van Oteghen and Forrest (1988) reported that stress resulted in lower grades, fewer constructive coping behaviors, more distress, and lower self-esteem.

Compas, Howell, Phares, Williams, and Giunta (1989) and DuBois, Felner, Brand, Adan, and Evans (1992) determined that adolescents'

reports of stressful events predicted increased emotional/behavioral problems 1 and 2 years later. DuBois et al. (1992) also determined that stresses made a significant contribution to adolescents' school performance. This research study found that adolescents who reported relatively high levels of support from school personnel were the least vulnerable to elevated levels of major stressful events associated with psychological distress which led the authors to conclude that school-based supportive ties may have a buffering effect. Compas, Melcarne, and Fondacaro (1988) found that coping with academic stress was not related to emotional/behavioral problems but coping with social stressors was related.

#### Life Events, Their Measurement, and Adolescents

The period of adolescence is one of rapid growth, change, relocation, and self-discovery, which are defining qualities of stressful experience. In fact, some evidence indicates that middle adolescence is the point in one's life at which the highest number of life changes occur within a given period of time.

--Newcomb, Huba, & Bentler, 1986, p. 280

Though the research literature on adolescents and children is sparse (Johnson, 1986; Newcomb et al., 1986; Swearingen & Cohen, 1985b), life event measures are more and more frequently being used to study adolescent stress (Williams & Uchiyama, 1989). Early adolescence appears to be the period when there is greater vulnerability to stress than middle or late adolescence (Siegel & Brown, 1988) with stressful life events increasing for adolescents between the ages of 11 and 15 years and declining thereafter (Coddington, 1972b).

Life event studies and their impact upon the individual have been fraught with numerous conceptual and methodological problems (Dohrenwend, Dodson, Dohrenwend, & Shrout, 1984; Zimmerman, O'Hara, & Corenthal, 1984). Numerous problematic areas have been identified with Newcomb et al. (1986) identifying four areas of concern: (1) the role of personal control over an event, (2) the confounding or contamination between the life event measures and the outcome variables, (3) the necessity for consistent and reliable measures, and (4) the need for cross validating results. Williams and Uchiyama (1989) identified concerns related to assessment which included: (a) the item content of life event scales, (b) scoring issues including weighing procedures and clustering, (c) recall issues, and (d) the appropriate informant. Compas, Davis, and Forsythe (1985) cautioned that many existing measures of adolescent life events rely on researchers and mental health professionals to elicit test items rather than use an extensive sample of adolescents. The Life Event Questionnaire-Adolescent (LEQ-A) developed by Garnezy et al. (1985) addresses most of these limitations.

Life events can be categorized as negative, positive, or neutral. Negative life events have been used in numerous studies. Newcomb et al. (1986) determined that negative life events were more strongly associated with dysfunction. Negative change was more strongly correlated with measures of anxiety, depression, general maladjustment, and locus of control (Johnson & McCutcheon, 1980). Negative life events increased psychophysiological symptoms in adolescents (Greene, Walker, Hickson, & Thompson, 1985; Walker & Greene, 1987). Negative life events were significantly correlated with the psychological problems



of depression, anxiety, obsessive-compulsiveness, interpersonal sensitivity, and somatization, while positive and neutral events were not (Compas et al., 1986).

Failure to take the distinction into account between desirable and undesirable change is a major limitation of assessing life stress (Johnson & McCutcheon, 1980) as most factors gain discriminative utility when they are differentiated by reported desirability (Newcomb, Huba, & Bentler, 1981). In fact, recent research indicates that undesirable or unpleasant events are largely associated with psychiatric disorder (Rutter, 1983). Thoits (1983) drew similar conclusions when she reported that undesirable events alone attributed to the relationship between life events and psychological disturbance. The LEQ-A addresses these problems by classifying life events as negative, positive, or ambiguous (Garmezy et al., 1985).

Controllability, according to Newcomb et al. (1986), is the moderator between an event and the individual's adaptational response. This differentiated impact between the event and the response has not been fully addressed in the literature (Folkman, 1984) though Lazarus and Folkman (1984) indicated that "most research suggests that appraising an outcome as controllable is stress reducing" (p. 80).

Distinguishing between controllable and uncontrollable life events allows researchers to determine the individual predictive capabilities of each of these life events. Rowlison and Felner (1988) found mixed results in regard to the relative predictive utility of controllable versus uncontrollable major events. Both were equally predictive in four of the six adjustment domains in the study; but for grades and absences, only

controllable negative events were significantly associated with adjustment. Swearingen and Cohen (1985b) found both controllable and uncontrollable negative events were equally predictive of maladjustment.

Masten, Neemann, and Andenas (1994), using the term independence to describe controllability of an event, found that independent events (uncontrollable) had substantially lower correlations with adjustment than nonindependent events (controllable). They concluded that future studies should delineate ways in which independent and dependent life events might contribute to adolescent development.

Towbes, Cohen, and Glyshaw (1989) compared three predictor variables: controllable and uncontrollable negative events and the total negative event score. The controllable negative event analysis was identical to the total negative event one, and no significant interaction resulted using uncontrollable negative events as a predictor variable. In the same study though, the main effects for negative events in the junior high school boys were due to uncontrollable negative events.

The decision of whether to use controllable versus uncontrollable events is a difficult one as "the results of a variety of studies using such measures have been somewhat inconsistent" (Thoits, 1983, p. 60). Dohrenwend et al. (1984) suggested that using uncontrollable event scores would provide a more conservative measure of the relationship between stress and adaptation because there is less risk of confounding measures. Thoits (1983) reported in her review that in several studies uncontrollable events were more strongly associated with psychological disturbance than controllable events but with psychological distress inconsistent findings had been obtained. DuBois et al. (1992) in their

study used only uncontrollable events so as not to confound measures of life stress and adaptation. Meissner (1991) also used negative uncontrollable events to determine that there is significant relationship between these adverse events and increased levels of disturbed conduct.

Both controllable and uncontrollable events are important components of the research on life events. Categorizing life events as a dependent variable on the basis of their controllability represents a promising departure from the more traditional developmental psychopathology paradigms (Cohen, Burt, & Bjorck, 1987). A LEQ-A classifies life events as controllable, uncontrollable, or context dependent (Garmezy et al., 1985).

There are gender differences when it comes to reporting major negative adolescent life events. Wagner and Compas (1990) confirmed that female adolescents at the junior high, senior high, and college levels report more overall negative events than male students. Their research supports the work of Compas et al. (1986) and Swearingen and Cohen (1985a) in indicating that females report more major negative events than males. This research though was not supported by Kessler and McLeod's (1984) study of adults. They reported that research has documented that men and women do not differ significantly in the number of life events that they experience, but women are significantly more effected emotionally than men and they have higher rates of distress.

There is limited research on the differences between race and life event scores. Coddington (1972b), in his classic investigation of 3,500 healthy children, failed to reveal any racial or social class differences.

Garrison et al. (1987) found Blacks reported more major events than White adolescents. Though Black females had the highest total of undesirable life events followed by Black males, the authors concluded that in adolescents a greater number of life events are race, rather than sex, related.

### Distress, Life Events, and Adolescents

The path of an individual's life is marked by thousands of events and occurrences which vary in their magnitude, duration, and the meaning they have for the person. Some . . . are major and involve dramatic levels of change and upheaval. In contrast, many events are minor and may exert relatively little impact on their own. . . . These events serve as stimuli for human development, both facilitating positive growth and adaptation as well as contributing to illness, disturbance, and regression.

--Compas, 1987b, p. 275

There are numerous studies that have established the relationship between psychological distress and negative life events. Towbes et al. (1989) discovered that negative life events were significantly and positively related to depression for junior high school boys and girls as well as senior high school girls, but not for senior high school boys. Swearingen and Cohen (1985a) found negative events were a significant predictor of psychological distress. Swearingen and Cohen (1985b) also determined that in adolescents the number of negative events was positively and significantly correlated with the mental states of depression, anxiety, and trait anxiety, while desirable events had only a significant correlation with depression.

Greene et al. (1985) and Walker and Greene (1987) reported that negative life events increased psychophysiological symptoms in

adolescents. Thoits (1981) indicated that when health related events were controlled, the remaining undesirable events had a small but non-significant effect upon psychophysiological distress. This lent support to her argument that undesirable events and distress may be inflated in previous studies due to the operational confounding of the independent and the dependent variables.

Studies have also confirmed the relationship between the controllability of an event and psychological distress. Goodyer, Kolvin, and Galzanis (1985) determined that the frequencies of negative life events that are outside of a person's control (i.e., negative uncontrollable events) and rated as having a moderate to severe impact, determined between an adolescent psychiatric population and a normal control. Newcomb et al. (1986) found that both uncontrollable and controllable events made significant and independent contributions to psychological distress, but only uncontrollable events made a significant contribution to poor health. While Gersten, Langner, Eisenberg, and Simcha-Fagan (1977) and Swearingen and Cohen (1985a) found both negative life experiences and uncontrollable negative events to be nonsignificant predictors of change in adolescents' psychological distress. Cohen et al. (1987) found that both uncontrollable and controllable negative events were significant cross-sectional predictors of depression, anxiety, and self-esteem, but only controllable negative events were a significant longitudinal predictor.

Females reported more distress than males. D'Arcy and Siddique (1984), in their study among Canadian adolescents, reviewed the results of five studies involving distress as measured by the General Health

Questionnaire (GHQ-30). In four of the five studies higher levels of distress were reported for adolescent females. Similarly, Goldberg and Williams (1988) reported in their book on the GHQ that most studies which show a difference between males and females, female rates are in excess of male rates.

### Coping and Its Relationship to Stress, Distress, and Adolescents

Given that children and adolescents experience a range of disruptive life changes during the process of development . . . and that cumulative changes of this type often appear to be associated with negative outcomes, it seems imperative that we continue to explore the conditions under which these sorts of potential stressors lead to negative outcomes, and the ways we can best help children and adolescents to cope with them.

--Johnson, 1986, p. 12

Coping, at the most general level, includes all responses to stressful events or episodes (Compas, 1987a). Lazarus and Folkman (1984) avoided this broad definition of coping in favor of the transactional model and included the concept of purposeful response. Their definition of coping consists of "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person (Lazarus & Folkman, 1984, p. 141).

The coping efforts of adolescents and children have a powerful effect in moderating the impact of stress with effective coping characterized by flexibility and change (Compas, 1987a). Coping allows the adolescent to tolerate, minimize, accept, or ignore what cannot be mastered (Lazarus & Folkman, 1984). Coping strategies are neither

inherently good or bad, but depend on the match between the strategy and the coping demand (Lazarus & Folkman, 1984). Successful coping styles include dealing directly with the stressor, and employing behavioral and cognitive activities that maintain a sense of well-being and optimism (Holahan & Moos, 1987; McCrae & Costa, 1986). The function of coping, therefore, is to protect the adolescent from any physical or psychological consequences that result from a pile-up of demands (McCubbin, Needle, & Wilson, 1985).

While the concept of coping is intimately tied to that of stress, it has been largely neglected by researchers until recently (Monat & Lazarus, 1991). Baron and Rodin (cited in Monat & Lazarus, 1991) reported that the perceived control of an individual is a potent moderator of the stressor response. Events appraised as negative, uncontrollable, or ambiguous are more stressful than those not appraised as such (Taylor, 1991).

There are relatively few adolescent or child studies on the relationship between coping and psychological distress (Compas, 1987a). Coyne, Aldwin, and Lazarus (1981) and Folkman and Lazarus (cited in Coyne et al., 1981) found depressed people tend to use more coping strategies (regardless of the type) than those who were not depressed. McCrae and Costa (1986) in their study of adults suggested that coping efforts are useful in solving specific problems thereby reducing distress temporarily, if not permanently.

Researchers have found that coping measures aimed at specific populations experiencing specific stressors are more useful than general coping measures (Taylor, 1991). There are numerous studies which

detail the coping strategies in adolescents. Brown, O'Keefe, Sanders, and Baker (1986) indicated that positive self-talk and attention diversion were the most common strategies reported among adolescents. Spivack and Shure (cited in Compas, 1987a) argued that the dysfunctional coping strategies of daydreaming, fantasizing, and attempting to avoid or escape problems, were used to deal with interpersonal problems.

Garfinkel, Hoberman, Parsons, and Walker's study (cited in Meissner, 1986) determined that adolescents responded to stress by engaging in activities that provided relaxation, self-initiative, or emotional support from others. They found least popular coping behaviors included talking with teachers, counselors, the clergy, mental health professionals, or fathers; while talking with one's mother was ranked 31st of the 54 coping strategies by adolescents. Garnezy (1983), on the other hand, found supportive relationships with parents and/or adults outside of the family were resources for adolescents coping with stress.

Gender differences affect coping. Stark, Spirito, Williams, and Guevremont (1989) determined that males most frequently cited problems with school, parents, friends, and girlfriends; while for females the order of the most frequently reported problems were parents, followed by boyfriends, friends, and school. Males reported using wishful thinking more often than females and they perceived resignation to be more effective than females. Females reported using social support more frequently than males. The authors concluded that when examining common problems in adolescence consideration should be given to gender.



Frydenberg and Lewis (1991) found clear gender differences between coping styles in children. Girls use more seeking social support and they focus on relationships. In addition, they use more wishful thinking and hoping for the best. There was no difference for gender in the level of problem-solving coping which is contrary to the work of Patterson and McCubbin (1983).

### Summary

The review of the literature was interpreted to suggest that the examination of recent stress (as measured by the frequency of discrete negative uncontrollable life events), distress, and coping orientation, in male and female adolescents who had either been suspended/threatened with suspension, or reported academic failure, would provide valuable information for educational leadership. In addition, comparing Native and non-Native at risk for suspension and academic failure rates would assist educational leaders in determining programs for Native students.

