Adolescents, Stressors, and Coping Behaviors

by

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Abstract

Title: Adolescents, Stressors and Coping Behaviors

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"Adolescents, Stressors and Coping Behaviors" was a secondary analysis of data collected during a health fair for a high school-based health center. The variables of primary interest were stressors and coping strategies. Demographic variables including age, gender, ethnicity/race, and program of study also were collected. The sample consisted of 137 youths aged 13 to 20 years, comprised predominantly of Caucasian students. The setting was an alternative high school in a large suburban school district in the Pacific Northwest. A sample was surveyed from the entire school population encompassing six programs of study and including adolescents deemed at-risk for various reasons including substance abuse, legal problems, or pregnancy.

Two research measurements were used. The Stress Questionnaire included thirty stressors youth identified as currently troublesome, or having been so in the past year. The Adolescent-Coping Orientation for Problem Experiences (A-COPE) was developed by Patterson and McCubbin (1996). This consisted of 54 coping behaviors on a Likert-type response scale rating the frequency with which various coping behaviors are used to manage personal life experiences or changes experienced by family members that affect the adolescent.

Data were analyzed to ascertain types of stressors and predominant coping behaviors. These variables were contrasted both with age and program of study. The top ten stressors reported by the sample were school performance, exercise/fitness, self-image/appearance, weight control, depression, nutrition, money problems, problem or breakup with girl/boyfriend, health concerns, and accomplishing goals. The middle adolescent years reflected the greatest amount of overall stress. The level of stress reported by this sample population was on a trajectory with age.

The students in the day and evening academies program of study reported the greatest level of overall stress.

The frequency of reported risk behaviors, such as drug, alcohol and tobacco use and teen pregnancy, within this population was concerning. Risk factors that predispose one to vulnerability, such as loneliness/isolation and lack of parental/family support, also were reported. Younger adolescents appeared to cope more affectively than older teens; older youth appeared to approach struggles with greater problem-solving abilities. Active-distraction techniques, such as exercise and more aggressive or self-destructive acts, were reported as means for coping. A lack of adequate coping behaviors, such as those included in the Seeking Professional Support and Developing Self-reliance and Optimism subscales in the A-COPE, indicated that this population is at risk for healthy adjustment in adolescence and successful transition into adulthood.

General limitations of a secondary data analysis include lack of control over data collection procedures. Additionally, self-report methodology is subject to response biases and novelty effects. Implications for practice included targeting interventions for particular stressors by both age groups and programs of study, as well as augmenting the repertoire of coping skills these adolescents use. Mental health nurse practitioners can work with schools to promote mental health, identify students at risk for psychiatric disorders, and offer consultation and guidance to teachers and parents.

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Adolescents, Stressors and Coping Behaviors

Chapter I: Introduction

Adolescence is typically a tumultuous time, with physiological and psychological changes that potentially place teenagers at risk for situations that exceed their ability to cope successfully. A stressor is defined as "any stimulus such as fear or pain that interferes with the normal physiological equilibrium of an organism; physical, mental, or emotional strain or tension" (Bartholomew, 1989, p. 1407). A coping strategy is a person's customary pattern of adapting to or dealing with perceived stressful events (Puskar, 1991). In the realm of mental health nursing, there is a need for a systematic approach to identifying the types of stress and corresponding coping mechanisms used by adolescents today. The purpose of this study was to analyze previously collected clinical data in order to identify and describe stressors and coping behaviors employed by a socially at-risk adolescent population.

Rationale for Developing the Research Question

In my work as a psychiatric nurse, many adolescents have presented with a multitude of psychosocial stressors and resultant psychiatric diagnoses and problems. Those youth who are deemed socially at-risk frequently present with greater psychosocial stressors and fewer appropriate coping skills. Hence the questions: Why do these particular adolescents attempt to commit suicide, use drugs, or run away more often? What is it about their environment, or alternatively, their responses to their environment that is so problematic? In review of the literature on adolescent stress and coping, few studies have involved "at-risk" youth. The goal of this study was to ascertain what stressors socially at-risk youth face and how they cope with those stressors.

Brindis, in her summary of the 120th Annual Meeting of the American Public Health Association (1993), identified three common themes that have emerged in the realm of adolescent health care. The three identified themes were access to care, the need for a fundamental and early investment in adolescent well-being and development, and the need for society to affirm its value for its youth. Brindis emphasized the necessity for specialty education, specifically for working

with adolescents, to enable educators and practitioners to fully understand the special culture that adolescents represent. Practitioners must identify the types of stress adolescents face and their manifestations in order to successfully intervene on behalf of the adolescent. Determining how adolescents cope with stress can assist identification of both adaptive and maladaptive behaviors. Once coping strategies are assessed, one can move toward identifying interventions to reduce stress, including augmenting current adaptive skills and teaching new coping strategies. Mental health nurse practitioners can work with schools to promote mental health, identify students at risk for psychiatric disorders and other mental health or social problems, and offer consultation and guidance to teachers and parents.

Chapter II: Review of the Literature and Conceptual Framework

The literature review addresses the following: stressors during adolescence, psychiatric diagnoses, problems that arise from stressors, and coping behaviors in adolescents.

Stressors

Stress events in an adolescent's life are multiple and varied. Newcomb (1986) identified how stress factors cluster into controllable and uncontrollable events, and verified that they relate to psychological stress. A longitudinal study by Groer (1992) determined that stress levels rise across the high school years. Problems related to school adjustment (Blotcky, 1984; Puskar, 1991), parent or teacher expectations (Bowen, 1997), and fear of failure (Kaplan, 1983) have been identified as stressors for adolescents. Loss and bereavement (Bowen, 1997) and teen parenthood (Elster, 1983; Kendall, 1996) have been cited as particularly stressful events.

Anatomical, biological, and psychological changes can be stressful and require internal adjustment and adaptation (Berzonsky, 1982). According to Stern (1990), older adolescents tend to identify academic issues as a source of stress while younger adolescents identify greater stress and strain around family issues. Family environment has been studied as to its influence on adolescent psychological distress. Parent-child relationships have been identified as a major stressor for teens (Barron, 1994; Blotcky, 1984; Bowen, 1997; Groer, 1992; Guiao, 1995; Puskar, 1991; Stern, 1990). Lack of support in the parent-child relationship has been specifically identified as stressful (Aro,1989; Alestine, 1994; Kaplan, 1983; Rhodes, 1990). Rhodes (1990) identified that "primary influences on drug use severity are poor family environment and low assertiveness...weak sibling and parental relationships, a lack of perceived parental support and encouragement, and a high degree of family problems" (p. 399).

Stressful relationships and their impact on teen functioning have been examined by many researchers. Kaplan et al. (1983) indicated that rejection by peers and family, and events for which the person failed to meet new expectations, are significantly and positively related to psychological distress in the adolescent. Lack of peer support has also been explored as a major stressor for teens

(Aro, 1989; Alestine, 1994; Kaplan, 1983). Peer relationships, particularly breaking up with a girl or boyfriend, were further specified as stressful (Barron ,1994; Bowen, 1997; Groer, 1992; Puskar, 1991). In addition, Barron's 1994 study of adolescent boys revealed stressful relationships with parents were present for 38% of the sample (n = 1, 633) who were experiencing emotional distress. As cited, sources of stress are multiple and clearly affect individuals differently and to varying degrees.

Problems and Psychiatric Diagnoses

Problems that stem from stressors can be viewed as either stressors themselves or as maladaptive coping. For example, Bowen (1997) and Kaplan (1983) found both low self-esteem and poor self-image contributed to higher teenage stress. General symptoms of stress include "worrying, crying, preparing for the worst, getting mad, taking tensions out on someone or something" (Barron, 1994, p. 17). Blotcky (1984) identified ten overt symptomatic behaviors that reflected a "defensive constellation" in the teen. These included worsening school performance, excessive somatic preoccupation, a change in type of friends or alienation from peer group, serious conflict with parents, accident-prone behaviors, sexual promiscuity, aggressive behavior, drug, alcohol, or other substance abuse, delinquent or antisocial behavior, and signs of depression, such as difficulty in concentration, lassitude, and decreased interest in school and activities (p. 76). Other psychosomatic symptoms include loss of appetite, abdominal pains, dizziness, heartburn and palpitations (Aro, 1989). Negative life events have been linked to multiple somatic complaints in adolescents, such as chest pain and recurrent abdominal pain (Groer, 1992).

