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The Demands and Coping Strategies of Adolescent Freshmen in the Transition to Post-Secondary Education

by

Janice Lynn Waters

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled, "The Demands and Coping Strategies of Adolescent Freshmen in the Transition to Post-Secondary Education" submitted by Janice Lynn Waters in partial fulfillment of the requirements for the degree of Master of Science.

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ABSTRACT

The transactional model of stress and coping emphasizes that the demands faced and the coping strategies used by specific age groups are distinctly different. Most research concerned with the investigation of adolescents has focused on youths of high school age. Adolescents who are experiencing the transition to post-secondary education are facing a new set of demands; therefore, the results of research interested in high school students may not be generalizable to those experiencing the transition to post-secondary education.

The purpose of the study was to determine the extent of the demands faced by adolescents in their first year of post-secondary education, the nature of these demands, the coping strategies used to manage them, the role that perceived control plays in the stress and coping process, and the impact of anxiety and depression on stress and coping. A group of students were given questionnaire packages at four time periods during one academic year. Forty nine students voluntarily participated in the study at Time 1. Twenty eight subjects remained at Time 4.

Results showed that the most commonly reported demand across all four times was some type of academic situation, most often the perception that there is too much work to be done. Academic demands were found to be the most stressful for the majority of students. The most frequent coping strategies used to deal with academic stressors are reframing the situation to make it more positive, planning for future stressful events, and accepting that the situation is real. Differences in utilized coping strategies were found for gender, amount of upgrading received before entering post-secondary education, place of residence, and extent of employment prior to entering the freshman year. Results also showed that a relationship exists between stress, anxiety and depression which becomes stronger over time. Also, stress, anxiety and depression are connected to the use of specific types of coping methods.

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Chapter 1

Introduction

For many, the experience of stress is a daily occurrence. It is an emotional response to many things from daily hassles to major life events (Compas, Wagner, Slavin, & Vanatta, 1986; Folkman & Lazarus, 1985; Mazzuca, 1983). The number of people who experience stress related problems is rising (Magnusson, 1982). This increasing prevalence should be taken seriously since research suggests that stress can have serious negative effects on individuals' physical and mental health (Compas, Davis, Forsythe, & Wagner, 1987; Folkman & Lazarus, 1980; Siddique & D'Arcy, 1984).

Modern society is undergoing rapid economic, social, political, and technological changes to which each person must adapt. These changes have significant effects on institutional priorities and labor market conditions. Those who are making post-high school plans, the majority of whom are later adolescents, are especially hard hit by these developments. They are under increased pressure to achieve high academic standards, to make major career decisions earlier than past generations, and to maintain a healthy personal lifestyle as well (Brown & Brooks, 1990; Mazzuca, 1983; Stump, 1986). Thus, there is a high probability that this population could be one of the hardest hit by the effects of stress.

The age at which adolescents face these increased pressures is what developmental theorists call the early adult transition (Levinson, 1986; Scnheider-Fuhrmann, 1986). Levinson (1986) describes this transition as the time in which "we are most buffeted by our own passions and ambitions from within and by the demands of family, community, and society from without" (p. 5). During this developmental stage some adolescents may also experience the transition from high school to post-secondary education. Unique demands faced by adolescents experiencing this transition are: academic concerns, friendship, employment and finances, separation from parents and family, and developing a strong sense of identity (Berman & Sperling, 1991; Hayes, 1981; Staik & Dickman, 1988). For

these students the nature of demanding situations are twofold: that which results from the transition from high school to post-secondary education and that which occurs as a result of the adolescence to adulthood transition (Jorgensen & Dusek, 1990).

The research to date has focused on delineating the demands faced by and the coping strategies used by adolescents. However, the tradition for research in the area of stress and coping in adolescents has been either to determine the demands specific to a certain group (Staik & Dickman, 1988; Warner, 1990) or to investigate coping strategies utilized by a specific group (Jorgensen & Dusek, 1990; Patterson & McCubbin, 1987). The contemporary theories of stress and coping regard the two as part of a single process and propose that in order to attain an accurate picture of this process, stress and coping must be studied together (Lazarus & Folkman, 1984).