Though the definition of the term dropout and the calculation of the dropout rate may vary (Hammack, 1986; Morrow, 1986), any dropout rate represents an incalculable loss of human potential and a staggering economic cost to society (Hamby, 1989). Dropouts have lower grades, more discipline problems, and lower self-esteem (Ekstrom et al., 1986). Potential dropouts also express greater feelings of isolation (Quirouette et al., 1990).

School performance and behavior problems that result in suspension are critical variables related to dropout (Ekstrom et al., 1986; Rumberger, 1987; Sullivan, 1988). Adolescents who have been

suspended or failed are likely to be at risk in other areas with higher rates for attempted suicide and the use of drugs and alcohol (Frymier et al., 1992). An inverse relationship exists between academic achievement and all types of delinquent behavior (Figueira-McDonough, 1983), and academic achievement and undesirable life events (Garrison et al., 1987).

Students who have been retained a grade have lower levels of personal adjustment, a lower self-concept, and a poorer attitude toward school (C. T. Holmes, 1983; C. T. Holmes & Matthew, 1984). Adolescents at risk for school failure are different in their coping ability and age than students not at risk (Stevens, 1980; Stevens & Pihl, 1987); yet at-risk adolescents show improvement in their self-concept when given coping skill training (Stevens & Pihl, 1982b).

Gender differences impact on both dropping out and psychosocial factors. Dropout rates tend to be higher among males (Ekstrom et al., 1986; Rumberger, 1987) with males constituting 54% of the dropout population (Morgan, 1984). However, Kaufman et al. (1991) found no significant difference in the gender dropout rates of a Grade 8 cohort.

Male dropouts have lower self-esteem, needs for self-development, commitment to social values, and feeling of personal efficacy than males who do not dropout (Bachman et al., 1971). Yet female dropouts tend to be more self-effacing and have lower levels of self-confidence and self-esteem and more emotional problems than male dropouts (Karp, 1988). Females at risk for academic failure have higher levels of anxiety and lower coping skills than either normal adolescents or at risk adolescent males (Stevens & Pihl, 1987).

There is a significant relationship between stress and emotional/behavioral problems in adolescents (Compas, 1987b; Johnson, 1986). Compas et al. (1989) and DuBois et al. (1992) found that adolescents' reports of stressful events increased emotional/behavioral problems more than a year later. Stress can lead to adolescent acting out, poor grades, and dropping out (D'Onofrio & Klesse, 1990). Stress results in lower grades, fewer constructive coping behaviors, more distress, and lower self-esteem (Van Oteghen & Forrest, 1988). Adolescents who receive high levels of support from school personnel are the least vulnerable to elevated levels of major stressful events associated with psychological distress (DuBois et al., 1992).

There are only a handful of studies which include Native dropout rates as a separate category. Native dropout rates are higher than other ethnic groups (Arnold, 1985; Corwin, 1978; Frase, 1989; Peng & Takai, 1983) or they aren't significant due to sampling size (Kaufman et al., 1991). Race is not a factor in some studies of dropping out when socio-economic factors are considered (Kaufman et al., 1992; Wehlage & Rutter, 1986). More research information is needed on Native dropouts for educational leaders to fund intervention or counseling programs that address this issue.

Life event measures are more and more frequently being used to study adolescent stress (Williams & Uchiyama, 1989). Gender issues (Wagner & Compas, 1990), types of undesirable or desirable change (Johnson & McCutcheon, 1980), and controllability (Cohen et al., 1987) are concerns in measuring life events. Though there have been conceptual and methodological problems in life event studies (Dohrenwend et

al., 1984) the Life Event Questionnaire developed by Garmezy et al. (1985) addresses most of the concerns in the literature.

Negative life events are a significant predictor of psychological distress (Swearingen & Cohen, 1985a). There is also evidence to indicate a relationship exists between controllability of an event and psychological distress. Newcomb et al. (1986) found uncontrollable and controllable events made significant and independent contributions to poor health. D'Arcy and Siddique (1984) and Goldberg and Williams (1988), in examining studies that used the GHQ-30, reported that adolescent females report more psychological distress than males.

There are relatively few studies on the relationship between psychological distress and coping (Compas, 1987a). Stark et al. (1989) indicated that there are gender differences in adolescent coping. Frydenberg and Lewis (1991), Garfinkel et al. (cited in Meissner, 1991), and Stark et al. (1989) reported on coping differences in male and female adolescents.

Johnson (1986) commented on the need to explore conditions under which stressors lead to negative outcomes in adolescents and children. To that end, male and female adolescents at risk for suspension and academic failure were examined in terms of stress, distress, and coping styles. Chapter III presents the research design and the methodology for this study. The survey, subjects, procedures, and research instruments are detailed next. Analysis of the data and synthesis of the research findings are then presented in Chapters IV and V.

## **CHAPTER III**

### **METHODOLOGY**

**This dissertation study examined stress related differences between male and female adolescents who reported recent suspension/ threats of suspension or academic failure compared to students who did not report these two variables of dropping out. Stress related differences included the degree of discrete negative uncontrollable life events experienced, the levels of distress, and the types of coping skills used. Native and non-Native at risk for suspension and academic failure rates were also analyzed.**

**This chapter details the methodology of the study and includes the research questions, the subjects, the survey, and the procedures. Permission to use the study for research purposes and research study approvals are presented. Discussion of the three research instruments used in this study follows.**

#### **Research Questions**

**The research questions examined in this study compared adolescents who are at risk for suspension or academic failure with their peers who were not at risk for suspension or academic failure. Comparisons were made relative to levels of stress, distress, and coping ability. Native and non-Native at risk for suspension and academic failure rates were also compared.**

The following hypotheses in operational form are based on the research questions identified in Chapter I and the review of the literature in Chapter II.

1. There is a relationship between the frequency of Native and non-Native rates of suspension/threats of suspension.

2. There is a difference between the frequency of Native and non-Native rates of academic failure.

3. There is a difference between male and female adolescents who are at risk for suspension or academic failure compared to male and female adolescents who are not at risk for suspension or academic failure in the reporting of discrete negative uncontrollable life events (discrete adverse events), a conservative measure of stress.

4. There is a difference between male and female adolescents who are at risk for suspension or academic failure compared to male and female adolescents who are not at risk for suspension or academic failure in their levels of psychological distress.

5. There is a difference between male and female adolescents who are at risk for suspension or academic failure compared to male and female adolescents who are not at risk for suspension or academic failure in their coping measures.

### **Subjects in the Study**

Subjects in this self-report research study were adolescent students who attended high school in two communities in rural Northern Ontario. The municipalities had populations of 3,500 and 13,000 people, and in both communities the high school population contained students

from outlying areas. These schools, which provide education to students in the transition to specialization years, comprise all of the English speaking public and separate schools (Catholic) within both communities. Participation was voluntary and included approximately one-half of the students in Grade 9 to Ontario Academic Credits (OAC).

There was a total of 714 high school students consisting of 360 males and 354 females. The number of students by grade and gender included: Grade 9, 129 males and 111 females; Grade 10, 75 males and 75 females; Grade 11, 82 males and 93 females; Grade 12, 63 males and 64 females; and the remaining 22 students were in Ontario Academic Credits (OAC), Cooperative Education Programs, or other special programs. Native students represented 5.13% of the high school population. Due to the large size of the sample, the study's findings can be generalized to adolescents attending English-speaking rural high schools.

### Survey

Archival data were used in this dissertation study. The survey was the second of a three-phase survey to obtain information from adolescents on the kinds of difficulties that they were experiencing. It was designed by the local level of a provincial government funded children's mental health service to determine the service needs for adolescents living in the rural areas of the eastern part of the Algoma District in Northern Ontario, Canada. The survey consisted of six sections: (1) general information; (2) the Life Events Questionnaire-Adolescent Form (LEQ-A) and an additional section with questions concerning drugs, alcohol, and physical, sexual, and emotional abuse; (3) the

Adolescent Coping Orientation for Problem Experiences (A-COPE); (4) the General Health Questionnaire (GHQ-30); (5) a section which addressed the issues of community mental health services; and (6) parent unemployment.

The three dependent variables stress, distress, and coping came from Sections 2, 4, and 3, respectively, on the community mental health questionnaire. The independent variables at risk for suspension and academic failure were Questions 32 and 30 on the LEQ-A. Gender was identified by Question 2 in the general information in Part 1 of the survey. Native and non-Native comparisons were analyzed from the cultural background question also identified in the general information. The survey, though designed to determine local needs, can be generalized to rural communities as the three published research instruments--the LEQ-A, the GHQ-30, and the A-COPE--were used in this dissertation study.

### Procedures

The question of reducing the dropout rate is of great importance to educational leaders. In reviewing the literature on dropping out, suspension and academic failure were identified as two major variables. Through discussion with colleagues it was learned that a local mental health agency had administered in June 1990 the second part of a three part questionnaire to identify the service needs of adolescent students. Perusal of the survey revealed the inclusion of two questions that affected dropping out and a question identifying cultural background. The survey provided a unique opportunity to address the question of



dropping out (as measured by at risk for suspension and academic failure) as well as provide data to analyze differences between Native and non-Native at risk for suspension and academic failure rates.

Local agency professionals met with high school teachers willing to conduct the survey. They explained and answered questions regarding the administration of the survey. The teachers distributed, supervised, and collected the surveys which required approximately 45 minutes of class time to complete. Students were advised of the confidentiality of the survey and that their participation was voluntary. Following the administration of this survey agency counselors were available to answer questions from teachers and students.

### Research Study Approvals

Approval to use the Stress and Coping-II Survey for educational research purposes was requested (Appendix A). Permission to use the data was granted by the executive director of the local agency, Algoma Child and Youth Services (Appendix B).

This dissertation study meets the ethical standards of the Graduate College Guidelines of Western Michigan University and conforms to the ethical standards of the National Research Act of 1974. The Human Subjects Institutional Review Board of Western Michigan approved this research project under the exempt category (Appendix C).

### Research Instruments

The research instruments used in this post hoc study formed part of a community survey on adolescents who were attending school. The

survey measurement tools were presented to adolescents in the following order: the Life Events Questionnaire-Adolescent Form (Garmezy et al., 1985), the Adolescent Coping Orientation for Problem Experiences (Patterson & McCubbin, 1983), and the General Health Questionnaire-the 30 item version developed by Goldberg (cited in D'Arcy & Siddique, 1984).

#### Life Events Questionnaire-Adolescent Form (LEQ-A)

The Life Events Questionnaire-Adolescent Form (LEQ-A) is a research instrument developed by Garmezy et al. (1985) for Project Competence at the University of Minnesota. It contains 67 statements of events which may or may not have happened recently to an adolescent or an adolescent's family. It has been most recently used by Masten et al. (1994) in a study of adolescent adjustment.

Life event studies have been fraught with numerous conceptual and methodological problems (Dohrenwend et al., 1984; Zimmerman et al., 1984) and numerous problematic areas have been identified (Newcomb et al., 1986; Williams & Uchiyama, 1989). Garmezy, Masten, and Tellegen (1987) addressed these problems in the LEQ-A by including items that must satisfy at least one of the following criteria: (a) common to most life event questionnaires, (b) distinct stressors/negative life events, (c) relevant to adolescents and their families, and (d) clear meaning.

"The goal of the LEQ-A was to create a concise but comprehensive sampling of life experiences widely viewed as significant for adolescents" (Masten et al., 1994, p. 77).

The LEQ-A classifies life events by onset (discreteness of onset, or chronicity). Discrete life events occur at a fixed point in time, while chronicity refers to those adverse life events that index an ongoing situation. Swearingen and Cohen (1985a) reported that life experiences traditionally entail measurement of discrete life events during a specific period of time (usually 6 months or a year). The LEQ-A requires the subject to decide if a life event occurred during the past year.

The LEQ-A distinguishes between life events that are categorized in the literature as positive and socially desirable, negative and socially undesirable, or ambiguous. There is a large body of research which justifies distinguishing between life events for numerous life event studies have reported the relationship between undesirable events and psychological distress (Gersten, Langner, Eisenberg, & Orzek, 1974; Vinokur & Selzer, 1975) and the impact of negative events on both mental and physical health (Dohrenwend & Dohrenwend, 1981; Siegel & Brown, 1988). Greene et al. (1985) and Walker and Greene (1987) used negative life events in their studies of adolescents as negative life events were more useful in discriminating emotional or behavioral problems.

The LEQ-A includes the dimension of controllability with life events being classified as controllable, uncontrollable, or context dependent. Context dependent refers to items that are neither within nor outside of an adolescent's control. Research studies support the use of controllable and uncontrollable events (Cohen et al., 1987; Dohrenwend et al., 1984; Newcomb et al., 1986; Rowlison & Felner, 1988; Swearingen & Cohen, 1985b).

The LEQ-A is scored using an unweighted yes/no dichotomy. It does not use life change units or readjustment weights as developed by R. Holmes and Rahe (1967) and Coddington (1972a, 1972b), nor adolescent self-impact rates of an event as developed by Swearingen and Cohen (1985a). Support for the use of unit weights as used in the LEQ-A is extensive.

Kale and Stenmark (1983) found that unweighted life event scores based on a total count of items were nearly equivalent to complex weighted scores. Johnson and McCutcheon (1980) found that weighting events was of little consequence. Newcomb et al. (1981) determined a simple summation method produced smoother scale distributions, and unit weights permitted more effective cross-validation and replication. Rowlison and Felner (1988) determined simple frequency scores were better predictors of adjustment than were self-rated impact scores.