Mental health disorders have been identified as direct outcomes of stress in the adolescent. According to Meeks, 20% of all adolescents are thought to experience depression (Puskar, 1991). Major depressive disorder and dysthymic disorder have been reported as a clinical outcome of stress in the adolescent (Alestine,1994; Birmaher, 1996; Brage, 1995; Lewinsohn, 1995). Anxiety disorders also have been related to the risk factors of internalizing and externalizing problems, interpersonal conflict with parents, and dissatisfaction with grades (Lewinsohn, 1995). Dise-Lewis

(1988) reported a correlation between life stress and anxiety, psychosomatic illness, depression, and behavior problems in adolescents. Hopelessness, suicidal ideation, and suicide attempts among adolescents have been found to be directly related to stress (Ciffone, 1988; Garland, 1989; Guiao, 1995; Hewitt, 1997). Furthermore, substance abuse is a significant problematic response to stress events (Gottfredson, 1996; Lewinsohn, 1995; Newcomb, 1986; Rhodes, 1990; Schinke, 1988).

In the realm of ethnic differences, Guiao and Esparza (1995) examined the relationship between suicidality and life stress, coping, depression and family functioning among Mexican-American teens. Results showed a positive correlation between depression and suicidality. In addition, this study illustrated how coping efficacy, family cohesion, and duration of depressive symptoms affected suicidality among Anglo-American teens and Mexican-American teens. Schinke (1988) examined how Hispanic youths cope with life event stressors and found that substance abuse correlated positively with school failure and violence. It is evident that adolescents experience stress in many ways, often resulting in problems or psychiatric diagnoses.

Coping Strategies

Both adaptive and maladaptive coping strategies are used extensively in adolescence. Coping strategies are impacted by various factors, such as the perceived degree or intensity of the stressor and available support. Dise-Lewis (1988) identified five general coping strategies in adolescents. Stress recognition involves the ability to identify triggers to stress and one's emotional, physical and behavioral reactions. Distraction is the ability to engage in an activity, such as reading or exercise, in order to alleviate stress. Endurance is the ability to successfully manage a stressful event without the stress significantly impairing one's daily functioning. Self-destruction entails suicide, substance use and other high risk behaviors such as skateboarding behind cars or diving off bridges. Aggression is verbal or physical lashing out toward others or toward things, often displacing one's emotional reaction to stress.

A few positively adaptive coping mechanisms have been identified in the literature. Those

include self-control (Puskar, 1991), active distraction techniques (Groer, 1992), and reliance on family members (Alestine, 1994; Aro, 1989). Less adaptive coping strategies have included self-destruction (Groer, 1992), aggression and violence (Groer, 1992; Guiao, 1995), and smoking (Sussman, 1993). Substance abuse is well documented as a maladaptive coping strategy (Gottfredson, 1996; Lewinsohn, 1995; Newcomb, 1986; Rhodes, 1990; Schinke, 1988). Suicidal ideation and suicide attempts and completions are identified as one of the most devastating maladaptive coping strategies in teens (Ciffone, 1993; Garland, 1989; Guiao, 1995; Hewitt, 1997; Lear, 1991; Puskar, 1991; Ryerson, 1990). For 15 to 24 year-olds, suicide is thought to be the second leading cause of death, after unintentional injury (Puskar, 1991. p. 270).

Coping strategies in the adolescent can be identified in relation to gender, age, socioeconomic status, and ethnicity (Rosella, 1994). Groer (1992) examined gender influences on stress and coping among adolescents and found that stressful events associated with interpersonal relationships or family members were more stressful for girls than boys. Moreover, coping mechanisms themselves varied by gender. Females utilized such "active distraction" techniques as exercise, whereas males tended to more frequently use self-destructive and aggressive means of coping (e.g. property destruction).

Developmental levels influence the nature of the stressors adolescents face as well as the ways they cope with stress (Groer, 1992). Stern and Zevon (1990) found that younger adolescents utilized "emotion-based" coping mechanisms more frequently than older adolescents. Older teenagers relied more heavily on active, problem-oriented coping strategies than did younger adolescents who focused more on affective processes (Stern, 1990). In addition, younger adolescents were more dependent on their families for problem- solving than were older teens (Stern, 1990). Families have been noted to serve as moderators of coping as well, often lending support and helping to problem-solve (Alestine, 1994; Aro, 1989; Stern, 1990). As evidenced by the literature, maladaptive coping strategies often lead to serious problems and psychiatric diagnoses.

Gaps in the Literature

There exist a few gaps or shortcomings in the literature. For example, several studies on adolescent stress and coping have utilized small or homogeneous samples (Elster, 1983; Groer, 1992; Guiao, 1995; Schinke, 1988; Puskar, 1991). Self-report questionnaires and open-ended question formats yielded inconsistent data and analysis, according to Rosella (1984). Rosella (1984), in an integrative review of the literature on adolescent coping mechanisms, also examined demographic variables and methodological approaches in 37 studies. He suggested that further research should include more diverse socioeconomic and racial groups. He also urged using a greater span of time to take into consideration recall and reaction to life events. Similarly, Jessor (1993) urged researchers to examine the "process by which young people make it despite the adversity they face in terms of poverty, limited opportunity, and racial and ethnic discrimination" (p. 126). Groer (1992) suggested that "qualitative research might yield rich information about coping methods and changes over time or linkages between specific types of stress and various ways of coping" (p. 215). This particular methods gap was addressed in the current study by requesting information regarding retrospective events.

Setting is also important. Information about normative adolescent issues can be readily obtained in a school or household setting. However, "juvenile justice facilities, inpatient psychiatric hospitals, and community agencies are good settings for studying youth with serious or multiple problems" (Gans, 1995, p. 306). According to Gans and Brindis (1995), when confidentiality can be guaranteed, candid reporting of sensitive or deviant behavior may be improved. Youths are targeted for alternative high schools due to an interest in a particular program of study, (for example, computers or electronics), or because they have experienced life events resulting in lack of success in a mainstream setting. There have been few studies in alternative high school settings. The current study specifically drew from data collected from this population and therefore serves to address this shortcoming.

Conceptual Framework: Defining "at-risk"

According to Jessor (1991), there are interrelated conceptual domains of risk factors and protective factors that lend themselves to adolescent risk behavior, lifestyles and subsequent health and life-compromising outcomes. The domains, which are meant to be illustrative, include: biology/genetics, social environment, perceived environment, personality, and behavior. Risk factors and protective factors exist for each domain. These domains affect adolescent risk behavior and lifestyles and are best viewed as problem behavior, health-related behavior and school behavior. Subsequent health and life compromising outcomes effect general health, social roles, personal development, and preparation for adulthood (Appendix A).

Within this conceptual framework, adolescents can be separated into two major categories: those already engaged in at-risk behavior and therefore at risk for health and life-compromising outcomes, and those not yet involved in risk behavior but vulnerable to initiating or becoming involved in at-risk behavior. With the first group, the focus is on the degree of risk associated with the engagement in risk behaviors. For example, what potential compromising outcomes might be the result of illicit drug use, precocious sex, or truancy? For the latter group, the emphasis is on degree of risk represented in the various domains of risk and the likelihood that predisposing factors would lead to at-risk behavior. Epidemiological, developmental, psychological, and social factors all play a role in the adolescent's engagement in at-risk behaviors. To omit any of these areas would be a grave oversight in assessing overall adolescent functioning.

Psychosocial risk, therefore, is concerned with "the entire range of personal development and social adaptation in adolescence" (Jessor, 1991, p. 598). Risk behaviors can jeopardize physical health, physical growth, the accomplishment of normal developmental tasks, role fulfillment, skills acquisition, adequacy and competence, and appropriate preparation for adulthood (Jessor, 1991). Risk behavior can be defined as behavior that compromises these psychosocial aspects or successful adolescent development (Jessor, 1991). The purpose of this study was to analyze previously collected clinical data in order to identify and describe the stressors and coping

strategies employed by a socially at-risk adolescent population.

Chapter III: Methods

Overview of Study Design

This study involved a secondary analysis of data collected during a health fair for a high school-based health center. The variables of primary interest were stressors and coping strategies; demographic variables including age, gender, race, grade, and program of study were also collected. These variables have not been studied in socially "at- risk" populations in an alternative high school setting; this study provided a descriptive data base for the population of interest. A combination of cross-sectional and retrospective events were explored.

Sample and Setting

The setting was an alternative high school in a large suburban school district in the Pacific Northwest. A sample from the entire student population was surveyed, including students from six programs of study: a community school, including adolescents deemed at-risk for various reasons including substance abuse and legal problems; a continuing education for young parents program for pregnant teens and teenage parents; a natural resource sciences and technology program geared for computer and electronically-oriented students; a graduate equivalent degree preparation program; an evening academy; and a day academy. The student population was comprised predominantly of at-risk youth in all programs, with the natural resource sciences and technology program being an exception. All questionnaires were anonymous. No names or identifying marks were utilized. Confidentiality was maintained regarding all student responses to the questionnaires.