Adolescence has been termed a period of "storm and stress" by some researchers (McCubbin & Patterson, 1986; Tyerman & Humphrey, 1983). In order for counsellors, parents, teachers, and the adolescents themselves to understand better the meaning of the 'storm and stress' associated with the transtion to adulthood, it is important to investigate carefully the intricate relationships between the adolescent, the demand, the appraisal of the demand, the incurred level of stress, the possible mediating variable of perceived control, and the coping processes used to reestablish the balance within a given context. By gaining a clearer understanding of these relationships, professionals who work with adolescents can develop more effective programs and counselling interventions to help adolescents understand the nature of the demands they face, learn more appropriate ways to cope with these demands and to manage the stress they experience.

Rationale

Much of the literature based on the current model of stress has focused on the experience of adults. Children, adolescents, and adults all experience stress in one form or another. However, according to Lazarus (1966) the stress experience for children and adults is quite different. Each reacts to different types of demands, differs in perceived

intensity of the demand and varies in the methods used to cope (Compas, 1987; Jorgensen & Dusek, 1990; Patterson & McCubbin, 1987; Petersen & Spiga, 1982). Very little research has concentrated on the demands, stress, and coping processes of adolescents and most of what has been done here is concerned with youths of high school age (Allen & Hiebert, 1991; Compas, Wagner, Slavin, & Vanatta, 1986; Fanshawe & Burnett, 1991). Adolescence has developmentally distinct phases within itself and is also differentiated on this basis from childhood and adulthood (Compas, Davis, Forsythe, & Wagner, 1987). These distinct phases of the life cycle are characterized by unique experiences (Berzonsky, 1983). Therefore, the findings of stress and coping research using adults or younger adolescents may not be generalizable to the later adolescent experience. More research focused on adolescents, especially later adolescents, is needed to further knowledge and understanding of the demands and stress experienced and coping processes used that are unique to this age group.

The Current Study

The current study investigated the relationship between demands, stress, appraisal, and coping as a process in adolsecent first year post-secondary students. It is important to acknowledge that the transition from secondary to post-secondary education can be approached from a variety of different perspectives. For example, Upcraft and Gardner (1990) adopted an institutional administration and policy making framework , and Donaldson (1992) examined the role the educator plays in this transition. This study adopted primarily a psychological focus examining the interplay between the demands adolescents face, the ways in which they attempted to cope with those demands, and their experience of stress. Specifically, the study addressed the following four goals. The first goal was to find out more specifically what demands adolescent freshmen perceive as stressful as well as the nature of these demands. The second task was to identify what it is about the situation that is demanding and how much perceived personal control adolescents feel in dealing with the demand. The third goal was to delineate what specific coping

strategies were used to deal with the different demands and the associated stress experience. The fourth goal was to discover how all of these changed over time.

Overview

The nature of the study will be explained in greater detail in the following chapters. Chapter two will consist of an explication of the interactional model of stress and a review of the literature detailing the experience of demands, stress, and coping as it pertains to adolescents as well as relevant discussions of the early adult transition. Chapter three describes the methodology used in the study and Chapter four provides the results of the research. Chapter five concludes the paper with a discussion and interpretation of the results along with the implications for counselling programs and recommendations for future research.

Chapter 2

Literature Review

This chapter is divided into three major sections. It begins with a description of the transactional model of stress and coping which is the theoretical basis for the study. It then reviews the stress research specific to adolescents which includes a discussion of the situations older adolescents find most demanding and also describes and integrates the relevant literature on the transition to post-secondary education. The chapter concludes with a review of coping strategies common in adolescents with an emphasis on how these relate to specific demands and the experienc of stress.

The Transactional Model of Stress and Coping

The concept of stress has been described in different ways. It has been defined as a stimulus that resides within the demanding situation (Holmes & Rahe, 1967), and also as the response to the situation in terms of physiological arousal resulting from attempts to maintain homeostasis (Selye, 1974). However, the most currently accepted model for understanding stress is the transactional perspective which views stress as resulting from a perceived imbalance between demands and available resources for coping with those demands (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Hiebert, 1987, 1988; Lazarus & Folkman, 1984). The transactional perspective integrates the nature of the demanding situation, and the relevant physiological, behavioral and cognitive processes involved, into the entire stress and coping process. Emphasis is placed on the importance of individual perception of the demand and how this compares to available coping resources (Hiebert, 1988). The model can therefore account for interindividual differences across situations and intraindividual differences across time because whether or not a stress reaction is invoked depends on how the situation is perceived.