The LEQ-A has content validity which is demonstrated through the development of a wide range of stressors and the large quantity of questions. The LEQ-A with 67 life questions contains more events than other adolescent measures, including Johnson and McCutcheon (1980) with 46 items, Newcomb et al. (1981) with 39 items, and Swearingen and Cohen (1985b) with 39 items.

Masten et al. (1994) and Meissner (1991) have demonstrated the importance of using life events on the LEQ-A that include onset, desirability, and controllability. The category discrete negative uncontrollable events, a conservative measure of stress, which is found in the LEQ-A, was used in this dissertation study to refer to events that (a) have a discrete onset in time, (b) are perceived as undesirable by the person

reporting them, and (c) are clearly not in the control of the individual and thus are not confounded by the individual's level of competence (do not depend on the student's behavior) or intelligence. Throughout this dissertation study the term discrete adverse events was used as a shorter term to describe the LEQ-A category of discrete negative uncontrollable events.

### General Health Questionnaire (GHQ-30)

The General Health Questionnaire (GHQ) devised by Goldberg (1972) is a self-administered screening instrument to assist in the detecting and estimating of nonpsychotic psychiatric illness (Finlay-Jones & Murphy, 1979). It has been translated into 38 languages and used in numerous studies conducted in a variety of ways and settings. The GHQ identifies psychologically distressed persons in a wide variety of cultures and languages (Goldberg & Williams, 1988). The GHQ-30 is a shorter version of the original 60-item questionnaire.

The GHQ measures two major classes of phenomena. It measures the inability to continue to carry out one's normal healthy functions and the appearance of new phenomena of a distressing nature (Goldberg & Hillier, 1979). Questionnaire items cover the areas of depression, anxiety, social performance, and somatic complaints though the GHQ subscale scores do not significantly identify subjects with different types of disorders (Cleary, Goldberg, Kessler, & Nyez, 1982). The questionnaire concentrates on transitory fluctuations in mental well-being and does not detect conditions of long-standing (Goldberg & Williams, 1988; Layton, 1986). The GHQ scores can be regarded as a measure of severity of

psychological disorder (Goldberg & Williams, 1988). It can be used as a screening instrument and as continuum showing different levels of psychological distress (D'Arcy & Siddique, 1984). In large scale studies a validated unidimensional mental health illness severity scale can provide useful information (Cleary et al., 1982). Vieweg and Hedlund (1983) expressed surprise that the GHQ has not been used more as a screening tool for research subjects.

The General Health Questionnaire has been used in clinical and community settings. Studies which validate the GHQ-30 as a reliable screening tool for psychological distress include Goldberg (1972); Goldberg, Rickels, Downing, and Hesbacher (1976); and Tennant (1977). Community setting studies include (a) Finlay-Jones and Murphy (1979); (b) Henderson, Duncan-Jones, Byrne, and Adock (1979); and (c) Tarnopolsky, Hand, McLean, Roberts, and Wiggins (1979). D'Arcy and Siddique (1984), Shek (1989), and Banks (1983) validated the use of the GHQ-30 in young community samples.

The GHQ possesses high content validity as each test item selected used three calibration groups--normal, mildly ill, and severely ill respondents (Goldberg & Williams, 1988). It was not intended to measure predictive validity as the GHQ measures changes in state as self-reported by respondents over the last few weeks.

The GHQ can be scored by the binary method or, as in this dissertation study, by using a simple Likert scale. The correlation between the GHQ score using the Likert and the binary scoring method is very high at 0.9 (Banks, 1983). Banks et al. (1980) concluded that the Likert method might be preferable in that it is likely to produce a wider and less skewed

distribution of scores more appropriate for correlational analysis and intergroup comparisons based on parametric statistics.

The GHQ-30 is a valid and reliable instrument having been used in over 50 validity studies. The split-half reliability for the GHQ-30 ranges from +0.77 (Shek, cited in Goldberg & Williams, 1988) to +0.92 (Goldberg, 1972). The internal consistency of the GHQ-30 ranges in values of 0.85 (Chan & Chan, 1983) to 0.93 (Keyes, 1984) with a mean value of 0.87 for five research studies (Goldberg & Williams, 1988).

The GHQ-30 has high reliability with respect to internal consistency. Four studies involving students in Hong Kong and England indicated alpha coefficients ranging from +0.84 to +0.93 (Goldberg & Williams, 1988). DePaulo and Folstein (1978), in a study involving clinical patients, had a GHQ-30 test-retest reliability of 0.85.

The GHQ-30 has a sensitivity of 86% and a specificity of 77% (Goldberg et al., 1976; Goldberg & Williams, 1988). Cleary et al. (1982) though after adjusting for sampling bias reported a sensitivity of 82.3% and a specificity of 81.7%.

The GHQ-30 works best as a screening test and functions better with men than women and with Whites than Blacks. It is not affected by social class nor age of the respondent (Goldberg et al., 1976).

The GHQ-30 has been used in survey research to measure the determinants of having a high score within a particular population. Farmer and Markus (1986) found that teenagers with high GHQ scores were more likely to have parents with marital difficulties and maternal psychiatric history. D'Arcy and Siddique (1984), in examining psychological distress among Canadian adolescents, found that the nature and the

quality of the family life affected adolescent mental health. They found females exhibited higher levels of distress than adolescent males and there existed an inverse association between psychological distress and scholastic marks. Students with average marks of less than 50% experienced greater psychological distress than students who received passing grades.

This dissertation study used the General Health Questionnaire-30 items (GHQ-30) designed by Goldberg (cited in D'Arcy & Siddique, 1984) to measure distress in male and female adolescents who reported being at risk for suspension or academic failure compared to their peers who did not report at risk for suspension or academic failure. The composite score of the GHQ-30 was selected as identified in the literature.

#### Adolescent Coping Orientation for Problem Experiences (A-COPE)

Coping skills were assessed using the Adolescent Coping Orientation for Problem Experiences (A-COPE) developed by Patterson and McCubbin (1983) for the Family Stress Coping Health Project at the University of Wisconsin. A-COPE was designed to record the behaviors that adolescents might find helpful in managing problem or difficult situations which happen to adolescents or members of their families. It is a self-reporting coping inventory which can be used in pre-post assessment programs and for adolescent intervention programs (Patterson & McCubbin, 1987).

Coping was defined by the authors as any individual or group behavior used to manage hardships and relieve the discomfort associated



with life changes or difficult life events (Patterson & McCubbin, 1983). The definition was based on family stress theory and is the first coping instrument to conceptualize and measure adolescent coping from a family perspective (Patterson & McCubbin, 1987).

Three separate samples of adolescents were involved in the construction, development, and validity testing of A-COPE (Patterson & McCubbin, 1987). Approximately 1,200 junior and senior Caucasian high school students of predominantly middle to high socioeconomic status were used in the development of A-COPE. A-COPE has been used in studies to compare adolescent coping for Black and White adolescents. A-COPE is a self-report questionnaire with 54 specific coping behaviors which adolescents may use to manage, change, and adapt to stressful situations (Jorgensen & Dusek, 1990). Reliability was assessed using the 54 coping behaviors on 12 loading factors which accounted for 60% of the variance of the original correlation matrix. Coefficients for these scales ranged from .50 to .76 with a median of .72 (Jorgensen & Dusek, 1990). The adolescent coping score was calculated by summing the respondents' scores which were weighted in the same direction.

The 12 subscale labels included: (1) Engaging in Demanding Activity (e.g., working hard on schoolwork or exercising for self-improvement), (2) Developing Self-Reliance and Optimism (e.g., being more organized or in charge of the situation), (3) Developing Social Support (e.g., helping others solve their problems, talking to a friend, or crying), (4) Seeking Diversions (e.g., reading, going shopping, playing video games), (5) Solving Family Problems (e.g., talking to a parent about problems, doing things with the family), (6) Seeking Spiritual

Support (e.g., praying, talking to the clergy), (7) Investing in Close Friendships (e.g., being with a girlfriend or a boyfriend), (8) Being Humorous (e.g., keeping a sense of humor, trying to be funny), (9) Seeking Professional Support (e.g., getting counseling), (10) Relaxing (e.g., listening to music, riding around in a car, or daydreaming), (11) Ventilating Feelings (e.g., swearing, letting off steam, or getting angry), and (12) Avoiding Problems (e.g., using drugs, drinking alcohol, telling oneself problems aren't important, or staying away from home as much as possible).

Gender differences were recorded in the development of A-COPE. Females reported a more frequent use of a broader range of coping patterns than males scoring higher on 8 of the 12 coping patterns (Patterson & McCubbin, 1987). Females had significantly higher mean scores in developing social support, solving family problems, investing in close friends, and developing self-reliance. Males had a significantly higher mean score for the coping pattern of being humorous. The relative ranking of the coping patterns for males and females were quite similar. For both genders relaxing was the coping pattern most frequently used, while seeking support from a counselor or teacher and avoiding problems were the least frequent coping patterns. Doing things that are demanding and ventilation of feeling were rated nearly the same by both males and females. While seeking spiritual support and seeking diversions were ranked fifth and sixth by males and sixth and ninth by females, respectively.

A-COPE provides support for the concept that coping is multidimensional and not unidimensional (Patterson & McCubbin, 1987).

The researchers concluded that adolescent coping behavior could be validly assessed through multiple demands and coping need not be considered stressor specific.

This dissertation study used the Adolescent Coping Orientation for Problem Experiences (A-COPE) developed by Patterson and McCubbin (1983). Each of the 12 coping areas (including the total A-COPE score) was used to identify differences in coping styles of male and female adolescents at risk for suspension and academic failure compared to their peers who are not at risk on these two variables of dropping out of school.

### Summary

Three research tools--the LEQ-A, the GHQ-30, and the A-COPE--were used to measure levels of stress, distress, and coping orientation, respectively, for adolescents who were at risk of dropping out of school as identified by the variables at risk for suspension and academic failure. Male and female adolescents at risk for suspension or academic failure were compared to male and female adolescents not at risk for suspension or failure. Native and non-Native at risk for suspension and academic failure rates were also compared.

This descriptive research study utilized archival data from a community health survey of 714 adolescents attending English-speaking high schools. The survey was conducted in June 1990 by teachers who volunteered to give the questionnaire to students in Grades 9 to OAC. Nearly one-half of the high school students (360 males and 354 females) responded to the survey. This study can be generalized to

English-speaking students attending rural high schools.

Permissions and approvals to use this archival data as a dissertation study were detailed along with the research design. The operational hypotheses resulting from the research questions and the review of the literature were developed.

Chapter IV presents the data for each of the five hypotheses. The first two hypotheses are reported in frequency and percentages. The remaining hypotheses present the direction of significant differences. Synthesis of the research findings, including conclusions and recommendations, are presented in Chapter V.

## CHAPTER IV

### PRESENTATION OF DATA

The purpose of this study was to examine two variables of dropping out of school--suspension and academic failure--in terms of stress related differences. Male and female adolescents at risk for suspension or academic failure were compared to their peers who did not report being at risk for suspension or academic failure. Stress related differences included the discrete adverse events experienced (discrete negative uncontrollable events on the LEQ-A), the level of psychological distress (GHQ-30), and the types of coping skills used (A-COPE). Native and non-Native at risk for suspension and academic failure rates were also compared.

#### Research Design and Methodology

Archival data from a community mental health survey of 714 adolescents attending high school in two Northern Ontario communities provided information for this descriptive research study. Teachers in the two high schools volunteered to administer the survey to classes from Grades 9 to OAC. Approximately one-half of the high school students, 360 males and 354 females, provided the data for this study on students at risk for suspension and academic failure. Due to the large sampling size, this study can be generalized to adolescents attending English-speaking rural high schools.

The research design consisted of chi squares for independent proportions to test for Native and non-Native at risk for suspension and academic failure rates (Hypotheses 1 and 2) and analyses of variance for the three measures of stress (Hypotheses 3 to 5).

To determine stress related differences, analyses of variance were conducted on the discrete negative uncontrollable events on the LEQ-A (discrete adverse events), the GHQ-30, and each of the 12 A-COPE factors including the total (Appendix D, Table 13). These dependent variables were analyzed by sex, suspension, and academic failure.

In addition, one-way analyses of variance (ANOVAs) were performed to identify differences within the categories at risk for suspension and academic failure, as well as to report on the homogeneity of variance. Homogeneity of variance for the significant one-way ANOVAs are listed in Appendix D, Table 14. When the homogeneity of variance was violated for the significant one-way ANOVAs ( $p < .05$ ), the Kruskal-Wallis was performed (Appendix D, Table 15). In all cases where the Kruskal-Wallis, a nonparametric test, was conducted the results were significant ( $p < .05$ ).

One-way ANOVAs were also performed for gender on the dependent variables--stress, distress, and coping. Males who were at risk for suspension or academic failure were compared to males who were not at risk for suspension or academic failure. Similarly, females were compared to females for differences on the variables at risk for suspension and academic failure.

The hypotheses for this dissertation study included:

1. There is a relationship between the frequency of Native and non-Native rates of suspension/threats of suspension.

2. There is a relationship between the frequency of Native and non-Native rates of academic failure.

3. There is a difference between male and female adolescents who are at risk for suspension or academic failure compared to male and female adolescents who are not at risk for suspension or academic failure in the reporting of discrete negative uncontrollable life events (discrete adverse events), a conservative measure of stress.

4. There is a difference between male and female adolescents who are at risk for suspension or academic failure compared to male and female adolescents who are not at risk for suspension or academic failure in their levels of psychological distress.

5. There is a difference between male and female adolescents who are at risk for suspension or academic failure compared to male and female adolescents who are not at risk for suspension or academic failure in their coping measures.