Data were collected from a nonprobability, volunteer sample of adolescents aged 13-20 years. A total of 137 students completed the surveys. The largest percentage of respondents were fifteen years old (37%); the mean age was 16 (M = 15.86, SD = 1.38) (see Table 1). The majority of students were female (53%) and Caucasian (82%) (Table 1).

The majority of the respondents were ninth graders (44%, n = 58). Of the remaining students, a fourth were tenth graders (n = 33), 15% were eleventh graders (n = 20), and 17% were twelfth graders (n = 22). The natural resources science and technology program and the

community school were almost equally represented [40% (n = 55) and 36% (n = 49), respectively]. Fifteen percent (n = 21) were from the continuing education for young parents program , 5% (n = 7) from the day academy and 4% (n = 5) from the evening academy. Only one student was from the graduate equivalent degree program (0.7%).

Table 1- Demographics of Age and Race/Ethnicity

AGE	n	%
13 years	1	0.7
14 years	16	11.4
15 years	50	35.7
16 years	31	22.1
17 years	19	13.6
18 years	15	10.7
19 years	3	2.1
20 years	2	1.4
total	137	97.9

RACE/ETHNICITY	n	%
Caucasian	115	82.1
Hispanic	11	8.0
African American	6	4.
Native American	4	2.9
Asian American	4	2.9
East Asian	1	0.7
Multi-racial	7	5.0
Other	3	2.1

Variables and their Measurement

Stress Questionnaire

In order to ascertain the types of students participating in the study and the types of problems they encounter, a one-page survey questionnaire was used (Appendix B). This questionnaire sought information regarding gender, age, race, grade, and program of study. In addition, students were asked to identify stressors from a list of 30 items. The items were drawn from the research literature and reflected a broad array of previously identified adolescent stressors. The students were asked to check those items that were problematic currently or had been in the past year.

Adolescent-Coping Orientation for Problem Experiences

The primary research tool was the Adolescent-Coping Orientation for Problem Experiences (A-COPE) developed by Patterson and McCubbin (1996) (Appendix C). This instrument was designed to identify behaviors adolescents find helpful for managing problems and/or difficult situations (Patterson, 1996). It consists of 54 coping behavior items with a Likert-type response scale. The adolescent is asked to rate the frequency with which various coping behaviors are employed to manage personal life experiences and those changes experienced by family members that affect the adolescent indirectly (Patterson, 1996).

Twelve coping patterns emerge from the 54 items. These patterns or subscales include ventilating feelings, seeking diversions, developing self-reliance and optimism, developing social support, solving family problems, avoiding problems, seeking spiritual support, investing in close friends, seeking professional support, engaging in demanding activity, being humorous, and relaxing. Items for each subscale are listed in Table 2; items marked with an asterisk require reversal prior to scoring.

Table 2- A-COPE Subscale Items

SUBSCALE NAME	ITEMS
Subscale 1: Ventilating Feelings	19*, 22, 26*, 28*, 49*, 51
Subscale 2: Seeking Diversions	2,9,11,33,37,43,48,53
Subscale 3: Developing Self-reliance and Optimism	15, 25, 32, 40, 45, 47
Subscale 4: Developing Social Support	4, 14, 18, 30, 35, 52
Subscale 5: Solving Family Problems	1, 12, 31, 39, 41, 50
Subscale 6: Avoiding Problems	8*, 24*, 36, 42*, 46*
Subscale 7: Seeking Spiritual Support	21, 23, 44
Subscale 8: Investing in Close Friends	16, 29
Subscale 9: Seeking Professional Support	6, 34
Subscale 10: Engaging in Demanding Activity	10, 13, 27, 54
Subscale 11: Being Humorous	3, 20
Subscale 12: Relaxing	5, 7*, 17, 38

(Patterson, 1996, p. 540).

Patterson and McCubbin reported Cronbach's alpha reliabilities ranging from .50 to .76 for the twelve subscales reflecting adequate internal consistency. The lowest alpha internal consistency estimate (.50) was found for the Seeking Professional Support subscale followed by the alpha for the Relaxing subscale (.60). Engaging in Demanding Activity and the Developing Self-reliance and Optimism subscales yielded alpha internal consistency estimates of .67 and .69 respectively. All

other subscales had alpha coefficients between .71 and .76 (Patterson, 1996, p. 541). The relative reliability of the subscales has been demonstrated further in a study comparing coping behaviors of youth with cystic fibrosis and healthy adolescents (Patton, et al., 1986).

In the current study, internal consistency estimates were calculated for each of the twelve subscales. Cronbach alphas were as follows: Ventilating Feelings, .24; Seeking Diversions, .60; Developing Self-reliance and Optimism, .72; Developing Social Support, .73; Solving Family Problems, .72; Avoiding Problems, .61; Seeking Spiritual Support, .73; Investing in Close friends, .66; Seeking Professional Support, .25; Engaging in Demanding Activity, .69; Being Humorous, .77; Relaxing, -.10. Generally, the subscales had adequate internal consistency with the exception of Ventilating Feelings, Seeking Professional Support, and Relaxing. The lower estimates for the latter two subscales were consistent with previous research.

In terms of validity of the A-COPE, coping patterns have been examined in relation to the use of cigarettes, beer, wine, and marijuana. Ventilating feelings (r = .13 to .17), investing in close friends (r = .16 to .25), and developing social support appeared to complement substance use (r = .09). In contrast, coping directed at family problems (r = -.10 to -.21), seeking spiritual support (r = -.11 to -.21), and engaging in demanding activity (r = -.13 to -.18) competed against substance use (Patterson, 1996).

Further validity has been established by regressing each of the five substances (cigarettes, beer, wine, liquor, and marijuana) on the coping patterns of males and females. The regression analysis demonstrated that coping plays both a role in mitigating substance use (as evidenced by competing patterns of solving family problems, seeking spiritual support, and engaging in demanding activity) and facilitating it (as evidenced by complementary patterns of investing in close friends, ventilating feelings, and developing social support) (Patterson, 1996). According to Patterson (1996), adolescent coping behavior can be assessed from the perspective that adolescent coping is often directed at multiple demands. In other words, coping need not only be considered stressor-specific.

Chapter IV: Results

Stressors

The number of stressors was summed yielding a range of scores from one to twenty-five out of a possible high score of thirty. Higher scores indicated more stress. The students reported, on average, 7.3 stressors (SD = 5.7). The modal number of stressors was two. The top ten stressors reported by the sample were school performance, 61% (n = 85); exercise/fitness, 49% (n=69); self-image/appearance, 43% (n = 61); weight control, 42% (n = 59); depression, 42% (n = 59); nutrition, 40% (n = 56); money problems, 39% (n = 55); problem or breakup with girl/boyfriend, 38% (n = 53); health concerns, 36% (n = 50); and accomplishing goals, 34% (n = 48).

Differences in Stressors by Age

Analysis of variance (ANOVA) was conducted to test the differences of stressors among age groups, defined as 14 years old or younger (n = 17), 15 year old (n = 50), 16 year old (n = 31), and 17 years and older (n = 39). ANOVA revealed a significant difference among groups, $F(3, 134) = 7.87$, $p < .001$. Sixteen-year-old youths reported a significantly larger number of stressors ($M = 9.74$, $SD = 6.20$), whereas youth 14 years or younger reported significantly fewer stressors ($M = 3.94$, $SD = 4.46$), within a 95% confidence interval (Table 3).

Table 3 - Descriptive Statistics of Stressor by Age Groups

	n	Mean	Standard Deviation	Standard Error
≤ 14 years	17	3.94	4.46	1.08
15 years	50	5.54	4.83	.68
16 years	31	9.74	6.20	1.1
≥ 17 years	39	9.23	5.61	.90
Total	137	7.34	5.75	.49

Post hoc comparisons, using Scheffe's test to reduce the level of chance, revealed that sixteen-year-olds and those 17 and older did not differ significantly in terms of number of stressors. Both of these groups endorsed significantly more stressors than the two younger groups. The mean difference between youths 14 years and younger and those 17 years and older was 5.29, $p < .05$; the mean difference between 15 year-olds and those 17 and older was 3.69, $p < .05$. The mean difference between teens 14 and younger and those 16 years old was 5.80, $p < .05$; the mean difference between fifteen-year-olds and sixteen-year-olds was 4.20, $p < .05$. The two younger groups also did not significantly differ from one another.