The four main components of the stress process according to the transactional model are: the demand, the appraisal of the demand and coping resources, the stress response, and the coping attempt.

Demands

A demand exists when a situation requires attention or effort on the part of the person. Demands can be pressures or stressors depending on how effective individuals perceive their coping abilities. Pressures are demands that are perceived to be within the individual's coping ability. On the other hand, a demand becomes a stressor when a perceived demand-coping mismatch occurs. Thus, a demand only has the potential to be a stressor. It is the perception of coping ability in relation to a demand that determines the extent to which a stress reaction occurs (Hiebert, 1983; 1987; Lazarus & Folkman, 1984; Magnusson, 1982).

Cognitive Appraisal

Cognitive appraisal is the process through which people evaluate situations in terms of their significance for well-being (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). As long as a situation requires attention, cognitive appraisals are continually being made. They form the basis for action and reaction and are necessary for understanding the stress response (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Lazarus & Folkman, 1984).

When faced with a demanding situation, two types of appraisals are made: those concerned with the demand characteristics themselves, primary appraisal, and those involving the evaluation of available coping resources, or secondary appraisal (Lazarus & Folkman, 1984). Primary appraisal involves the evaluation of the situation in terms of well-being for the person. The situation may be judged as irrelevant, benign-positive, or stressful. Of particular importance are stressful appraisals. When a situation is evaluated as stressful it is either in terms of harm or loss, threat, or challenge. Harm/loss appraisals refer to a situation in which the physical or emotional damage has already occurred. Threat appraisals signify the anticipation of harm or loss and, like harm/loss appraisals, are characterized by negative emotions such as fear, anxiety or anger. Challenge appraisals, on the other hand, describe situations in which there is the potential for mastery, growth, or

gain and are characterized by pleasurable emotions such as eagerness or excitement (Folkman, 1984; Lazarus & Folkman, 1984).

Secondary appraisal evaluates the available coping resources or options that can be used to overcome or prevent harm or to improve the possibility of gain (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986, p.993). Involved in secondary appraisal is the assessment of whether or not the person can implement a given coping strategy and the likelihood that the given coping strategy will result in the desired outcome (Lazarus & Folkman, 1984). Primary and secondary appraisal operate interdependently to determine the meaning of every encounter (Folkman, 1984). It is the relationship between the appraisal of the intensity of the demand and the appraisal of the perceved available coping resources that determines the severity of the stress response.

Stress

Stress is the result of a perceived imbalance between the intensity of a demand and the possible resources to cope with it. A stress reaction has three main components: physiological, cognitive, and behavioral. The physiological component includes symptoms such as increased heart rate, respiration rate, muscle tension, and decreased skin temperature in the extremities (Rice, 1987). Cognitive reactions to stress involve a heightened appraisal of threat, exaggeration of the nature of the demand, a negative misperception of one's coping ability, rumination, and self-amplification (Hiebert, 1983). Behavioral indicators of stress are hyperactivity of the motor system and shakiness (Hiebert, 1983).

Experiencing some level of stress is normal, however prolonged stress can threaten health. Transitory stress occurs when demand characteristics are perceived to decrease or coping attempts are perceived to be effective in reducing the demand-coping mismatch. Little health risk accompanies transitory stress since coping is perceived as adequate and the system returns to normal quickly (Hiebert, 1988). However, if the demand persists or coping attempts are perceived as continuing to be ineffective, chronic stress results. This

type of stress is characterized by a prolonged period of arousal with no return to homeostasis (Hiebert, 1983). It is important that people be aware of their bodies' reaction to a demand in order to manage stress before it reaches the chronic stage.

Factors Influencing Stress. The stress research has made a point of distinguishing between two types of variables that have differential influences on the stress response: a moderator variable and a mediating variable. Colten and Gore (1991) define a moderating variable as one that is thought to alleviate the negative health effects in those people who experience high levels of stress. Among those variables that have been found to have a moderating effect on stress are coping style (Lazarus & Folkman, 1984), social support (Compas et al., 1986), and physical exercise (Zeidner & Hammer, 1990). Alternately, mediating variables provide a link or bridge between a life change or stressful event and resulting health and adaptation (Colten & Gore, 1991). Examples of variables that mediate the stress response are the specific coping strategies used (Aldwin & Revenson, 1987; Zeidner & Hammer, 1990), both primary and secondary appraisal (Lazarus & Folkman, 1984), and self-talk specifically regarding coping ability (Uhlemann & Plater, 1990).