Data for the five hypotheses are presented next, beginning with the comparison of Native and non-Native at risk for suspension rates. This is followed by a discussion of the academic failure rates. Three tables are included that report on the frequencies and percentages of the differences between Native and non-Native at risk for suspension and academic failure rates.

Hypotheses 3 and 4 are then presented for male and female adolescents at risk for suspension and academic failure compared to their peers who were not at risk for suspension and academic failure on

the stress and distress measures. Tables are presented that show the results of the one-way ANOVAs for at risk for suspension and academic failure, as well as gender differences for the appropriate dependent variable.

Discussion of these two hypotheses is centered on the significant results presented in tables. Where the one-way ANOVA for the GHQ-30 revealed differences for academic failure, but the analysis of variance for that variable was not significant, the one-way ANOVA was rejected. This was done to eliminate the chance of a false positive error.

The remaining hypothesis on coping styles follows. Significant differences in coping styles for at risk for suspension or academic failure are tabled in the chapter. Hypothesis 5.9, A-COPE-9, is rejected to eliminate the chance of a false positive. It is included in this chapter. Appendix E lists the coping styles where there were no significant differences for at risk for suspension or academic failure.

The presentation of data ends with a summary of the hypotheses. Only those portions of the five hypotheses that were significant are reviewed.

### Hypothesis 1

The hypothesis that the observed frequency of suspension or threats of suspension would be different from the expected frequency of suspension or threats of suspension for Native and non-Native adolescents was supported. A chi-square test for independent proportions was used to test this hypothesis with an alpha level of .05.



There was a significant difference between Native and non-Native rates of at risk for suspension. Table 1 indicates that 36% of Native students reported being suspended/threatened with suspension during the past year compared to 15% of non-Native adolescents.

Table 1  
At Risk for Suspension: Percentage of  
Native and Non-Native

Group	No suspension		Suspension		$\chi^2$	p
	n	%	n	%		
Native	23	63.9	13	36.1	9.78	.002
Non-Native	567	85.0	100	15.0		

Note. df = 1. Number of missing observations = 14.

There was also a significant difference in the at risk for suspension rates within the category Native. The rates for Native males at risk for suspension were highly significant when compared to the rates for non-Native males. Female rates for academic failure indicated a trend. Though not significant, Native females reported greater at risk for suspension than non-Native females (Table 2).

## Hypothesis 2

The hypothesis that the observed frequency of academic failure would be different from the expected frequency of academic failure for Native and non-Native adolescents was supported. A chi-square test for

Table 2  
At Risk for Suspension: Percentage of  
Native and Non-Native by Gender

Group	No suspension		Suspension		$\chi^2$	p
	n	%	n	%		
Native male	11	57.9	8	42.1	4.57	.033
Non-Native male	268	81.0	63	19.0		
Native female	12	70.6	5	29.4	3.76	.052
Non-Native female	297	89.2	36	10.8		

Note. df = 1. Number of missing observations, male = 10, female = 14.

independent proportions was used to test this hypothesis with an alpha level of .05.

There was a significant difference between Native and non-Native academic failure rates. Table 3 indicates that 19% of Native students reported recent academic failure compared to 8% for non-Native students. Though Native students reported a significantly higher level of academic failure, the numbers were not sufficient to allow analysis of sex differences.

### Hypothesis 3

It was hypothesized that the frequency of discrete negative uncontrollable life events on the LEQ-A, a conservative measure of

Table 3  
Academic Failure: Percentage of Native and Non-Native

Group	No failure		Academic failure		$\chi^2$	p
	n	%	n	%		
Native	29	80.6	7	19.4	4.03	.045
Non-Native	612	91.8	55	8.2		

Note. df = 1. Number of missing observations = 14.

stress, would be greater for male and female adolescents who had recently been at risk for suspension or academic failure than their peers who were not at risk on these two variables of dropping out of school. Analysis of variance and one-way ANOVAs were used to test this hypothesis with an alpha level of .05.

Hypothesis 3 was supported for at risk for suspension and academic failure (Table 4). There was no significant difference for sex on the discrete adverse events on the LEQ-A ( $F = .12$ ,  $p = .73$ ).

Male and female adolescents at risk for suspension were significantly different from males ( $F = 10.94$ ,  $p = .00$ ) and females ( $F = 25.87$ ,  $p = .00$ ) not at risk for suspension. At risk male and female adolescents reported more discrete adverse life events (negative uncontrollable events on the LEQ-A) than adolescents not at risk for suspension.

Male and female adolescents who reported academic failure were also significantly different from males ( $F = 5.78$ ,  $p = .02$ ) and females

**Table 4**  
**Means and Standard Deviations on the Discrete Adverse**  
**Life Events for Suspension, Academic Failure, and Sex**

Category	Sex	No. of cases	Mean	<u>SD</u>	<u>F</u> ratio	Sig. *
Suspension	M	74	2.03	2.15	10.94	.001
No suspension	M	281	1.34	1.42		
Suspension	F	42	2.55	1.88	25.87	.000
No suspension	F	306	1.38	1.32		
Fail	M	41	2.05	1.83	5.78	.017
No fail	M	314	1.41	1.57		
Fail	F	23	2.26	1.86	6.59	.011
No fail	F	325	1.46	1.40		
LEQ x sex	M	356	1.48	1.62	0.12	7.32
LEQ x sex	F	348	1.52	1.45		

\*Significant at the .05 level.

( $F = 6.59$ ,  $p = .01$ ) who did not report recent academic failure. Male and female adolescents who had failed reported more discrete adverse events than adolescents who did not report academic failure.

#### Hypothesis 4

It was hypothesized that the levels of psychological distress would be greater for male and female adolescents who were at risk for

suspension or academic failure than male or female adolescents who were not at risk for suspension or academic failure. Analysis of variance and one-way ANOVAs were used to test this hypothesis with an alpha level of .05.

Hypothesis 4 was supported for at risk for suspension but rejected for academic failure (Table 5). There was a significant difference for sex ( $F = 35.59$ ,  $p = .00$ ) on the GHQ-30.

Table 5  
Means and Standard Deviations on the General Health  
Questionnaire-30 for Suspension,  
Academic Failure, and Sex

Category	Sex	No. of cases	Mean	<u>SD</u>	<u>F</u> ratio	Sig.*
Suspension	M	73	27.33	13.79	14.75	.000
No suspension	M	281	21.28	11.47		
Suspension	F	42	32.64	15.37	4.39	.037
No suspension	F	309	27.85	13.71		
Fail	M	40	21.93	12.14	7.07	.008
No fail	M	314	27.33	11.85		
Fail	F	23	31.00	15.80	0.84	.361
No fail	F	328	28.24	13.86		
GHQ x sex	M	354	22.53	12.21	35.59	.000
GHQ x sex	F	352	28.42	13.97		

\*Significant at the .05 level.

There was a significant difference for male and female adolescents at risk for suspension compared to males ( $F = 14.75$ ,  $p = .00$ ) and females ( $F = 4.39$ ,  $p = .04$ ) not at risk for suspension. Adolescents at risk for suspension reported higher levels of psychological distress than male and female adolescents not at risk. Both categories of females (at risk and not at risk) reported higher levels of distress than male adolescents.

The one-way ANOVA for psychological distress on the GHQ-30 indicated that there was a significant difference for males ( $F = 7.07$ ,  $p = .01$ ) who reported academic failure when compared to males who did not report academic failure. The hypothesis was rejected as the main effects of the analysis of variance for sex-by-academic failure-by-suspension was not significant for academic failure and the GHQ-30 (Appendix D, Table 13).

### Hypothesis 5

It was hypothesized that there would be differences in coping mechanisms for male and female adolescents who were at risk for suspension or academic failure when compared to adolescents who were not at risk for suspension or academic failure. Analyses of variance and one-way ANOVAs were used to test each of the 12 A-COPE factors and the total on the A-COPE. These hypotheses (5.1 to 5.13) were tested with an alpha of .05.

Hypothesis 5.1, Ventilating Feelings, was supported for at risk for suspension but not supported for academic failure (Table 6). There was no significant difference for sex ( $F = .03$ ,  $p = .85$ ) on A-COPE-1.

Table 6

Means and Standard Deviations for A-COPE-1 on the Adolescent Coping Orientation for Problem Experiences for Suspension, Academic Failure, and Sex

Category	Sex	No. of cases	Mean	<u>SD</u>	<u>F</u> ratio	Sig. *
Suspension	M	70	18.73	1.93	6.47	.011
No suspension	M	268	17.90	2.53		
Suspension	F	42	18.95	2.88	4.52	.026
No suspension	F	293	17.99	2.57		
Fail	M	40	17.93	2.19	0.17	.681
No fail	M	298	18.09	2.47		
Fail	F	22	17.73	2.96	0.49	4.83
No fail	F	313	18.13	2.60		
A-COPE-1 x sex	M	338	18.07	2.44	0.03	.853
A-COPE-1 x sex	F	336	18.11	2.62		

\*Significant at the .05 level.

Male and female adolescents at risk for suspension were significantly different from male ( $F = 6.47$ ,  $p = .01$ ) and female adolescents ( $F = 4.52$ ,  $p = .03$ ) not at risk for suspension. At risk male and female adolescents ventilated their feelings more than adolescents not at risk for suspension. Ventilating Feelings included six behaviors: getting angry, blaming others, being sarcastic, saying mean things, swearing,

and complaining.

Hypothesis 5.2, Seeking Diversions, was not supported for at risk for suspension or academic failure (Appendix E, Table 16). There was no significant difference for sex ( $F = .05$ ,  $p = .83$ ) on A-COPE-2. Seeking Diversions included eight activities, such as, reading, going to movies, shopping, using drugs, and playing video games.

Hypothesis 5.3, Developing Self-Reliance, was not supported for at risk for suspension or academic failure (Appendix E, Table 17). There was no significant difference for sex ( $F = 1.37$ ,  $p = .24$ ) on A-COPE-3. Developing Self-Reliance contained six statements which included trying to deal with problems, organizing one's life, working hard, making decisions, and thinking of good things in life.

Hypothesis 5.4, Developing Social Support, was not supported for at risk for suspension or academic failure (Appendix E, Table 18). There was a significant difference for sex ( $F = 164.01$ ,  $p = .00$ ) and A-COPE-4. Developing Social Support included six statements concerning helping others who have problems, talking to friends about feelings, crying, keeping friendships, saying nice things, and apologizing.

Hypothesis 5.5, Solving Family Problems, was not supported for at risk for suspension or academic failure (Appendix E, Table 19). There was a significant difference for sex ( $F = 10.50$ ,  $p = .00$ ) on A-COPE-5. Solving Family Problems included six items dealing with talking, reasoning, and doing things with a member(s) of the family.

Hypothesis 5.6, Avoiding Problems, was partially supported for at risk for suspension and academic failure (Table 7). There was no significant difference for sex ( $F = 3.50$ ,  $p = .06$ ) on A-COPE-6.



Table 7

Means and Standard Deviations for A-COPE-6 on the Adolescent Coping Orientation for Problem Experiences for Suspension, Academic Failure, and Sex

Category	Sex	No. of cases	Mean	<u>SD</u>	<u>F</u> ratio	Sig.*
Suspension	M	69	17.12	3.08	2.66	.104
No suspension	M	270	17.65	2.22		
Suspension	F	42	15.74	2.75	17.24	.000
No suspension	F	301	17.39	2.36		
Fail	M	36	17.44	3.58	0.06	.803
No fail	M	303	17.55	2.41		
Fail	F	22	15.05	2.55	18.60	.000
No fail	F	321	17.33	2.39		
A-COPE-6 x sex	M	346	17.54	2.42	3.50	.062
A-COPE-6 x sex	F	344	17.19	2.46		

\*Significant at the .05 level.

There was a significant difference for females at risk for suspension ( $F = 17.24$ ,  $p = .00$ ) compared to females not at risk for suspension in Avoiding Problems. At-risk females avoided significantly more problems (i.e., reported less use of drugs, etc.) than females not at risk for suspension. Avoiding Problems included five statements about the use of drugs, liquor, and cigarettes, as well as staying away from home

and telling oneself the problem is not important.

There was also a significant difference for females who reported recent academic failure ( $F = 18.60$ ,  $p = .00$ ), when compared to their peers in Avoiding Problems. As with suspension, at-risk females reported significantly less use of drugs and alcohol, smoking, avoiding home, and telling themselves the problem is not important than females who did not report failing. At-risk males also reported fewer Avoiding Problems than males not at risk for suspension or academic failure, but these differences were not significant.

Hypothesis 5.7, Seeking Spiritual Support, was partially supported for suspension and not supported for academic failure (Table 8). There was a significant difference for sex on A-COPE-7 ( $F = 6.34$ ,  $p = .01$ ).

There was a difference for females at risk for suspension ( $F = 8.09$ ,  $p = .01$ ) when compared to females not at risk for suspension in Seeking Spiritual Support. At-risk females reported seeking less spiritual support than females who were not at risk. Seeking Spiritual Support involved going to church, praying, and talking to a person of the clergy.

Hypothesis 5.8, Investing in Close Friends, was partially supported for at risk for suspension and not supported for academic failure (Table 9). There was a significant difference for sex ( $F = 38.74$ ,  $p = .00$ ) on A-COPE-8.

There was a significant difference for females at risk for suspension ( $F = 4.90$ ,  $p = .03$ ) compared to females not at risk for suspension. At-risk females reported significantly more Investing in Close

Friends. Investing in Close Friends included being close to someone you cared about and being with a boyfriend or a girlfriend.