Different stressors characterized each age group. The five stressors reported most frequently by students fourteen years or younger were self-image/appearance, exercise/fitness, school performance, depression, and accomplishing goals. Fifteen-year-old students reported their top five stressors to be self-image/appearance, weight control, exercise/fitness, school performance, and accomplishing goals. Stressors reported most frequently by sixteen-year-olds and those students seventeen and older were weight control, school performance, depression, problem or breakup with a girl/boyfriend and money problems.

Inspection of the descriptive data revealed how specific stressors differed among groups.

(Table 4). For example, the stressors of health concerns and weight control increased in frequency from those youths 14 years and younger (for whom the concern was minimal) to those fifteen years old to those 17 years and older and sixteen-year-olds. Pregnancy was reported as a concern most by sixteen-year-olds and those 17 years and older, with nearly a third identifying this as a problem. The stressor of depression was reported by one quarter to one-third of youths fifteen and under and by almost sixty percent of sixteen-year-olds and those over 17 years. Problems or breakup with a girl/boyfriend were also different amongst groups with a substantial portion of sixteen-year-olds and those 17 years and older reporting these concerns.

Alcohol use and smoking/chewing tobacco concerns differed with sixteen-year-olds most frequently reporting use, followed by students 17 years and older, and fifteen-year-olds. Drug use was reported by twenty to thirty-five percent of the students; once again more sixteen-year-olds reported this stressor than did fifteen-year-olds or those seventeen or older. All substances were reported by none or one students 14 years or younger. The stressor of money problems was reported more with increasing age; twenty percent and less identified this was a concern at fifteen years and younger, whereas half of sixteen-year-olds and two-thirds of those 17 years and older reported this as a stressor. Living situation was a concern for older age groups, with almost half of those 16 years old and over 40% of those 17 years and older reporting this stressor. Very few fifteen-year-olds and none of those 14 years and younger identified this concern. A third of sixteen-year-olds reported legal problems as a concern compared to one-fifth or less for the other age groups. This may be accounted for by the higher proportion of this group's concern for drug and alcohol use.

Table 4 - Specific stressors by Age Group

Stressor	Age Group 14 yr. + yonger % (n)	15 yr. % (n)	16 yr. % (n)	17 yr. + older % (n)
Health Concerns	6% (1)	28% (14)	52%(19)	49% (50)
Weight Control	17% (2)	30% (15)	65% (20)	57% (22)
Depression	29% (5)	24% (12)	58% (18)	62% (24)
Problem/ Breakup	24% (4)	14% (7)	55% (17)	62% (24)
Alcohol use	0	14% (7)	42% (13)	26% (10)
Smoking/ tobacco	6% (1)	20% (10)	45% (14)	36% (14)
Drug Use	6% (1)	20% (10)	36% (11)	31% (12)
Pregnancy	12% (2)	10% (5)	39% (12)	36% (14)
Money Problems	18% (3)	20% (10)	52% (16)	62% (24)
Living Situation	0	14% (7)	49% (15)	44% (17)
Legal Problems	0	6% (3)	32% (10)	18% (7)

Adolescent Coping

Adolescent Coping scores were obtained for each subscale by summing the numbers circled for each item by the respondent (i.e., 1= never, 2= hardly ever, 3= sometimes, 4= often, 5= most of the time) (reverse scoring was carried out for the appropriate items). Descriptive statistics including minimum, maximum, mean and standard deviation were calculated for each subscale (Table 5).

Table 5- Descriptive Statistics of Coping Subscales

Subscale	Range	Mean (SD)
Ventilating Feelings	10.00 - 25.00	17.74 (3.35)
Seeking Diversions	8.00 - 35.00	22.38 (5.13)
Developing Self-reliance and Optimism	6.00 - 30.00	19.23 (4.42)
Developing Social Support	6.00 - 29.00	19.39 (4.72)
Solving Family Problems	6.00 - 30.00	16.52 (4.80)
Avoiding Problems	6.00 - 25.00	17.23 (4.48)
Seeking Spiritual Support	3.00 - 14.00	5.49 (2.84)
Investing in Close Friends	2.00 - 10.00	6.48 (2.36)
Seeking Professional Support	2.00 - 9.00	3.96 (1.77)
Engaging in Demanding Activity	4.00 - 20.00	11.93 (3.65)
Being Humorous	2.00 - 10.00	7.19 (1.97)
Relaxing	8.00 - 18.00	13.00 (2.45)

Differences in Coping by Age

Of the twelve coping patterns, six differed by age. They were Developing Social Support [$F(3, 134) = 2.64$, $p < .05$], Avoiding Problems [$F(3, 134)] = 11.96$, $p < .01$], Investing in Close Friends [$F(3, 134) = 9.78$, $p < .01$], Engaging in Demanding Activity [$F(3, 134) = 2.76$, $p < .05$], Being Humorous [$F(3,134) = 2.78$, $p < .04$], and Relaxing[$F(3, 134) = 4.00$, $p < .01$]. There were trends for differences by age on two coping subscales. These were Seeking Diversions

[$F(3, 134) = 2.02$, $p < .09$] and Seeking Professional Support [$F(3, 134) = 2.44$, $p < .07$].

Post hoc comparisons (Table 6) showed that, generally, younger students used Avoiding Problems significantly more frequently than older youth, and those fourteen years and younger also used Engaging in Demanding Activity more. Sixteen-year-old youths reported engaging in coping strategies of the Being Humorous coping pattern significantly more than other groups, and with those 17 years and older, reported Investing in Close Friends significantly more than the other two groups. Items within the Developing Social Support and Relaxing subscales were reported significantly by youth ages 17 years and older as compared to other age groups.

Table 6 - Differences in Coping Patterns by Age

	Developing Social Support	Avoiding Problems	Investing in Close Friends	Engaging in Demanding Activity	Being Humorous	Relaxing
≤ 14 yr.	18.29	21.19	4.94	14.18	7.47	12.24
	(2.69)	(2.27)*	(1.92)	(3.27)*	(1.77)	(1.92)
15 yr.	18.15	18.5	5.64	11.73	7.36	12.34
	(5.70)	(4.13)*	(2.21)	(3.88)	(2.07)	(2.33)
16 yr.	20.40	15.29	7.35	11.42	7.65	13.88
	(3.74)	(4.46)	(2.03)*	(3.64)	(1.52)*	(2.31)
≥ 17 yr.	20.42	15.52	7.44	11.46	6.44	13.57
	(4.31)*	(2.17)	(2.23)*	(3.12)	(2.13)	(2.69)*

Note. Values enclosed in parentheses represent mean differences.

*Significant at the .05 level

Differences in Stressors by Program

Programs were collapsed into four major categories: natural science resources and technology, NRST (n = 55); community school program, COMM (n = 49); continuing education for young parents program, CEYP (n = 21); day and eve academies, DAY/EVE (n = 12). The category of graduate equivalent degree program (GED) was dropped due to low numbers (n = 1). Analysis of variance (ANOVA) yielded a significant difference among groups on the number of stressors, $F(3, 133) = 16.69$, $p \leq .001$. Students in the day/evening academies reported a significantly more stressors ($M = 13.67$, $SD = 5.80$) than the other groups and students in the NRST program reported significantly fewer stressors ($M = 4.09$, $SD = 3.58$) within a 95% confidence interval. However, more students in the NRST program reported at least two stressors than did students in any other program.

Table 7 - Descriptive Statistics for Stressors by Program

Program	n	Mean	Standard Deviation
NRST	55	4.09	3.58
COMM	49	8.20	5.65
CEYP	21	8.86	4.66
DAY/EVE	12	13.67	5.80
Total	137	7.13	5.54

Specific stressors varied across programs (Table 8). The students in the NRST program reported their top five stressors as exercise/ fitness, nutrition, self-image/appearance, school performance, and peer acceptance and approval. Youth in the community school program reported the stressors of nutrition, weight control, self image/appearance, depression, and a problem or

breakup with a girl/boyfriend more frequently than other stressors. Continuing education for young parents program students their top five stressors to be weight control, pregnancy, parenting, money problems, and problem or breakup with a girl/boyfriend. Students in the day/evening academies reported self-image/appearance, weight control, exercise/fitness, school performance, and money problems more frequently than other stressors.

Personal safety was reported by more youth in the CEYP program (18.4%, n = 9); however, violence and legal problems were reported most often by the day/evening academy students. Gang involvement was reported equally among students in the CEYP program, community school program, and day/evening academies. Alcohol, drug, and tobacco use was reported most frequently by students in the community school program, with sixty-six to seventy-five percent of the students identifying this as a concern.