Common in the literature are investigations of the mediating effects of perceived control and self-efficacy on the stress reaction before an attempt is made to cope (Folkman, 1984; Litt, 1988; Petrosky & Birkimer, 1991). Control is defined as the belief that people have at their disposal a response that can influence the aversiveness of an event (Litt, 1988, p.243). This definition suggests that control, in order to be an effective mediator, need not be overt or even reality-based, but only exist as a perception. Self-efficacy beliefs are those beliefs that one has the ability to behave in such a way as to produce desirable outcomes (Bandura, 1977). These beliefs play their role as part of the secondary appraisal process in helping indivduals evaluate their available coping resources.

Coping

Contemporary theorists define the coping process as constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands (Carver,

Scheier, & Weintraub, 1989; Lazarus & Folkman, 1984). For these theorists, coping is defined independently of outcome. This differs from the everyday use of the word coping. In lay terms to say a person has 'coped' implies that he/she has successfully dealt with a difficult situation. According to the transactional model, coping is concerned only with efforts to manage the demand regardless of their success.

Coping can take on two forms. The first is stressor management, or problem-focused coping, which refers to the efforts focused on managing the demand itself or reducing the demand-coping imbalance. This can be accomplished by either reducing the demand to a manageable level where the person's resources are adequate to deal with it or by learning new coping strategies to better deal with the existing demand (Hiebert, 1991). The second form of coping is stress management, or emotion-focused coping, and serves to reduce the physiological, cognitive or behavioral arousal associated with the stress response. This typically involves some type of relaxation training or cognitive or behavioral control technique to aid in calming the stress response (Hiebert, 1988; Mechanic, 1983). These two forms of coping may be equally effective in reducing stress.

Coping as a Process. Like stress, coping has been conceptualized in many different ways; and also like stress, the earlier approaches are not comprehensive. In a review of traditional approaches to coping, Lazarus and Folkman (1984) describe conceptualizations of coping as: (a) a personality trait, which predisposes people to react in certain ways in any type of situation, and (b) a style, which refers to broad ways of relating to particular types of people or situations depending mostly on the characteristics of the event rather than on the personality of the person (pp. 120-121).

Coping is best understood as a process since it refers to changing efforts on the part of the person to either alter the demand characteristics of a stressful situation or regulate the emotional reaction to the situation. Coping efforts change on the basis of perceived effectiveness of previous coping efforts and changes in primary and secondary appraisals. A classic example of this is demonstrated by Folkman and Lazarus (1985) in which they

studied college students through three stages of a college examination: 2 days before the midterm, 5 days after the midterm and 2 days before the marks were returned. Their results showed that as appraisals changed over time so did the types of coping strategies implemented. At Time 1, when appraisals of threat and challenge were prevalent, most students engaged in some form of problem-focused coping. There was a marked decrease in the use of problem-focused types of coping from Time1 to Time 2 as well as an increase in forms of emotion-focused coping. At Time 3 when harm and benefit appraisals were present, students sought different types of social support. The conclusion is therefore, that more than one coping effort is used as appraisals of the situation change and multiple coping strategies are effective for managing a demand.

According to Lazarus (Lazarus & Folkman, 1984), of paramount importance when studying the coping process, three conditions must be met. They are: (a) coping must refer to specific thoughts, feelings and acts rather than to what a person reports he or she might or would do; (b) coping must be examined in a specific context; and (c) it should be studied over time so that changes can be observed in what is thought, felt and done as the requirements and appraisals of the encounter change. All of these requirements should be fulfilled in order to get an accurate picture of the coping process.

Factors Influencing Coping. The literature has identified some important variables that have been shown to influence coping. They are: personality dimensions such as optimism/pessimism, locus of control, and self-esteem (Carver, Scheier, & Weintraub, 1989); secondary appraisal specifically in terms of perceived controlability of the situation (Folkman, 1982); and situational factors such as people involved in the situation and the nature of the episode, i.e., related to work, family, or health (Folkman, 1982).