Table 8

Means and Standard Deviations for A-COPE-7 on the Adolescent Coping Orientation for Problem Experiences for Suspension, Academic Failure, and Sex

Category	Sex	No. of cases	Mean	<u>SD</u>	<u>F</u> ratio	Sig. *
Suspension	M	72	5.07	2.61	11.17	.280
No suspension	M	275	5.43	2.52		
Suspension	F	40	4.75	2.01	8.09	.005
No suspension	F	304	5.98	2.63		
Fail	M	40	4.88	2.27	1.64	.202
No fail	M	307	5.42	2.57		
Fail	F	22	5.00	2.31	2.45	.119
No fail	F	322	5.89	2.60		
A-COPE-7 x sex	M	348	5.36	2.54	6.34	.012
A-COPE-7 x sex	F	345	5.86	2.62		

\*Significant at the .05 level.

Hypothesis 5.9, Seeking Professional Support, was not supported for suspension and rejected for academic failure (Table 10). There was a significant difference for sex ( $F = 7.25$ ,  $p = .01$ ) on A-COPE-9.

Table 9

Means and Standard Deviations for A-COPE-8 on the Adolescent  
Coping Orientation for Problem Experiences for  
Suspension, Academic Failure, and Sex

Category	Sex	No. of cases	Mean	<u>SD</u>	<u>F</u> ratio	Sig.*
Suspension	M	70	6.51	2.19	0.39	.535
No suspension	M	276	6.32	2.33		
Suspension	F	42	8.07	1.89	4.90	.028
No suspension	F	306	7.31	2.11		
Fail	M	40	5.90	2.35	1.81	.179
No fail	M	306	6.42	2.30		
Fail	F	23	8.00	2.24	2.00	.159
No fail	F	325	7.36	2.08		
A-COPE-8 x sex	M	347	6.37	2.31	38.74	.000
A-COPE-8 x sex	F	349	7.40	2.09		

\*Significant at the .05 level.

The one-way ANOVA for A-COPE-9 indicated that there was a significant difference for females ( $F = 5.59$ ,  $p = .02$ ) who reported academic failure compared to females who did not report academic failure. The hypothesis was rejected as the analysis of variance for Seeking Professional Support (sex-by academic failure-by-suspension) was not significant for academic failure and A-COPE-9 (Appendix D,

Table 10

Means and Standard Deviations for A-COPE-9 on the Adolescent Coping Orientation for Problem Experiences for Suspension, Academic Failure, and Sex

Category	Sex	No. of cases	Mean	<u>SD</u>	<u>F</u> ratio	Sig. *
Suspension	M	72	2.96	1.46	0.12	.728
No suspension	M	275	2.89	1.36		
Suspension	F	41	3.66	1.98	3.76	.053
No suspension	F	304	3.15	1.51		
Fail	M	39	3.03	1.37	0.32	.573
No fail	M	308	2.89	1.39		
Fail	F	23	3.96	2.23	5.59	.019
No fail	F	322	3.16	1.51		
A-COPE-9 x sex	M	348	2.91	1.38	7.25	.007
A-COPE-9 x sex	F	346	3.21	1.58		

\*Significant at the .05 level.

Table 13). Seeking Professional Support involved getting professional support and talking to a teacher or counselor at school.

Hypothesis 5.10, Engaging in Demanding Activity, was supported for at risk for suspension and partially supported for academic failure (Table 11). There was no significant difference for sex on A-COPE-10 ( $F = 1.98$ ,  $p = .16$ ).

Table 11

Means and Standard Deviations for A-COPE-10 on the Adolescent Coping Orientation for Problem Experiences for Suspension, Academic Failure, and Sex

Category	Sex	No. of cases	Mean	<u>SD</u>	<u>F</u> ratio	Sig. *
Suspension	M	69	11.62	3.41	8.98	.003
No suspension	M	271	13.06	3.58		
Suspension	F	41	11.00	3.54	7.83	.005
No suspension	F	303	12.58	3.38		
Fail	M	37	11.16	3.64	8.47	.004
No fail	M	303	12.96	3.54		
Fail	F	22	11.59	3.74	1.29	2.57
No fail	F	322	12.45	3.41		
A-COPE-10 x sex	M	341	12.78	3.59	1.98	.160
A-COPE-10 x sex	F	345	12.40	3.43		

\*Significant at the .05 level.

There was a significant difference for males ( $F = 8.98$ ,  $p = .00$ ) and females ( $F = 7.83$ ,  $p = .01$ ) at risk for suspension when compared to their peers who were not at risk for suspension. Male and female adolescents at risk for suspension reported less Engaging in Demanding Activity than adolescents not at risk.

There was a significant difference for males ( $F = 8.47$ ,  $p = .00$ ) who reported academic failure when compared to males who did not report academic failure on A-COPE-10. Males who had failed reported engaging in significantly less demanding activity than males who did not report academic failure. Engaging in Demanding Activity included four statements about strenuous physical activity, school involvement, improving oneself (physically and academically), and working hard on schoolwork.

Hypothesis 5.11, Being Humorous, was not supported for at risk for suspension or academic failure (Appendix E, Table 20). There was a significant difference for sex ( $F = 13.10$ ,  $p = .00$ ) on A-COPE-11. Being Humorous included trying to make light of things and keeping a sense of humor.

Hypothesis 5.12, Relaxing, was partially supported for at risk for suspension and not supported for academic failure (Table 12). There was a significant difference for sex ( $F = 17.26$ ,  $p = .00$ ) on A-COPE-12.

There was a significant difference for males ( $F = 4.78$ ,  $p = .03$ ) at risk for suspension when compared to males not at risk for suspension. At-risk males reported significantly more Relaxing than males not at risk. At-risk females reported more Relaxing than females not at risk but the difference was not significant. Relaxing included daydreaming, listening to music, eating food, and riding around in the car.

Hypothesis 5.13, A-COPE-Total, was not supported for at risk for suspension or academic failure (Appendix E, Table 21). There was a

Table 12

Means and Standard Deviations for A-COPE-12 on the Adolescent  
Coping Orientation for Problem Experiences for  
Suspension, Academic Failure, and Sex

Category	Sex	No. of cases	Mean	<u>SD</u>	<u>F</u> ratio	Sig.*
Suspension	M	69	13.06	2.28	4.78	.030
No suspension	M	273	12.41	2.18		
Suspension	F	42	13.64	1.81	1.90	.170
No suspension	F	301	13.17	2.14		
Fail	M	39	12.82	2.23	0.70	.402
No fail	M	303	12.51	2.21		
Fail	F	22	13.64	2.61	0.90	.344
No fail	F	321	13.20	2.07		
A-COPE-12 x sex	M	343	12.53	2.21	17.26	.000
A-COPE-12 x sex	F	344	13.22	2.10		

\*Significant at the .05 level.

significant difference for sex ( $F = 16.22$ ,  $p = .00$ ) on the A-COPE-Total.

### Summary

The purpose of this study was to examine two variables of dropping out of school--suspension and academic failure--in terms of stress



related differences. Male and female adolescents at risk for suspension or academic failure were compared to their peers who did not report being at risk for suspension or academic failure. Stress related differences included the discrete adverse events (discrete negative uncontrollable life events experienced on the LEQ-A), the types of coping skills used (A-COPE), and the levels of psychological distress (GHQ-30). Native and non-Native rates for suspension and academic failure were also compared.

Analysis of the data revealed support, or partial support, for the majority of the hypotheses. The first two hypotheses which indicated that Native adolescents would be at greater risk for suspension or academic failure compared to non-Native adolescents was supported. Native males reported a significantly greater frequency of at risk for suspension than non-Native males. The difference for females indicated a trend but it was not significant. There were insufficient cell counts to calculate gender differences for academic failure.

The hypothesis that the frequency of discrete negative uncontrollable life events on the LEQ-A would be greater for male and female adolescents who had recently been at risk for suspension or academic failure compared to their peers who were not at risk for suspension or academic failure was supported. There was no significant difference for gender on the LEQ-A.

The hypothesis that the levels of psychological distress would be greater for male and female adolescents who were at risk for suspension or academic failure than male or female adolescents who were not at risk for suspension or academic failure was supported for suspension

but rejected for academic failure. There was a significant difference for sex on the GHQ-30.

The hypothesis that there would be differences in coping mechanisms on the A-COPE scale for male and female adolescents who were at risk for suspension or academic failure when compared to adolescents who were not at risk for suspension or academic failure was partially supported for at risk for suspension and academic failure.

Male adolescents at risk for suspension reported significantly less Engaging in Demanding Activity (A-COPE-10) and significantly more Ventilating Feelings (A-COPE-1) and Relaxing (A-COPE-12) than males not at risk for suspension. Female adolescents at risk for suspension reported significantly less Seeking Spiritual Support (A-COPE-7), Avoiding Problems (A-COPE-6), and Engaging in Demanding Activity. They reported significantly more Ventilating Feelings and Investing in Close Friends (A-COPE-8) than females not at risk for suspension.

Only two A-COPE factors were partially significant for students who reported academic failure compared to students who did not report academic failure. Males who reported academic failure reported significantly less Engaging in Demanding Activity than males who did not report academic failure. Females who experienced academic failure reported significantly more Avoiding Problems than females who did not report failing. Females who had failed recently reported less Seeking Spiritual Support (A-COPE-9) but this was rejected. There were significant differences for gender on A-COPE-4 to the A-COPE-Total score (with the exception of A-COPE-6 and A-COPE-10).

**Chapter V focuses on the discussion, conclusions, and the recommendations for the hypotheses that were significant. It begins with a summary of the research design.**

## **CHAPTER V**

### **SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS**

The purpose of this study was to examine the stress related differences between male and female adolescents who reported being at risk for suspension or academic failure compared to their peers. Stress related differences included the discrete adverse events experienced (discrete negative uncontrollable life events on the LEQ-A), the level of psychological distress (GHQ-30), and the types of coping skills used (A-COPE). Native and non-Native at risk for suspension and academic failure rates were also compared.

The chapter begins with a summary of the research design including the five hypotheses. Discussion of the hypotheses, or portions of the hypotheses, where significant differences occurred are deliberated next. The discussion begins with the comparison of Native and non-Native at risk for suspension rates (Hypothesis 1) and continues with the comparison of Native and non-Native rates for academic failure (Hypothesis 2). The discussion then moves to significant stress and distress results (Hypotheses 3 and 4, respectively) beginning with suspension and followed by academic failure. Each of the significant 12 coping styles is then reviewed for at risk for suspension and academic failure (Hypothesis 5). Conclusions and recommendations end the chapter.

### Summary of the Research Design

Three hundred and sixty male and 354 female adolescents were the subjects in this study of at-risk students. Archival survey data from students who were attending Grade 9 to OAC in two Northern Ontario community high schools provided the research information for this descriptive study. Classroom teachers administered the community mental health survey in June 1990 which was designed to determine the counseling services required for the adolescents. Nearly one-half of the high school student population completed the questionnaire which included the three research tools and the cultural question used in this study.

Native and non-Native at risk for suspension and academic failure rates were compared using chi squares for independent proportions. Adolescents at risk for suspension or academic failure were compared to their peers by analysis of variance and one-way ANOVAs on the three measures of stress--the discrete adverse events on the LEQ-A, the GHQ-30, and each of the 12 A-COPE factors including the total. One-way ANOVAs were also conducted to determine significant differences for gender. An alpha level of .05 was used throughout this study.

Where homogeneity of variance was not significant, the Kruskal-Wallis, a nonparametric test, was performed. In all cases where the homogeneity of variance was violated, the Kruskal-Wallis was significant (Appendix D, Table 15).

The hypotheses for this study included:

1. There is a relationship between the frequency of Native and non-Native rates of suspension/threats of suspension.

2. There is a difference between the frequency of Native and non-Native rates of academic failure.

3. There is a relationship between male and female adolescents who are at risk for suspension or academic failure, compared to male and female adolescents who are not at risk for suspension or academic failure in the reporting of discrete negative uncontrollable life events (discrete adverse events), a conservative measure of stress.

4. There is a difference between male and female adolescents who are at risk for suspension or academic failure compared to male and female adolescents who are not at risk for suspension or academic failure in their levels of psychological distress.

5. There is a difference between male and female adolescents who are at risk for suspension or academic failure compared to male and female adolescents who are not at risk for suspension or academic failure in their coping measures.

Discussion of the five hypotheses are presented next, beginning with the comparison of Native and non-Native at risk for suspension rates.

## Discussion

### Hypothesis 1

The hypothesis that the observed frequency of suspension or threats of suspension would be different from the expected frequency of

suspension or threats of suspension for Native and non-Native adolescents was supported. Native adolescents were significantly more at risk for suspension ( $\chi^2 = 9.78$ ,  $p = .00$ ) than non-Native students.

This study supports the research of Corwin (1978) and Wu et al. (1982). Corwin found that Native students received twice the district average number of suspensions. Wu et al. determined that racial bias is a contributing factor in student suspensions.

There was a significant difference in at risk for suspension rates between Native males ( $\chi^2 = 4.57$ ,  $p = .03$ ) and non-Native males. Of Native males, 42.1% reported being at risk for suspension compared to 19.0% of non-Native adolescents. Native males were at greater risk for suspension than Native females or non-Native adolescents.

Native female at risk for suspension rates indicated a trend ( $\chi^2 = 3.76$ ,  $p = .05$ ) when compared to non-Native females at risk for suspension. Of the native females, 29.4% reported being at risk for suspension compared to 10.8% of the non-Native females.