Table 8 - Sum of the Stressors by Program

	NRST %(n)	COMM %(n)	CEYP %(n)	DAY/EVE %(n)
Self-Image/ Appearance	31% (17)	47% (23)	48% (10)	75% (9)
Nutrition	31% (17)	45% (22)	48% (10)	42% (5)
Weight Control	20% (11)	43% (21)	76% (16)	75% (9)
Exercise/ Fitness	46% (25)	47% (23)	48% (10)	67% (8)
School Perform.	56% (31)	59% (29))	57% (12)	83% (10)
Depression	23% (13)	53% (26)	52% (11)	58% (7)
Problem/ Breakup	16% (9)	43% (21)	62% (13)	58% (7)
Pregnancy	2% (1)	25% (12)	57% (12)	58% (7)
Money Problems	18% (10)	41% (20)	67% (14)	67% (8)
Living Situation	6% (3)	34% (18)	52% (11)	42% (5)
Accomplish Goals	26% (14)	39% (19)	38% (8)	42% (5)

Differences in Coping by Program

The students' use of coping patterns significantly differed according to program. There were significant differences for three coping patterns: Ventilating Feelings [$F(3, 133) = 7.28$, $p < .01$], Avoiding Problems [$F(3, 133) = 24.12$, $p < .01$], and Investing in Close Friends [$F(3, 133) = 5.85$, $p < .01$] (Table 9). The use of these coping patterns had a trend for differences by program: Seeking Professional Support [$F(3, 133) = 1.16$, $p < .07$], Engaging in Demanding Activity [$F(3, 133) = 2.41$, $p < .07$], and Relaxing [$F(3, 133) = 2.25$, $p < .09$].

Table 9 - Coping Differences by Program per Subscale

Program	Ventilating Feelings	Avoiding Problems	Investing in Close Friends	Seeking Professional Support	Engaging in Demanding Activity	Relaxing
NRST	18.51	19.96	5.51	3.49	12.82	12.50
	(3.14)	(3.03)*	(2.10)*	(1.54)	(3.81)*	(2.40)
COMM	17.67	14.39	7.16	4.38	10.93	13.46
	(3.14)*	(4.58)*	(2.29)	(2.07)*	(3.67)	(2.49)
CEYP	19.24	18.82	7.23	4.29	11.62	12.58
	(2.85)	(2.76)	(2.23)*	(1.52)	(3.04)	(2.15)
DAY/EVE	14.00	14.17	6.75	4.00	12.17	13.97
	(3.19)*	(3.41)*	(2.60)	(1.73)	(3.51)	(2.69)*

Note. Values enclosed in parentheses represent mean differences.

*Significant at the .05 level

Post hoc comparisons were carried out using Scheffe's test for differences. Adolescents in the natural science resources and technology program reported using strategies significantly more in the Avoiding Problems and Engaging in Demanding Activity subscales than the other groups, and significantly fewer strategies in the Investing in Close Friends subscale. Youth in the community school program indicated the highest use of coping strategies in Seeking Professional Support and, together with the day/evening academies, indicated significantly less use of Avoiding Problems and Ventilating Feelings. Students in the continuing education for young parents program reported coping skills involving Investing in Close Friends significantly more than any other program. Youth in the day/evening academies reported relying on strategies of Relaxing significantly more than any other program.

Chapter V: Discussion

The purpose of this study was to analyze previously collected clinical data in order to identify and describe the stressors and coping strategies employed by a socially at-risk adolescent population. The research questions were: Do these youth present with great psychosocial stressors? What coping skills do they employ? Limitations of the study, implications, and recommendations will be presented.

Principle Findings

Referring again to Jessor's conceptual framework, adolescents can be separated into two major categories: those already engaged in at-risk behavior and therefore at risk for health and life-compromising outcomes, and those not yet involved in risk behavior but vulnerable to initiating or becoming involved in at-risk behavior. At-risk behaviors included in the Stress Questionnaire included eating disorders, sexually-transmitted disease, suicide, violence, gang involvement, alcohol, drug and tobacco use, pregnancy, homelessness, and legal problems. These stressors were reported, overall, with percentages from 2% (homelessness) to 42% (depression) of the study population. Vulnerable behaviors in the Stress Questionnaire were self-image/appearance, weight control, loneliness/isolation, peer acceptance/approval, problem or breakup with girl/boyfriend or partner, personal safety, lack of parent/family support, money problems, and living situation. These were reported within a range of overall percentages from 15% (personal safety and lack of parent/family support) to 43% (self-image/appearance) within the study population. Youth within this sample population reported concerns with both vulnerable and at-risk behaviors.

The middle years of adolescence reflected the greatest amount of stress; sixteen-year-olds reported a significantly larger number of total stressors than the other age groups. In keeping with Groer's longitudinal study (1992), stress levels within this study group increase across the school years. Older age adolescents in this study reported greater numbers of stressors than did younger youth. Stern's findings (1990) identified that older adolescents tend to identify academic issues as

a source of stress as compared to younger adolescents. In this study, younger teens reported an equal percentage of academic stress as older teens (60%). In addition, younger adolescents reported more parent/family support than did older youth which is in contrast with Stern's findings (1990).

Other specific stressors identified in the literature review were also reported by this study population. Problems related to school adjustment (Blotky, 1984; Puskar, 1991) were reflected in the school performance stressor which was identified by 61% of this population. Loss and bereavement (Bowen, 1997) were identified by 3% of the study population. Pregnacy and teen parenthood, identified by Elster (1983) and Kendall (1996) as a significant adolescent stressor, was reported by 24% of the students for pregnancy and 13% of the students for parenting. Peer relationships, particularly a breakup with a girl or boyfriend, identified by Barron (1994), Bowen (1997) and Groer (1992) also were echoed by this study population (38%) as was peer acceptance/approval (22%).

Problems that stem from stressors and maladaptive coping strategies also mirrored the literature. For example, drug, alcohol, or other substance abuse have been identified as maladaptive responses to stress events (Gottfredson, 1996; Lewinsohn, 1995; Newcomb, 1986; Rhodes, 1990; Schinke, 1988) and was reported by 46% of this population. Furthermore, smoking and chewing tobacco was identified by an additional 29% of the students. Depression has been identified in 20% of all adolescents (Puskar, 1991); however, almost half of this sample population identified depression as a stressor (43%). Suicide has been documented as one of the most tragic maladaptive coping strategies in teens and was identified as a concern by 12% of the students in this study. One could infer that these at-risk youths experience greater stress and more adverse outcomes in terms of substance use, depression and suicidality than do youth in the general population.

Coping strategies in relation to age for this study population reflected similarities with existing literature. Younger youth appeared to deal with problems more affectively, as evidenced

by higher total coping scores for the patterns of Avoiding Problems, Being Humorous, and Engaging in Demanding Activity. Older youth appeared to approach struggles with greater problem-solving abilities as illustrated by higher scores on the coping patterns of Developing Social Support and Investing in Close Friends. These findings are in keeping with a study by Stern (1990). Although families typically have served as moderators of coping (Alestine, 1994; Aro, 1989; Stern, 1990), family support may be less available to many of these students as evidenced by the identification of the stressors of lack of family/parent support (15%) and homelessness (3%). Active-distraction techniques, such as exercise, and more self-destructive or aggressive outlets have been reported as coping measures (Groer, 1992) and were apparent in this population as reflected by the engaging in Demanding Activity coping pattern. This coping pattern was identified most frequently by youth less than 14 years and those teens in the natural sciences resources and technology program (refer to Tables 6 and 9).

Programs also reflected differences in both stressors and coping behaviors. The day and evening program students reported the greatest overall level of stress. The literature reviewed points up causal relationships between drug use severity and poor family relations, low self-esteem, and lack of support (Rhodes, 1990). This trend was evident among day/evening academy youth who reported high rates of alcohol, drug and tobacco use as well as concerns for lack of parental support, problems or breakup with girl/boyfriend, loneliness/isolation and self-image/appearance. In addition, these students could be considered at the greatest risk for major psychiatric disorders given the high proportion that identified stressors such as depression, suicide and eating disorders. However, their reliance on coping strategies identified in Investing in Close Friends, Engaging in Demanding Activity and Relaxing indicated some positive coping which perhaps could prevent the development of severe psychological disorders.

Another finding of interest was that more youth in the natural resource sciences and technology program reported at least two stressors than did other students. Additionally, these youth reported significantly less use of Investing in Close Friends as a coping pattern and a higher

use of Avoiding Problems. The nature of the NRST program fosters competition. These findings suggest that these "solo-flyers" may not only be experiencing a great degree of stress, they may have fewer outlets for support. In contrast, youth in the continuing education for young parents program are encouraged to foster group identity and this was clearly reflected in the high use of the strategies in the Investing in Close Friends coping pattern. This may also reflect gender differences as the NRST program predominantly consists of males and the CEYP program predominantly consists of females. Assessing the networks for problem-solving available to these teens per program would perhaps increase problem-solving skills and social outlets, or outlets for communicating feelings. Another concerning trend existed for youth in the continuing education for young parents program who reported a higher concern for the stressors of self-image/appearance, nutrition, weight control, eating disorders and depression. Early screening and intervention for eating disorders would be prudently targeted towards students in the CEYP program.

Implications

The findings of this study have implications for providers who care for adolescents within, or outside of, a school setting. This paper illustrates stressors and coping behaviors employed by adolescents in an alternative high-school setting. These findings can be used as a reference to assist practitioners in identifying the types of stress adolescents face, and the manifestations thereof, in order to successfully intervene on behalf of the adolescent. Determining how adolescents cope with stress can assist identification of both adaptive and maladaptive behaviors. Mental health nurse practitioners can work with schools to promote mental health, identify students at risk for psychiatric disorders and other mental health or social problems, and offer consultation and guidance to teachers and parents. Early intervention may forestall greater dysfunction in the life of the adolescent.

Interventions for stressors and coping behaviors could be targeted for age groups. Given the increasing number of stressors on a trajectory with age, preventative measures could be

targeted at youth fourteen years or younger. Early intervention could be aimed at fifteen-year-olds. Intervention and restorative measures targeted for the sixteen-year-old and older youth. Intervention topics could be grouped according to percentages of stressors identified by each of the four age groups in the study. Examples of possible groupings for intervention topics might include: health concerns, nutrition, weight control and exercise/fitness; alcohol use, drug use, and smoking/tobacco; depression and suicide; problem/breakup with girl/boyfriend; and money concerns, legal problems and living situation.

Similarly, grouping several stressors from the Stress Questionnaire could lead to intervention topics tailored for the specific programs with this particular population, and at schools with similar academic divisions. For example, self-image/appearance, nutrition, weight control and exercise/fitness weighed heavily in the community school program, the CEYP program and the day/evening academies (refer to Table 8). School performance and accomplishing goals were reported in relative percentages for all four programs and could be addressed school-wide. Pregnancy was reported as a stressor by students in the day/evening academies (58%) at a level comparable to the continuing education for young parents program (57%); any interdention could be focused accordingly. Living situation was identified as a stressor by 37 to 52% of the youth in three of the four programs, the NRST program being the outlier. These stressors also could be targeted further by age with the goals of prevention and intervention for the respectvie programs of study.

Two of the most maladaptive coping strategies amongst teens are substance use and suicide. The students in the day/evening academies, despite being a small sample (n=12), identified alcohol, drug and tobacco use 67 to 75%. Depression, loneliness/isolation and suicide were also identified more frequently by day/evening academy youth than students in any other program (33 to 58%). It would be prudent to initiate drug/alcohol awareness and prevention programs, as well as suicide prevention programs, targeted specifically for this program of study.

<u>Limitations of the Study</u>

The greatest limitation to this secondary data analysis was the lack of control over the data collection procedures. General limitations of a nonexperimental, multivariate, descriptive research design include limits on the ability generalize, threats to internal validity from instrumentation, and threats to external validity from the Hawthorne effect, novelty effects, and experimenter effects. This research question did not lend itself to an experimental design due to its descriptive nature. Manipulation of variables was not desirable due to the emphasis on capturing what teenagers think, feel and do in the natural school environment. The flexibility required by an exploratory-descriptive design limits the degree of control over the variables in study conditions. Scheffe's test, as a fairly liberal test, was appropriate for the exploratory nature of this research, but would otherwise need to be replaced for more stringent tests for differences.

The sample of 137 students was skewed toward the NRST (n = 55) and community (n = 49) programs, as compared to the CEYP program (n = 21) and day/evening academies (n = 12). The graduate equivalent degree program category was dropped due to low numbers (n = 1). This must be taken into account when analyzing the data. Analysis of variance was used because it is robust even in the face of skewed data, such as the lordosis present for the age variable. Stressors and coping patterns were significant for the day/evening academy in particular, and due to low numbers may not be reflective of the total population of that program. Gender differences were not specifically explored.

There may exist some limitations on the health fair environment where there is less control over independent and extraneous variables, including temperature, noise, and peer effects. In addition, the dependent variables examined may be influenced by time of day or time of year data is collected. Dependent variables may also be influenced by individual characteristics and personal factors of the individual subjects, such as severity of current life stressors, and simpler factors such as fatigue level and hunger.

Self-report questionnaires are limited by what the subjects are willing to reveal on any

given topic. Information may tend to be superficial, due to inability to probe more complex issues. Rosella (1994) reviewed 37 research studies and noted that "self-report questionnaires and open-ended question formats revealed inconsistent data and analysis" when employed with adolescent populations (p. 494). However, in order to obtain an overview of stressors and coping skills experienced by a large number of at-risk youth, a self-report questionnaire was an efficient and economic measure.

Self-report methods are strong with respect to directness and versatility, can get at retrospective events, measure psychological characteristics, and cover a fair quantity of content. Response biases, such as social desirability, extreme responses and acquiescence response sets, however, may be problematic. These were anticipated and compensated for by the types of questions employed and strategies such as counterbalancing within the A-COPE; however, the Stress Questionnaire was directly subject to these effects. In addition, results based on the A-COPE subscales of Ventilating Feelings, Seeking Professional Support, and Relaxing should be approached with caution based due to the lack of internal consistency. Future research could benefit from further defining theses subscales to more definitively measure these traits.

Recommendations

It would be desirable for future studies involving at-risk youth to encompass a broader range of races and ethnicities, as this population was characterized predominantly by Caucasian youth. Additionally, it would be desirable to obtain information regarding socio-economic status to ascertain what effect, if any, this has on adolescent stressors and coping behaviors.

The study design could be altered. A scheduled interview tool might lend itself to greater depth. Studies evaluating causal relationships among stressors and coping strategies and more pathological disorders, such as major depression, would be desirable. Longitudinal studies could evaluate the effects of problem behavior, health-related behavior and school behavior on general health, social roles, personal development, and preparation for adulthood. It would be also desirable to evaluate further the inter-relational quality of risk factors and protective factors in

adolescent functioning which lend themselves to adolescent risk behavior, lifestyles and subsequent health and life-compromising outcomes. Furthermore, it would be interesting to compare this sample of alternatives high-school students to a population including main-stream high-school youth. This would serve to evaluate whether or not these youth actually present with greater psychosocial stressors and fewer appropriate coping skills, as well as assessing their environment and their responses to their environment as different or similar to other youth.

Summary

This study analyzed previously collected clinical data in order to identify and describe stressors and coping strategies employed by a largely socially at-risk adolescent population. The lived experience for adolescents in the late 1990's is changing and evolving, encompassing different, and perhaps more difficult, struggles for these youthsas compared to previous generations. Moreover, the population of at-risk youth further segregates itself from the general population and lends itself to exploring unique stressors experienced by these teens. Results indicated that this sample population struggle with significant stressors and some maladaptive coping behaviors which may place them at risk for successful adolescent development and transition into adulthood.

Chapter VI: Conclusions

The student sample population presented with evidence of risk behavior, lifestyles, and potential life-compromising outcomes. The results were similar to previous research with respect to several findings. Stress was reported on a trajectory with age. The top ten stressors reported by the sample were school performance, exercise/fitness, self-image/appearance, weight control, depression, nutrition, money problems, problem or breakup with girl/boyfriend, health concerns, and accomplishing goals. Coping strategies reflected similarities with the literature. Younger youth appeared to approach problems more affectively-oriented than older teens. Active-distraction techniques, such as exercise and more aggressive or self-destructive means of coping, were reported by this population. Additionally, problems related to stress and maladaptive coping identified in the literature were apparent for this group. These included drug, alcohol or other substance abuse, smoking and chewing tobacco, pregnancy, depression, and suicide. Causal relationships were not explored in this study. However, it is noteworthy that youth who reported the greatest percentage of alcohol, drug and tobacco use also reported lack of parental support, loneliness/isolation and self-image/appearance which has been reported previously.

In contrast to the literature, younger adolescents in this study reported more parent/family support than older youth. Older adolescents reported living situation a stressor more frequently than younger teens. Younger teens in previous studies have reported academic issues as a greater stress than did older youth, however, younger and older adolescents reported academic stress equally in this population of interest. Additionally, family support has been reported as a moderator for stress in the literature, but was not readily apparent for this population.