Various researchers have reported that dropout rates are higher for racial, ethnic, or language minorities (Arnold, 1985; Corwin, 1978; Frase, 1989; Lee, 1986; Lewington, 1994; Moon, 1994; Peng & Takai, 1983; Rumberger, 1987). Since suspension is a major reason of dropping out of school (Bachman et al., 1971; Camayd-Freixas, 1986; Ekstrom et al., 1986; Pallas, 1987; Rumberger, 1987; Wehlage & Rutter, 1986; Wheelock, 1986b), then this study provides additional support for the theory that Native students are at greater risk than non-Native adolescents. Native adolescents are particularly vulnerable to dropping out as they have the highest race/ethnic dropout rates (Corwin,

1978; Frase, 1989; Peng & Takai, 1983). Oppenheimer and Ziegler (1988) reported there are no statistics for Canadian suspensions according to race or ethnicity.

### Hypothesis 2

The hypothesis that the observed frequency of academic failure would be different from the expected frequency of academic failure for Native and non-Native adolescents was supported. Native adolescents reported significantly greater academic failure ( $\chi^2 = 4.03$ ,  $p = .05$ ) than non-Native students. The numbers were not sufficient though to allow analysis of sex differences.

Of Native adolescents, 19.4% reported recent academic failure as compared to 8.2% of non-Native adolescents. Researchers have reported that dropout rates are higher for racial, ethnic, or language minorities (Arnold, 1985; Corwin, 1978; Frase, 1989; Lee, 1986; Lewington, 1994; Moon, 1994; Peng & Takai, 1983; Rumberger, 1987). Since academic achievement (Bachman et al., 1971; Borus & Carpenter, 1984; Combs & Cooley, 1968; Ekstrom et al., 1986; Frase, 1989; Goll et al., 1989; Pallas, 1987; Peng & Takai, 1983; Sullivan, 1988; Wehlage & Rutter, 1986) and academic failure (Bachman et al., 1971; Lloyd, 1978; Martinez & Vandegrift, 1991; Stroup & Robins, 1972) are major reasons for dropping out of school, then this study provides additional support for the theory that Native students are at greater risk than non-Native adolescents.



### Hypothesis 3

The hypothesis that stress (discrete negative uncontrollable life events) would be greater for male and female adolescents who were at risk for suspension or academic failure compared to their peers who were not at risk of suspension or academic failure was supported.

The percentage of the adolescents reported being at risk for suspension was 16.39%. Males reported more at risk for suspension (20.56%) than females (11.86%). These results confirm the work of Hawkins (1988), Oppenheimer and Ziegler (1988), and Wu et al. (1982), who reported that suspension is more prevalent among males than females.

These rates of suspension appear to be higher than average. Wu et al. (1982) reported a suspension rate of 11% using a national survey, Wheelock (1986b) reported that 10% of students are suspended annually in Boston, and Safer (1986a) reported suspension occurs at a 12% to 15% rate in junior high school and middle school. The difference may have occurred due to the fact that adolescents reported at risk for suspension (suspension/threats of suspension) as opposed to actually being suspended:

There was a significant difference between male and female adolescents who reported being at risk for suspension compared to male and female adolescents who did not report being at risk for suspension. Males who were at risk for suspension reported more discrete adverse life events ( $F = 10.94$ ,  $p = .00$ ) than males who were not at risk for suspension. Similarly, females who were at risk for suspension reported

more stress ( $F = 25.87$ ,  $p = .00$ ) than females who were not at risk for suspension.

Females who were at risk for suspension ( $M = 2.55$ ,  $SD = 1.88$ ) reported the greatest amount of stress. They were followed by males at risk for suspension ( $M = 2.03$ ,  $SD = 2.15$ ), females not at risk for suspension ( $M = 1.38$ ,  $SD = 1.32$ ), and males not at risk for suspension ( $M = 1.34$ ,  $SD = 1.42$ ).

Though males experience higher rates of suspension than females (Hawkins, 1988; Oppenheimer & Ziegler 1988; Wu et al., 1982), adolescent females report more negative events than male adolescents (Compas et al., 1986; Swearingen & Cohen, 1985a; Wagner & Compas, 1990). This dissertation study identified female adolescents at risk for suspension as having greater levels of stress than male adolescents at risk for suspension or male and female adolescents not at risk. This finding is strengthened as there was no significant difference for gender on the reporting of negative life events in this study ( $F = .12$ ,  $p = .73$ ).

This research study supports the work of Compas et al. (1988) and Johnson (1986). These authors noted that there is a significant relationship between stress and emotional/behavioral problems in adolescents and children.

The percentage of the adolescents who reported recent academic failure was 8.96%. Males reported more academic failure (11.39%) than females (6.50%). These results confirm the report by Funk (1969) that more males than females fail. These data also support the work of Larson (1989), who determined that a greater proportion of Grade 6 males were in the highest risk group for secondary school failure and

dropping out.

There were significant differences in the number of discrete adverse life events for male and female adolescents who reported recent academic failure compared to male and female adolescents who did not report failure. Males who failed reported more discrete negative uncontrollable events ( $F = 5.78$ ,  $p = .017$ ) than males who did not fail. Similarly, females who failed reported more stress ( $F = 6.59$ ,  $p = .01$ ) than females who did not fail.

Females who reported recent academic failure experienced the most discrete adverse life events ( $M = 2.26$ ,  $SD = 1.86$ ). They were followed by males who reported academic failure ( $M = 2.05$ ,  $SD = 1.83$ ), females who reported no academic failure ( $M = 1.46$ ,  $SD = 1.40$ ), and males who reported no academic failure ( $M = 1.41$ ,  $SD = 1.57$ ). As with levels of stress among students who were at risk for suspension compared to students who were not at risk, females again reported higher levels of stress compared to males in the same categories.

This study lends support to the work of Stevens and Pihl (1987). These researchers found that both male and female students at risk for school failure differed significantly on measures of anxiety and self-concept from normal classmates. A vulnerable subgroup of females scored significantly higher on anxiety and had the lowest coping responses.

This study also confirms the work of Garrison et al. (1987) who found a negative relationship between school performance and life events. As grades declined life event scores, particularly undesirable life

events, increased significantly.

When comparing the number of discrete negative uncontrollable life events experienced by adolescents at risk for suspension with academic failure, at risk for suspension resulted in greater stress for females ( $M = 2.55$ ,  $SD = 1.88$ ) than academic failure ( $M = 2.26$ ,  $SD = 1.86$ ). For males, at risk for suspension ( $M = 2.03$ ,  $SD = 2.15$ ) resulted in approximately the same amount of stress as academic failure ( $M = 2.05$ ,  $SD = 1.83$ ). For females, at risk for suspension indicates that tremendous recent stress has occurred in their lives.

This study lends support to the connection between stress and dropping out. D'Onofrio and Klesse (1990) reported that stress can lead to poor grades and dropping out of school. Fine (1986), in her ethnographic study, found that dropouts who had experienced failure in school felt terrible about themselves and saw little hope. A significant reason for dropping out of school in her study also included crisis. In addition, Kaufman et al. (1992) found that sophomores who dropped out and were below in basic math and reading skills had significant emotional problems. Stevens and Pihl (1982a) indicated that emotional problems figure more prominently in female dropouts than males.

#### Hypothesis 4

It was hypothesized that the levels of psychological distress would be greater for male and female adolescents who were at risk for suspension or academic failure than their male or female peers who were not at risk for suspension or academic failure. This hypothesis was supported for suspension and rejected for academic failure.

Males ( $F = 14.75$ ,  $p = .00$ ) and females ( $F = 4.39$ ,  $p = .04$ ) at risk for suspension were significantly different from male and female adolescents not at risk for suspension. Females at risk for suspension reported significantly more distress ( $M = 32.64$ ,  $SD = 15.37$ ) than females who were not at risk for suspension ( $M = 27.85$ ,  $SD = 13.71$ ). Males at risk for suspension reported significantly more distress ( $M = 27.33$ ,  $SD = 13.79$ ) than males who did not report being at risk for suspension ( $M = 21.28$ ,  $SD = 11.47$ ).

Numerous studies support gender differences for psychological distress on the GHQ-30. This study confirms the reviews by D'Arcy and Siddique (1984) and Goldberg and Williams (1988) that adolescent females report higher levels of distress than adolescent males.

This study also supports the numerous studies which have established a relationship between psychological distress and negative life events such as suspension. Swearingen and Cohen (1985a) determined that negative events were a significant predictor of psychological distress. Swearingen and Cohen (1985b) also found that the number of negative events was positively and significantly correlated with depression and anxiety in adolescents. Towbes et al. (1989) determined that negative life events were positively related to depression in junior high school boys and girls and senior high school girls.

In addition, this study lends support to studies which show the relationship between dropping out and psychological problems. Bachman et al. (1971) determined that dropouts had higher negative affective states and somatic symptoms. Kaufman et al. (1992) found that dropouts had significant emotional problems.

### Hypothesis 5

It was hypothesized that there would be differences between male and female adolescents who were at risk for suspension or academic failure compared to male and female adolescents not at risk for suspension or academic failure in the types of coping skills used. Of the 12 coping skills on the A-COPE, there was a significant difference for suspension on A-COPE-1, A-COPE-6, A-COPE-7, A-COPE-8, A-COPE-10, and A-COPE-12.

A-COPE-1, Ventilating Feelings, was supported for at risk for suspension. There were significant differences for males ( $F = 6.47$ ,  $p = .01$ ) and females at risk for suspension ( $F = 4.52$ ,  $p = .03$ ) compared to males and females not at risk for suspension.

Females at risk for suspension reported the most Ventilating Feelings ( $M = 18.95$ ,  $SD = 2.88$ ) which included behaviors such as getting angry, blaming others, being sarcastic, saying mean things, swearing, and complaining. They were followed by males at risk ( $M = 18.73$ ,  $SD = 1.93$ ), females not at risk ( $M = 17.99$ ,  $SD = 2.57$ ), and males not at risk for suspension ( $M = 17.90$ ,  $SD = 2.53$ ). This was in spite of the fact that there was no significant difference for gender on Ventilating Feelings ( $F = .03$ ,  $p = .85$ ).

The coping strategy Ventilating Feelings used by at-risk adolescents may be a source of strain. McCubbin et al. (1985) reported that adolescents may adopt a coping behavior which may propel them into other stressful circumstances. Use of this coping strategy could lead to serious problems with significant others. Holahan and Moos (1987) and

McCrae and Costa (1986) reported that successful coping styles include dealing directly with the stressor but they also require employing behavioral and cognitive activities that maintain a sense of well-being and optimism. Females at risk for suspension employed the most yelling and blaming of others, as well as complaining to friends and family, which places them at highest risk for ineffective use of the coping strategy Ventilating Feelings and potentially places them at greater risk.

This study lends support to the connection between suspension and dropping out. Students who ventilate their feelings in the school environment should be at greater risk for suspension. Since suspension is a major reason for dropping (Bachman et al., 1971; Camayd-Freixas, 1986; Ekstrom et al., 1986; Pallas, 1987; Rumberger, 1987; Wehlage & Rutter, 1986; Wheelock, 1986b) students who use the coping strategy Ventilating Feelings may be at high risk for dropping out.

A-COPE-6, Avoiding Problems, was partially supported for at risk for suspension. There was a significant difference for females at risk for suspension ( $F = 17.24$ ,  $p = .00$ ) compared to females not at risk for suspension. Females at risk for suspension avoided problems the most reporting less use of drugs and alcohol, smoking, avoiding home, and telling themselves the problem is not important. The significant difference for females occurred in spite of the fact that there was no significant difference for gender on A-COPE-6 ( $F = 3.50$ ,  $p = .06$ ).

This study supports the hypothesis that there are significant differences in Avoiding Problems, but the direction was contrary to the one hypothesized. Females at risk for suspension reported significantly fewer Avoiding Problems ( $M = 15.74$ ,  $SD = 2.75$ ) than females ( $M = 17.39$ ,

SD = 2.36) who were not at risk for suspension. At-risk males also reported fewer Avoiding Problems than males who were not at risk for suspension though the difference was not significant. These results suggest that at-risk adolescents may have an excellent coping strategy, or they did not accurately report this coping mechanism.

A-COPE-7, Seeking Spiritual Support, was partially supported for at risk for suspension. There were significant differences for females at risk for suspension ( $F = 8.09$ ,  $p = .01$ ) compared to females not at risk for suspension in Seeking Spiritual Support.

Females at risk for suspension went fewer times to church, prayed, or talked with a religious leader ( $M = 4.75$ ,  $SD = 2.01$ ) than females not at risk of suspension ( $M = 5.98$ ,  $SD = 2.63$ ). Reporting by male adolescents, though not significant, fell within these ranges.

These results lend support to the finding in this study that females at risk for suspension are at greater risk than at-risk males or adolescents who are not at risk for suspension. There was a significant difference for gender on A-COPE-7 ( $F = 6.34$ ,  $p = .01$ ).

A-COPE-8, Investing in Close Friends, was partially supported for at risk for suspension. There was a significant difference for females ( $F = 4.90$ ,  $p = .03$ ) at risk for suspension compared to females not at risk for suspension. At-risk females reported more Investing in Close Friends ( $M = 8.07$ ,  $SD = 1.89$ ) than females not at risk ( $M = 7.31$ ,  $SD = 2.11$ ).

Investing in Close Friends included being close to someone you cared about and being close with a boyfriend or girlfriend. There was a significant difference for gender on this A-COPE factor ( $F = 38.78$ ,



$p = .00$ ). It may be that Investing in Close Friends is a very positive coping strategy for females at risk for suspension. This finding should be interpreted with caution though. The literature on dropping out of school cites pregnancy as a variable for females dropping out of school (Ekstrom et al., 1986; Neufeld & Stevens, 1992; Peng & Takai, 1983; Sullivan, 1988). In addition, a variety of studies have shown that friends (for better or worse) have an important influence on the adolescent.

A-COPE-10, Engaging in Demanding Activity, was supported for at risk for suspension. Males ( $\bar{E} = 8.98$ ,  $p = .00$ ) and females at risk for suspension ( $\bar{E} = 7.83$ ,  $p = .01$ ) were significantly different compared to their respective group.