Based on the findings of this study, and given the limitations, the implications of this study were many. Teens experience multiple stressors and although some positive coping strategies exist, many youth struggle without resources. Adolescents in this study were both engaged in and vulnerable to risk behaviors which jeopardize healthy adjustment in adolescence and successful transition into adulthood. Data can be utilized by nurse practitioners in primary and mental health

settings and educators tointervene on behalf of the adolescents. Early identification of risk behaviors or vulnerabilities, can curb development or exaccerbation of risk behaviors. Education can be provided regarding risk behaviors and maladaptive coping in order to afford youth better skills to successfully navigate adolescence. Program development within the school setting can be customized for the adolescent population in a setting where most youth spend the majority of their time. Future studies should include greater diversity in the sample populations, comparison of at-risk youth to general adolescent populations, and longitudinal studies to evaluate the effects of problem behavior on personal development and adjustment to adulthood.

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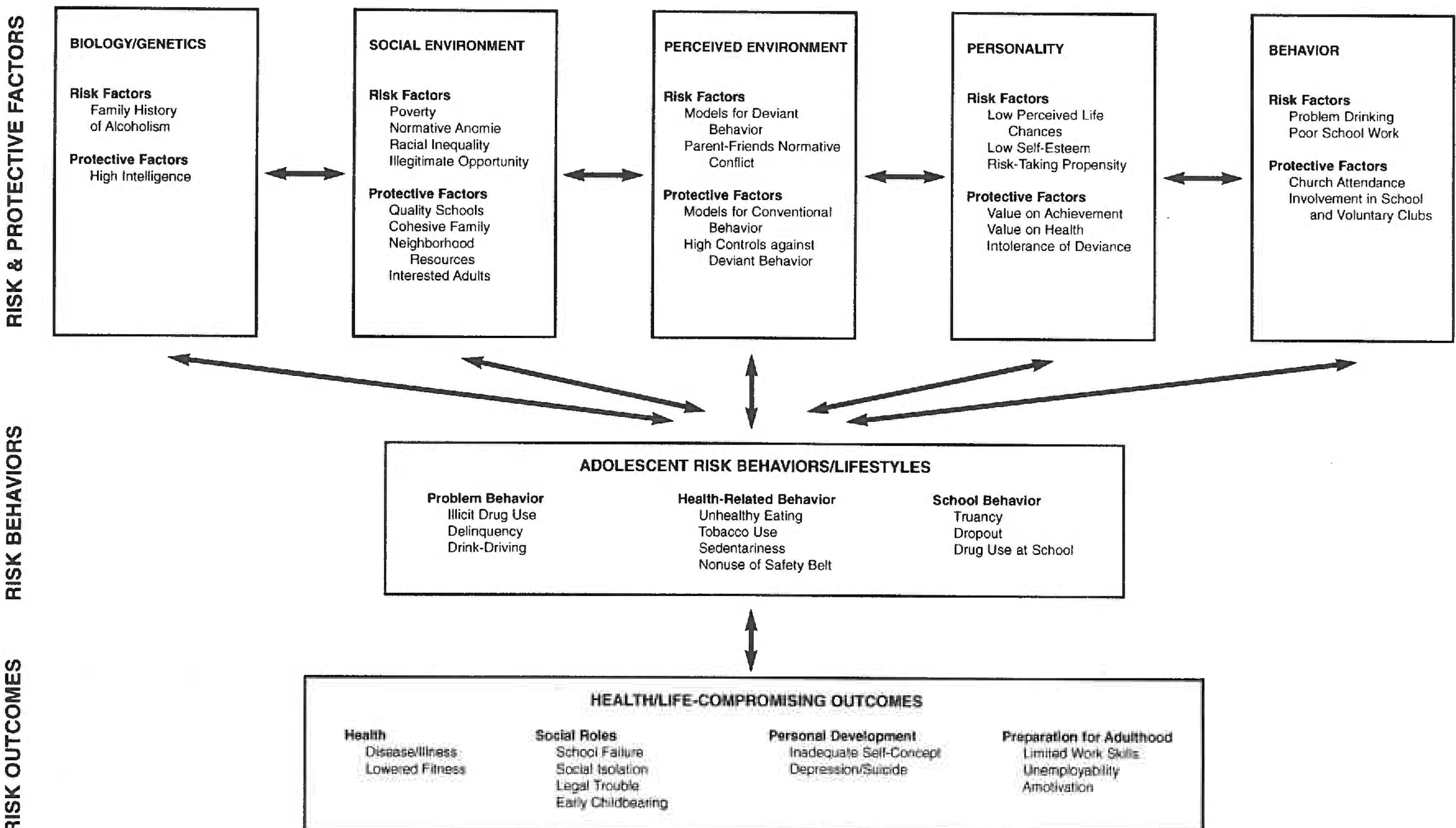
Appendices

APPENDIX A

A Conceptual Framework for Adolescent Risk Behavior: Risk and Protective Factors, Risk Behaviors, and Risk Outcomes

Interrelated Conceptual Domains of Risk Factors and Protective Factors



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APPENDIX B
STRESS QUESTIONNAIRE

Age: ____years

Birthdate:___/___/___
(mo) (day) (yr)

Sex: ___male
___female

Grade: (check one) 9 10 11 12

Program: (check one)

	Natural Resource Science & Technology School		Continuing Education for Young Parents Program
	Community School		Evening Academy
	Graduate Equivalent Degree Program		Other:

Race: (check all that apply)

	Caucasian		African-American		Asian-American		Multi-racial
	Hispanic		Native American		East-Asian		Other:________

Please check all of the topics below that are now or have been concerns for you in the past year:

	Health concerns		Personal Safety
	Self-image/appearance		Violence
	Nutrition		Gang involvement
	Weight control		Alcohol use
	Exercise/fitness		Drug use
	Eating Disorder		Smoking/chewing tobacco
	Sexually transmitted diseases		Pregnancy
	Steroid use		Parenting
	Work performance		Lack of parent/family support
	School performance		Money problems
	Depression		Living situation
	Suicide		Homelessness
	Loneliness/isolation		Legal problems
	Peer acceptance/approval		Loss or bereavement
	Problem or breakup with girl/boyfriend or partner		Accomplishing goals

CESTION de ESFUERZO

Edad: ____**anos**

Fecha de nacimiento:___/___/___
(mes) (dia) (ano)

Sexo: __**hombre**
__**mujer**

Claso: (marque uno) 9 10 11 12

Programma: (marque uno)

	Natural Resource Science & Technology School		Continuing Education for Young Parents Program
	Escuela de la Communidad		**Academia de noche**
	Graduate Equivalent Degree Program		**Otro**:

Raza: (marque toda que se applican)

	Caucasian		**African-American**		**Asian-American**		**Multi-racial**
	Hispanic		**Native American**		**East-Asian**		**Other:**________

Por favor marque todos de lo temas que son asuntos para usted:

	Problemas de salud		**Seguridad personal**
	Aparencia		**Violencia**
	Nutrición		**Envuelto en pandillas**
	Control de peso		**Uso de alcohol**
	Ejercicio/aptitud		**Uso de droga**
	Trastorno con comer		**El fumar/uso de tobaco**
	Enfermedades transmitidas sexualemente		**Embarazo**
	Uso de esteroioes		**Ser buen padre/madre**
	Función de trabajo		**Falta de apoyo de familia**
	Función de escuela		**Problemas con dinero**
	Depresión		**Situación de vivir**
	Suicidio		**Sin casa ni hogar**
	Soledad/aislamiento		**Problemas legales**
	Aceptación/aprobacion de iguals		**Pérdida o aflicción**
	Término o problema con novio/a o compañero/a		**Obtener/ complir metas**

APPENDIX C

Family Stress, Coping and Health Project
School of Human Ecology
1300 Linden Drive
University of Wisconsin- Madison
Madison, WI 53706

A-COPE

ADOLESCENT-COPING ORIENTATION FOR PROBLEM EXPERIENCES

Joan M. Patterson **Hamilton I. McCubbin**

Purpose

A-COPE is designed to record the behaviors adolescents find helpful to them in managing problems or difficult situations which happen to them or members of their families.

> ***Coping*** *is defined as individual or group behavior used to manage the hardships and relieve the discomfort associated with life changes or difficult life events.*

Directions

- Read each of the statements below which describes a behavior for coping with problems.
- Decide how often you do each of the described behaviors when you face difficulties or feel tense. Even though you may do some of these things just for fun, please indicate only how often you do each behavior as a way to cope with problems.
- Circle one of the following responses for each statement:
  1 - NEVER 2 - HARDLY EVER 3 - SOMETIMES 4 - OFTEN 5 - MOST OF THE TIME
- Please be sure and circle a response for each statement.

When you face difficulties or feel tense, how often do you:	Never	Hardly Ever	Sometimes	Often	Most of the Time
1. Go along with parents' requests and rules	1	2	3	4	5
2. Read	1	2	3	4	5
3. Try to be funny and make light of it all	1	2	3	4	5
4. Apologize to people	1	2	3	4	5
5. Listen to music- stereo, radio, etc.	1	2	3	4	5
6. Talk to a teacher or counselor at school about what bothers you	1	2	3	4	5
7. Eat food	1	2	3	4	5
8. Try to stay away from home as much as possible	1	2	3	4	5
9. Use drugs prescribed by a doctor	1	2	3	4	5
10. Get more involved in activities at school	1	2	3	4	5
11. Go shopping; buy things you like	1	2	3	4	5
12. Try to reason with parents and talk things out; compromise	1	2	3	4	5
13. Try to improve yourself (get body in shape, get better grades, etc.)	1	2	3	4	5
14. Cry	1	2	3	4	5
15. Try to think of the good things in your life	1	2	3	4	5
16. Be with a boyfriend or girlfriend	1	2	3	4	5

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Please continue on back →

When you face difficulties or feel tense, how often do you:	Never	Hardly Ever	Sometimes	Often	Most of the Time
17. Ride around in the car	1	2	3	4	5
18. Say nice things to others	1	2	3	4	5
19. Get angry and yell at people	1	2	3	4	5
20. Joke and keep a sense of humor	1	2	3	4	5
21. Talk to a minister/priest/rabbi	1	2	3	4	5
22. Let off steam by complaining to family members	1	2	3	4	5
23. Go to church	1	2	3	4	5
24. Use drugs (not prescribed by a doctor)	1	2	3	4	5
25. Organize your life and what you have to do	1	2	3	4	5
26. Swear	1	2	3	4	5
27. Work hard on schoolwork or other school projects	1	2	3	4	5
28. Blame others for what's going wrong	1	2	3	4	5
29. Be close with someone you care about	1	2	3	4	5
30. Try to help other people solve their problems	1	2	3	4	5
31. Talk to your mother about what bothers you	1	2	3	4	5
32. Try, on your own, to figure out how to deal with your problems or tension	1	2	3	4	5
33. Work on a hobby you have (sewing, model building, etc.)	1	2	3	4	5
34. Get professional counseling (not from a school teacher or school counselor)	1	2	3	4	5
35. Try to keep up friendships or make new friends	1	2	3	4	5
36. Tell yourself the problem is not important	1	2	3	4	5
37. Go to a movie	1	2	3	4	5
38. Daydream about how you would like things to be	1	2	3	4	5
39. Talk to a brother or sister about how you feel	1	2	3	4	5
40. Get a job or work harder at one	1	2	3	4	5
41. Do things with your family	1	2	3	4	5
42. Smoke	1	2	3	4	5
43. Watch T.V.	1	2	3	4	5
44. Pray	1	2	3	4	5
45. Try to see the good things in a difficult situation	1	2	3	4	5
46. Drink beer, wine, liquor	1	2	3	4	5
47. Try to make your own decisions	1	2	3	4	5
48. Sleep	1	2	3	4	5
49. Say mean things to people; be sarcastic	1	2	3	4	5
50. Talk to your father about what bothers you	1	2	3	4	5
51. Let off steam by complaining to your friends	1	2	3	4	5
52. Talk to a friend about how you feel	1	2	3	4	5
53. Play video games (Space Invaders, Pac-Man) pool, pinball, etc.	1	2	3	4	5
54. Do a strenuous physical activity (jogging, biking, etc.)	1	2	3	4	5

Family Stress, Coping and Health Project
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1300 Linden Drive
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A-COPE

ORIENTACION PARA HACER FRENTE A LOS PROBLEMAS-ADOLESCENTE

Joan M. Patterson **Hamilton I. McCubbin**

Proposito

A-COPE ha sido diseñado para anotar los comportamientos que los adolescentes encuentran útiles al tratar de resolver problemas o dificultades que les suceden a ellos o a miembros de sus familias.

Coping se define como los esfuerzos personales o colectivos usados para confrontar los apuros y para aliviar las molestias asociadas con cambios de vida o eventos difíciles.

Instrucciones

- Lea cada declaración la cual describe un comportamiento para confrontar los problemas.
- Decida que tan a menudo usted efectúa cada uno de los comportamientos al presentársele dificultades o cuando se siente tenso(a). A pesar de que usted hace algunas de estas cosas solo por diversión, por favor indique SOLAMENTE que tan a menudo se comporta de esta manera al confrontar los problemas.
- Encierre en un círculo una de las siguientes respuestas para cada declaracíon:
  1 - NUNCA 2 - CASI NUNCA 3 - A VECES 4 - A MENUDO 5 - CASI SIEMPRE
- Por favor dé una respuesta para cada declaración.

Cuando se confronta con dificultades o se siente tenso, con que frecuencia usted:	**Nunca**	**Casi Nunca**	**A veces**	**A menudo**	**Casi siempre**
1. Sigue las reglas de los padres de familia	1	2	3	4	5
2. Lee	1	2	3	4	5
3. Trata de ser divertido y de hacer la situación menos grave	1	2	3	4	5
4. Pide perdón a las personas	1	2	3	4	5
5. Escucha música, etc.	1	2	3	4	5
6. Habla con un profesor u orientador en su escuela sobre el problema que le molesta	1	2	3	4	5
7. Come	1	2	3	4	5
8. Trata de mantenerse lejos de la casa al máximo	1	2	3	4	5
10. Se involucra más en actividades colegiales	1	2	3	4	5
11. Va de compras; adquiere cosas que le gustan	1	2	3	4	5
12. Trata de razonar con los padres y de discutir la situación; cede para llegar a un acuerdo	1	2	3	4	5
13. Trata de mejorarse (en buena condición física, mejores notas, etc.)	1	2	3	4	5
14. Llora	1	2	3	4	5
15. Trata de pensar en las buenas cosas de su vida	1	2	3	4	5
16. Pasa tiempo con el novio (a)	1	2	3	4	5

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Por favor continúe en la siguiente página →

Cuando se confronta con dificultades o se siente tenso, con que frecuencia usted:	Nunca	Casi Nunca	A veces	A menudo	Casi siempre
17. Se da un paseo con el auto	1	2	3	4	5
18. Dice complementos a otros	1	2	3	4	5
19. Se enfada y grita a la gente	1	2	3	4	5
20. Bromea y se mantiene de buen humor	1	2	3	4	5
21. Habla con un pastor/padre/rabino	1	2	3	4	5
22. Se descarga quejándose con otros miembros de la casa	1	2	3	4	5
23. Va a la iglesia	1	2	3	4	5
24. Usa drogas (no prescritas por un doctor)	1	2	3	4	5
25. Organiza su vida y todo lo que tiene que hacer	1	2	3	4	5
26. Dice malas palabras	1	2	3	4	5
27. Se aplica en proyectos del colegio	1	2	3	4	5
28. Le da la culpa a otros por los problemas que tiene	1	2	3	4	5
29. Se acerca a alguien que estima	1	2	3	4	5
30. Trata de ayudar a otros a resolver sus problemas	1	2	3	4	5
31. Habla con su madre sobre lo que le molesta	1	2	3	4	5
32. Trata, por cuenta suya, de tratar los problemas o tensión que tiene	1	2	3	4	5
33. Pasa el tiempo en algún pasatiempo (Cose, canta, etc.)	1	2	3	4	5
34. Busca ayuda profesional (no dentro del colegio)	1	2	3	4	5
35. Trata de mantener amistades o de hacer nuevas	1	2	3	4	5
36. Se dice a si mismo que el problema no es importante	1	2	3	4	5
37. Va al cine	1	2	3	4	5
38. Sueña despierto sobre como le gustaría que fueran las cosas	1	2	3	4	5
39. Habla con un hermano o hermana sobre como se siente	1	2	3	4	5
40. Busca trabajo o trabaja fuerte en el que tiene	1	2	3	4	5
41. Participa en actividades con la familia	1	2	3	4	5
42. Fuma	1	2	3	4	5
43. Ve televisión	1	2	3	4	5
44. Reza	1	2	3	4	5
45. Trata de ver el lado bueno de la situación	1	2	3	4	5
46. Bebe cerveza, vino o licor	1	2	3	4	5
47. Trata de tomar sus propias decisiones	1	2	3	4	5
48. Duerme	1	2	3	4	5
49. Dice groserías a la gente, es sarcástico	1	2	3	4	5
50. Habla con su padre sobre lo que le molesta	1	2	3	4	5
51. Se desahoga al quejarse con sus amigos	1	2	3	4	5
52. Discute la situación con un amigo	1	2	3	4	5
53. Juega con los juegos electrónicos, billar, máquina tragaperras, etc.	1	2	3	4	5
54. Hace alguna actividad física (coree, anda en bicicleta, etc.)	1	2	3	4	5