Females at risk for suspension ( $\bar{M} = 11.00$ ,  $SD = 3.54$ ) reported engaging in fewer activities such as jogging, biking, getting involved in school activities, trying to improve themselves, and working hard on schoolwork. They were followed by males at risk for suspension ( $\bar{M} = 11.62$ ,  $SD = 3.41$ ), females not at risk for suspension ( $\bar{M} = 12.58$ ,  $SD = 3.38$ ), with males not at risk for suspension being involved in the most school activities ( $\bar{M} = 13.06$ ,  $SD = 3.58$ ). This was in spite of the fact that there was no significant difference for gender on A-COPE-10 ( $\bar{E} = 2.87$ ,  $p = .09$ ).

The literature on dropping out of school cites involvement in extracurricular activities and suspension as major variables of dropping out of school (Ekstrom et al., 1986; Neufeld & Stevens, 1992). Adolescents who reported being at risk for suspension may be involved in fewer school activities, a combination which increases the risk of dropping out of school.

A-COPE-12, Relaxing, was partially supported for at risk for suspension. There was a significant difference for males at risk for suspension ( $F = 4.78$ ,  $p = .03$ ) compared to males not at risk for suspension. At-risk males reported more Relaxing ( $M = 13.06$ ,  $SD = 2.28$ ) than males not at risk for suspension ( $M = 12.41$ ,  $SD = 2.18$ ). Both groups of females reported more Relaxing than males but the female differences were not significant. There was a significant difference for gender on A-COPE-12 ( $F = 17.26$ ,  $p = .00$ ).

This study supports the hypothesis that males at risk for suspension are significantly different from males not at risk for suspension in Relaxing. Though Relaxing has its value as a coping strategy, over use or dependency on this coping strategy may ultimately lead to suspension and dropping out. This study does not support the work of Patterson and McCubbin (1987), who reported that Relaxing was the coping pattern most frequently used by both genders.

It was hypothesized that there would be differences between male and female adolescents who reported academic failure compared to male and female adolescents who did not report academic failure in the types of coping skills used. This hypothesis was partially supported for academic failure on two of the coping measures.

A-COPE-6, Avoiding Problems, was partially supported for academic failure. There was a significant difference for females who reported failing recently ( $F = 18.60$ ,  $p = .00$ ) compared to females who did not report academic failure.

Females who failed recently reported significantly fewer Avoiding Problems ( $M = 15.05$ ,  $SD = 2.55$ ) than females ( $M = 17.33$ ,  $SD =$

2.39) who did not report failing. Males who had failed recently also reported fewer Avoiding Problems than males who did not report failing though this difference was not significant.

This study supports the hypothesis that there are significant differences in Avoiding Problems, but the direction was contrary to the one hypothesized. It was hypothesized that male and female adolescents who experienced recent academic failure would report more Avoiding Problems such as drinking, smoking, drug usage, and avoiding home. As with at risk for suspension, at-risk females actually reported significantly less Avoiding Problems. This finding reiterates the previous suggestion that at-risk female adolescents may have an excellent coping strategy, Avoiding Problems, or they did not accurately report this coping mechanism. This study does not support Patterson and McCubbin (1987), who reported that Avoiding Problems was the least frequently used coping pattern.

A-COPE-10, Engaging in Demanding Activity, was partially supported for academic failure. There was a significant difference for males ( $F = 8.49$ ,  $p = .00$ ) who reported recent academic failure compared to males who did not report academic failure.

Males who had failed recently ( $M = 11.16$ ,  $SD = 3.64$ ) reported less Engaging in Demanding Activity than males ( $M = 12.96$ ,  $SD = 3.54$ ) who had not reported academic failure. This was in spite of the fact that there was no significant difference for gender on A-COPE-10 ( $F = 1.98$ ,  $p = .16$ ).

Both groups of females reported less Engaging in Demanding Activity than males but the female differences were not significant.

Engaging in Demanding Activity included activities such as jogging, biking, working hard on schoolwork, or getting more involved in activities at school.

The literature on dropping out of school cites involvement in extracurricular activities and academic failure as key variables of dropping out of school (Ekstrom et al., 1986; Neufeld & Stevens, 1992). Adolescents who reported recent academic failure may be less involved in school activities, a combination which leads to greater risk of dropping out of school.

A-COPE-10, Engaging in Demanding Activity, may have been contaminated. Newcomb et al. (1986) cautioned that life event measures can be confounded by the outcome variables. Engaging in Demanding Activity included the concepts better grades and work hard on schoolwork. These two statements may have been confounded with the dependent variable academic failure.

### Conclusions

The purpose of this study was to examine the levels of stress and distress, as well as the coping styles of adolescents at risk for suspension or academic failure compared to their peers who were not at risk on these two significant variables of dropping out. Native and non-Native rates of at risk for suspension and academic failure were also compared.

The first two hypotheses confirmed that there is a significant difference between Native and non-Native at risk for suspension and academic failure rates. Thirty-six percent of Native adolescents were at risk for suspension compared to 15% of non-Native adolescents. Native

males were more than twice as likely to report at risk for suspension than non-Native males. In addition, 19% of Native adolescents reported recent academic failure compared to 8% of non-Native adolescents.

This study supports the need for educational leaders to examine racial/ethnic reasons for the significant differences in at risk for suspension and academic failure rates. This will enable educational leaders to implement programming that will address the discrepancies. Harold Brathwaite (cited in Lewington, 1995), a Canadian education director with the Peel Board, believes that "We're not in a position to defend ourselves against parents who criticize the over-all quality of education if we can't talk in terms of numbers of students who succeed--and how well they succeed" (p. A4). Clarence Perry, president of the Canadian Alliance of Black Educators, commented that education needs to do more research to compare results on what works and what doesn't work.

Hypothesis 3 indicated that there are significant differences in the levels of stress between male and female adolescents at risk for suspension or academic failure compared with male and female students not at risk for suspension or academic failure. The discrete negative uncontrollable events, a category on the Life Events Questionnaire-Adolescent Form (LEQ-A) developed by Garnezy et al. (1985), was used to determine the amount of stress.

Females at risk for suspension or academic failure reported the greatest level of stress as measured by the frequency of discrete negative uncontrollable life events recently experienced. Their level of stress was greater than males at risk for suspension or academic failure or

adolescents who were not at risk for suspension or academic failure. For females, being at risk for suspension indicated a higher level of stress than academic failure. Males at risk for suspension or academic failure experienced significantly more stress than males not at risk for suspension or academic failure, though there was not much difference in the level of stress produced by at risk for suspension compared with academic failure.

This study has demonstrated that male and female adolescents who are at risk for suspension or academic failure report more stress as measured by discrete adverse life events than their peers who are not at risk. The review of the literature established the links between suspension, academic failure, and dropping out. Though this study does not prove the linkage, it supports the connection between stress and dropping out.

Hypothesis 4 indicated that there are significant differences in levels of distress between male and female adolescents at risk for suspension compared to male and female adolescents not at risk for suspension. Distress was measured using the General Health Questionnaire--the 30-item version (GHQ-30)--developed by Goldberg (cited in D'Arcy & Siddique, 1984).

Whether adolescent females were at risk for suspension, or not, they reported more distress than male adolescents. At-risk females reported the greatest amount of distress, followed by females not at risk, at risk males, and males who were not at risk for suspension. The hypothesized difference between distress and academic failure was rejected.

This study has demonstrated that male and female adolescents who are at risk for suspension report more psychological distress than their peers who are not at risk. The review of the literature indicated that suspension is a major reason for dropping out of school. This study lends support to the studies which show the relationship between dropping out and psychological distress.

Hypothesis 5 indicated that there are significant differences in coping styles between male and female adolescents at risk for suspension. Six of the 12 coping factors and behaviors measured on the Adolescent Coping Orientation for Problem Experiences developed by Patterson and McCubbin (1983) were significantly different for gender.

There is a significant difference for Ventilating Feelings between male and female adolescents at risk for suspension compared to male and female adolescents not at risk for suspension. Females at risk for suspension used this coping strategy the most. They were followed by at-risk males, females not at risk, and males not at risk for suspension.

The coping strategy Ventilating Feelings may be a source of strain (as identified in the literature) that propels the adolescent into more stressful circumstances. Since Ventilating Feelings (A-COPE-1) in the school setting could result in suspension, these students may be at high risk for suspension and eventual dropping out.

There is a significant difference in the coping strategies Seeking Spiritual Support (ACOPE-7), Avoiding Problems (A-COPE-6), and Investing in Close Friends (A-COPE-8) for females at risk for suspension compared to females not at risk for suspension. Females at risk for suspension sought significantly less spiritual support than females not at

risk for suspension.

Females at risk for suspension also avoided problems significantly less than females not at risk for suspension. The direction of this hypothesis was contrary to the anticipated direction. It was hypothesized that male and female adolescents would use more Avoiding Problems by engaging in activities such as drinking, smoking, and drug usage. This result is suspect to the question of whether these at-risk adolescents had an effective coping skill as identified in the literature, or these at-risk adolescents did not accurately report this coping behavior.

Females at risk for suspension reported more Investing in Close Friends than females not at risk for suspension. This finding should be interpreted with caution though. Investing in Close Friends may be an effective coping style for at-risk females or it may ultimately lead to dropping out.

There is a significant difference in Engaging in Demanding Activity (A-COPE-10) for male and female adolescents at risk for suspension compared to male and female adolescents not at risk for suspension. Females at risk for suspension engaged in fewer demanding activities than males at risk for suspension. Females not at risk for suspension engaged in fewer demanding activities than males not at risk for suspension.

The literature on dropping out of school cites involvement in extracurricular activities and suspension as major variables of dropping out. Engaging in Demanding Activity included a statement regarding involvement in school activities. Though it cannot be proven there is reason to believe that adolescents at risk for suspension reported less



participation in school activities. This may place them at greater risk for dropping out.

There is a significant difference in the coping behavior Relaxing (A-COPE-12) for male adolescents at risk for suspension compared to male adolescents not at risk for suspension. Males at risk for suspension reported a greater amount of Relaxing than males not at risk for suspension. Though Relaxing has its value as a coping strategy, over use of this coping behavior may ultimately lead to suspension and dropping out.

Hypothesis 5 indicates that there are limited differences in coping styles for male and female adolescents who report academic failure compared to their peers who do not report academic failure. A difference occurred on two of the coping factors and behaviors measured on the Adolescent Coping Orientation for Problem Experiences developed by Patterson and McCubbin (1983).

There is a significant difference in Avoiding Problems (A-COPE-6) for female adolescents who reported academic failure compared to female adolescents who did not report academic failure. These results were similar to Avoiding Problems for females at risk for suspension. In both cases at-risk females Avoided Problems such as drinking and smoking less than their peers. This was contrary to the direction hypothesized.

There appears to be a significant difference for Engaging in Demanding Activity for male adolescents. Males who reported recent academic failure engaged in less Demanding Activity than males who did not report academic failure. This portion of the hypothesis was considered to be suspect to confounding as working hard on schoolwork and

getting better grades were part of the statements regarding Demanding Activity.

This study supports the need for educational leaders to include coping skills in the curriculum. In particular, adolescents at risk for suspension or academic failure should be identified and provided with programming that addresses the different coping styles identified in this study. Guidance counselors and intervention programs need to help adolescents cope with the events that are occurring in their lives. These at-risk youth need opportunities to learn coping skills that are conducive to success in the school environment.

Wheelock (1986b) indicated that thousands of learning days are lost due to suspensions. Shepard and Smith (1990) reported that by Grade 9 approximately one-half of all American students have flunked at least one grade or they have left school. By using the short term solutions of suspension and academic failure educators may be overlooking the broader problems--adolescents who struggle with stress and distress and adolescents who use different coping styles than adolescents who are not at risk.

Ekstrom et al. (1986) reported on beginning interventions at the first signs of problem behavior (e.g., disciplinary problems, poor grades, and poor attendance). DuBois et al. (1992) reported on the buffering effect of school-based supportive ties for major stressful events associated with psychological distress. Rumberger (1987) indicated that successful dropout programs address the psychological need of the student for someone to care about them as individuals, a need that is often met through counseling.

The time has come to enact these research findings. If a high school diploma is the gateway to higher education, job opportunity, and is paramount for competitive success in the world economy, then increasing student retention must become a national, if not a global, concern. Any dropout rate represents an incalculable loss of human potential and a staggering economic cost to society (Hamby, 1989) for children who fail at school are more likely to fail at life (Frymier et al., 1992).

### Recommendations

This study was designed to explore two significant variables of dropping out, academic failure and at risk for suspension, and determine the relationship between these two variables and adolescent levels of stress, distress, and coping styles. In addition, Native rates of suspension and academic failure were compared to non-Native rates. Archival survey data on adolescents attending high school (Grade 9 to OAC) in two communities in Northern Ontario was used for this dissertation study.

This research design could be improved by using the background question regarding parent(s)' occupation which formed part of the student questionnaire in conjunction with the cultural question. This would enable the examination of socioeconomic differences as well as racial differences. This proposed research design would address the work of Kaufman et al. (1992) and Wehlage and Rutter (1986), who found that after adjusting for socioeconomic status, race is no longer statistically significant for determining dropout.

This research design could be improved by using suspension, rather than at risk for suspension, as one of the dependent variables. This change would require permission from the authors of the LEQ-A to reword Question 32.

The relationship between levels of stress, distress, and coping styles were tied throughout the study to at risk for suspension and academic failure. Where possible the results were also linked to dropping out. The study could have been improved had follow-up research on student academic records been completed to determine whether or not those adolescents at risk for suspension or academic failure, as measured by stress, distress, and coping styles actually recorded a higher dropout rate than their peers who were not at risk.

Future research could involve students who met the criteria for both dependent variables, at risk for suspension and failure, in terms of levels of stress, distress, and coping styles. This may demonstrate that these adolescents demonstrate elevated levels of stress and distress and different coping behaviors.

## **APPENDICES**

**Appendix A**  
**Request for Permission to Use Community Survey**

42 Paris Drive  
Elliott Lake, Ontario  
P5A 2L9

May 25, 1992

Mr. Ron Rodgers, Executive Director  
Algoma Child and Youth Services  
25 Trunk Road  
Sault Ste. Marie, Ontario P6A3S2

Dear Mr. Rodgers,

Further to the letter submitted by Dr. Meissner I am requesting the use of data collected by A.C.Y.S. for my dissertation project at Western Michigan University (Kalamazoo, Michigan). The data that I would use was collected in 1990 and involves the General Health Questionnaire, the Life Events Questionnaire, and the Adolescent Coping Orientation for Problem Experiences questionnaire.

I agree to the terms that Dr. Meissner discussed in his letter to you that include:

- 1) I will assume all responsibility for any costs assumed in this research.
- 2) The participant schools and this agency will not be identified however, A.C.Y.S. will receive formal acknowledgement for assisting me in the acknowledgments section of the thesis.
- 3) My research will follow the directions and requirements of my university committee and will be developed to those standards.
- 4) Analyses of data will use the data set currently residing at Algoma College University.
- 5) Dr. Meissner has agree to be a committee member (subject to approval of Western Michigan University ) and will be a second author on subsequent papers that emerge from my research.
- 6) The research will be limited to the topic of stress, coping and distress in relation to the variables that influence early school leaving.

Sincerely,



Jennifer Massicotte

**Appendix B**  
**Permission to Use Community Survey**



JUN 1 1992

ALGOMA CHILD & YOUTH SERVICESMEMORANDUM

TO: *Jennifer Massicotte*  
FROM: *Ron Rodgers*  
SUBJECT: *Further to your request of May 25, 1992*  
DATE: *May 26, 1992*

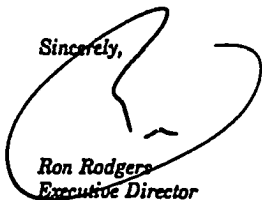
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*You may proceed with the utilization of A.C.Y.S. data, under the terms outlined in the above-mentioned memo.*

*The only addition to this agreement is the provision of a copy of your completed dissertation to the library at A.C.Y.S. "Personally autographed please!"*

*All the best, Jennifer!*

*Sincerely,*



*Ron Rodgers*  
*Executive Director*

*RR/rg*

c.c. *Mike Simpson*  
*Dr. John Meissner*

**Appendix C**  
**Human Subjects Institutional Review  
Board Approval**

Human Subjects Institutional Review Board

Kalamazoo, Michigan 49008-3899  
616 387-8293

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**WESTERN MICHIGAN UNIVERSITY**

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Date: October 16, 1995

To: Jennifer Massicotte

From: Richard Wright, Chair

Re: HSIRB Project Number 95-10-17

*Richard A. Wright*

This letter will serve as confirmation that your research project entitled "Adolescent students at risk: the roles of stress, distress and coping" has been approved under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you must seek specific approval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: October 16, 1996

xc: Charles Warfield, EDLD

## **Appendix D**

### **The Results for the Analysis of Variance, Homogeneity of Variance, and the Kruskal-Wallis for the LEQ-A, the GHQ-30, and the A-COPE**

Table 13

Main Effects of the Analysis of Variance for the Adverse Life Events (LEQ), the Adolescent Coping Orientation for Problem Experiences (A-COPE), and the General Health Questionnaire-30 (GHQ)

Hypothesis	Factor	No. of cases	F	F sig.
#3	LEQ x sex	703	1.22	.270
	LEQ x failure		4.44	.035
	LEQ x suspension		24.53	.000
#4	GHQ x sex	705	43.09	.000
	GHQ x failure		2.22	.137
	GHQ x suspension		13.13	.000
#5	A-COPE-1 x sex	672	0.19	.666
	A-COPE-1 x failure		2.95	.086
	A-COPE-1 x suspension		13.75	.000
	A-COPE-2 x sex	671	.01	.945
	A-COPE-2 x failure		0.07	.790
	A-COPE-2 x suspension		2.26	.134
	A-COPE-3 x sex	679	0.81	.368
	A-COPE-3 x failure		0.53	.468
	A-COPE-3 x suspension		2.41	.121
	A-COPE-4 x sex	677	159.62	.000
	A-COPE-4 x failure		0.00	.992
	A-COPE-4 x suspension		0.52	.473
	A-COPE-5 x sex	674	8.93	.003
	A-COPE-5 x failure		0.05	.830

Table 13--Continued

Hypothesis	Factor	No. of cases	F	F sig.
#5	A-COPE-5 x suspension		3.20	.074
	A-COPE-6 x sex	681	5.99	.015
	A-COPE-6 x failure		3.81	.051
	A-COPE-6 x suspension		10.73	.001
	A-COPE-7 x sex	690	4.12	.043
	A-COPE-7 x failure		1.84	.175
	A-COPE-7 x suspension		4.79	.029
	A-COPE-8 x sex	693	40.61	.000
	A-COPE-8 x failure		0.64	.425
	A-COPE-8 x suspension		3.91	.048
	A-COPE-9 x sex	691	8.66	.003
	A-COPE-9 x failure		2.60	.108
	A-COPE-9 x suspension		1.11	.292
	A-COPE-10 x sex	683	3.88	.049
	A-COPE-10 x failure		4.26	.039
	A-COPE-10 x suspension		12.03	.001
	A-COPE-11 x sex	697	13.69	.000
	A-COPE-11 x failure		1.06	.305
	A-COPE-11 x suspension		2.66	.103
	A-COPE-12 x sex	684	19.62	.000
	A-COPE-12 x failure		0.32	.572
	A-COPE-12 x suspension		5.40	.020

Table 13--Continued

Hypothesis	Factor	No. of cases	F	F sig.
#5	A-COPE-Total x sex	586	14.44	.000
	A-COPE-Total x failure	587	0.35	.554
	A-COPE-Total x suspension		2.58	.109

\*Significant at the .05 level;  $df = 1$ .

Table 14

## Homogeneity of Variance for Significant Factors

Hypothesis	Factor	No. of cases	F ratio	F prob.	p
#1	LEQ x failure	706	15.76	.0001	.000
	LEQ x suspension	706	35.58	.0000	.000
#2	A-COPE-1 x suspension	675	10.00	.0016	.174**
	A-COPE-4 x sex	680	164.01	.0000	.002
	A-COPE-5 x sex	677	10.50	.0013	.392**
	A-COPE-5 x suspension	678	5.37	.0207	.661**
	A-COPE-6 x sex	684	3.50	.0619	.766**
	A-COPE-6 x suspension	685	13.35	.0003	.000
	A-COPE-7 x sex	693	6.34	.0120	.172**
	A-COPE-7 x suspension	694	7.90	.0051	.564**
	A-COPE-8 x sex	696	38.74	.0000	.068**
	A-COPE-9 x sex	694	7.25	.0073	.014
	A-COPE-10 x failure	687	9.74	.0019	.290**

Table 14--Continued

Hypothesis	Factor	No. of cases	$F$ ratio	$F$ prob.	$p$
#2	A-COPE-10 x suspension	687	16.73	.0000	.994**
	A-COPE-11 x sex	700	13.10	.0003	.213**
	A-COPE-12 x sex	687	17.26	.0000	.362**
	A-COPE-12 x suspension	688	4.63	.0317	.541**
	A-COPE-Total x sex	587	16.22	.0001	.095**
#3	GHQ x sex	706	35.59	.0000	.012
	GHQ x suspension	706	12.23	.0005	.036

\*Significant at the .05 level;  $df = 1$ . \*\*Homogeneity of variance.

Table 15

The Nonparametric Kruskal-Wallis to Test for Significance  
Where No Homogeneity of Variance

Hypothesis	Factor	No. of cases	Corrected for ties	
			$c^2$	Sig.
#1	LEQ x failure	706	11.75	.001
	LEQ x suspension	706	19.94	.000
#2	A-COPE-4 x sex	680	134.53	.000
	A-COPE-6 x suspension	685	10.21	.001
	A-COPE-9 x sex	694	8.17	.004
#3	GHQ x sex	706	38.17	.000
	GHQ x suspension	707	11.99	.001

\*Significant at the .05 level.



## **Appendix E**

### **The Nonsignificant A-COPE ANOVAs for At Risk for Suspension and Academic Failure**

Table 16

Means and Standard Deviations on the Adolescent Coping  
Orientation for Problem Experiences (A-COPE-2)  
for Suspension, Academic Failure, and Sex

Category	Sex	No. of cases	Mean	<u>SD</u>	<u>F</u> ratio	Sig. *
Suspension	M	69	25.97	6.69	1.20	.274
No suspension	M	265	25.97	6.72		
Suspension	F	42	26.00	6.12	0.97	.325
No suspension	F	296	26.99	6.10		
Fail	M	38	26.68	7.01	.01	.941
No fail	M	296	26.77	6.69		
Fail	F	23	26.74	6.80	.01	.916
No fail	F	315	26.88	6.07		
A-COPE-2 x sex	M	334	26.87	6.71	.05	.825
A-COPE-2 x sex	F	338	26.87	6.10		

\*Significant at the .05 level.

Table 17

Means and Standard Deviations on the Adolescent Coping  
Orientation for Problem Experiences (A-COPE-3)  
for Suspension, Academic Failure, and Sex

Category	Sex	No. of cases	Mean	<u>SD</u>	<u>F</u> ratio	Sig. *
Suspension	M	71	19.39	3.98	1.28	.258
No suspension	M	264	20.07	4.57		
Suspension	F	42	19.40	4.95	2.25	.134
No suspension	F	303	20.44	4.07		
Fail	M	37	18.89	4.77	2.25	.135
No fail	M	298	20.05	4.52		
Fail	F	21	20.33	4.92	.00	.982
No fail	F	324	20.31	4.15		
A-COPE-3 x sex	M	335	19.93	4.45	1.37	2.43
A-COPE-3 x sex	F	345	20.31	4.10		

\*Significant at the .05 level.

Table 18

Means and Standard Deviations on the Adolescent Coping  
Orientation for Problem Experiences (A-COPE-4)  
for Suspension, Academic Failure, and Sex

Category	Sex	No. of cases	Mean	<u>SD</u>	<u>F</u> ratio	Sig. *
Suspension	M	68	16.79	4.35	1.06	.304
No suspension	M	265	17.41	4.40		
Suspension	F	42	21.38	3.24	.85	.849
No suspension	F	303	21.26	3.77		
Fail	M	38	16.63	3.79	.94	.332
No fail	M	295	17.37	4.46		
Fail	F	23	22.09	4.20	1.17	.280
No fail	F	322	21.22	3.67		
A-COPE-4 x sex	M	334	17.29	4.38	164.01	.000
A-COPE-4 x sex	F	336	21.27	3.71		

\*Significant at the .05 level.

Table 19

Means and Standard Deviations on the Adolescent Coping  
Orientation for Problem Experiences (A-COPE-5)  
for Suspension, Academic Failure, and Sex

Category	Sex	No. of cases	Mean	<u>SD</u>	<u>F</u> ratio	Sig. *
Suspension	M	71	15.89	4.52	0.86	.353
No suspension	M	263	16.46	4.63		
Suspension	F	40	16.30	4.80	2.87	.091
No suspension	F	301	17.67	4.81		
Fail	M	38	16.11	4.09	0.11	.741
No fail	M	296	16.37	4.67		
Fail	F	22	17.55	4.66	0.00	.972
No fail	F	319	17.51	4.84		
A-COPE-5 x sex	M	335	16.35	4.60	10.50	.001
A-COPE-5 x sex	F	342	17.52	4.82		

\*Significant at the .05 level.

Table 20

Means and Standard Deviations on the Adolescent Coping  
Orientation for Problem Experiences (A-COPE-11)  
for Suspension, Academic Failure, and Sex

Category	Sex	No. of cases	Mean	<u>SD</u>	<u>F</u> ratio	Sig. *
Suspension	M	72	7.10	2.23	0.95	.331
No suspension	M	276	7.37	2.05		
Suspension	F	41	6.46	2.16	1.05	.305
No suspension	F	309	6.80	1.92		
Fail	M	40	7.35	1.98	0.02	.899
No fail	M	308	7.31	2.10		
Fail	F	23	7.09	2.11	0.70	.402
No fail	F	327	6.73	1.94		
A-COPE-11 x sex	M	349	7.31	2.08	13.10	.000
A-COPE-11 x sex	F	351	6.76	1.95		

\*Significant at the .05 level.

Table 21

Means and Standard Deviations on the Adolescent Coping  
Orientation for Problem Experiences Total for  
Suspension, Academic Failure, and Sex

Category	Sex	No. of cases	Mean	<u>SD</u>	<u>F</u> ratio	Sig. *
Suspension	M	60	158.67	23.20	1.48	.224
No suspension	M	234	162.87	24.04		
Suspension	F	39	165.18	22.12	1.90	.170
No suspension	F	254	170.28	21.56		
Fail	M	32	157.16	20.55	1.49	.224
No fail	M	262	162.61	24.24		
Fail	F	16	169.56	28.81	.00	.995
No fail	F	277	169.60	21.25		
Total x sex	M	294	162.01	23.89	16.22	.000
Total x sex	F	293	169.60	21.67		

\*Significant at the .05 level.

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