Perceived control can also influence coping (Folkman, 1984; Petrosky & Birkimer, 1991). Control, as it influences coping, can be considered in three ways. The first is as a generalized belief concerning the extent to which the individual can control the outcome of a situation. These are among the beliefs that influence primary appraisal on the basis of

external vs. internal locus of control The second is as a situational appraisal of the possibility for exerting or feeling control in a specific encounter. Situational appraisals are part of secondary appraisal and are products of evaluation of the demand characteristics and available coping resources. Control can also be viewed as the coping attempt itself in which one's cognitive and behavioral efforts are exercised to seek control in the encounter.

Summary

The four components of the transactional model of stress are the demand, the cognitive appraisal of the demand and available coping resources, the stress response and the methods used to cope with the demand. When a situation is encountered that requires action, that situation becomes a demand. The demand is then appraised in terms of its characteristics as well as in terms of the resources the person has available to deal with it. Based on these appraisals, the person then engages in some type of coping response. The effectiveness of this response is evaluated, the situation is reappraised, another attempt to cope is made, and the process continues. The important cornerstone of this theory is that the four components influence each other. They act together in order to achieve a balance (or imbalance) between the demands of a situation and the resources used to cope.

Lazarus (1966) contends that this transaction between the person and the environment is qualitatively different depending on age and developmental stage. The remainder of this section will discuss stress, demands and coping as they relate to older adolescents.

Stress and Coping in Later Adolescents

Literature focusing on adolescent behavior has increased steadily and has become a more serious area of research in the last 20 years (Berzonsky, 1983). This research has attempted to determine the extent of adolescents' abilities to deal with the developmental and physical changes occurring and how this relates to adaptation in adulthood. The following section describes the possible effects stress can have on adolescents, the kinds of demands that older adolescents may find stressful, the influence of early adulthood and the

transition to university, the coping repertoires of older adolesescents, and the role that perception and control play in adolescent stress responses.

Effects of Stress on Adolescents

Many researchers have documented the effects that stress can have on adolescents (Dixon, Heppner, & Anderson, 1991; Mechanic, 1983; Tyerman & Humphrey, 1983). Stress is shown to have negative effects on both the adolescents' physical and psychological well being and can result from both major life events and daily hassles (Miller, Wilcox, & Soper, 1985; Rowlison & Felner, 1988). Specifically, adolescents who experience consistently high levels of stress can become depressed, impulsive, aggressive, antisocial, self-destructive, irritable and suicidal (Dixon et al., 1991; Omizo, Omizo, & Suzuki, 1988). Newcomb, Huba, and Bentler (1981), in a study involving older adolescents, found that stressful life events were significantly related to increased emotional disturbances, and more frequent accidents and illnesses. These research findings confirm that adolescents who can not effectively deal with stress are at risk for experiencing medical and/or psychological problems.

Demands of Later Adolescence

Evidence exists that unique demands exist for individuals at varying age levels within adolescence (Compas et al., 1987; Magnusson, 1982). The demands perceived by older adolescents are many and diverse. Newcomb et al. (1981) estimate that adolescents at this age can experience up to nine stressful events in one year. Of significant importance to this age group is the decision whether to enter the work force or to continue their education. While still in high school, adolescents report a significant amount of time worrying about the pros and cons of moving to higher education (Hayes, 1981; Mazzuca, 1983; Omizo, Omizo, & Suzuki, 1988). Therefore, the post-secondary experience is causing some anxiety before adolescents have even decided to enroll in higher education.

There are some studies that focus only on the demands faced by older adolescents. Those adolescents still seniors in high school named future oriented demands such as

making career decisions, attaining higher education, earning money, adopting more responsibilities, and moving away from home as somewhat stressful (Compas et al., 1987; Omizo et al., 1988; Stark, Spirito, Williams, & Guevremont, 1989).

For those adolescents in a post-secondary setting, the most frequently reported stressors include school related demands associated with exams and time management, relationship worries and worries about the future (Fanshawe & Burnett, 1991; Gersten, Langner, Eisenberg, & Orzek, 1978). Staik and Dickman (1988), in an in-depth investigation of those situations that first year college students find demanding, asked students to rank order the situations they found stressful in terms of the level of stress experienced. The most common self-reported stressor in ranks one and two was academic concerns and second most common in rank one was time management concerns. Ranks two, three and four revealed stressors stemming from friendship and campus life issues, employment and finance concerns, and personal issues respectively. The experience of adolescent freshmen is clearly one that is filled with many potential stressful situations ranging across the personal, familial, and academic areas of life. While adolescent freshmen are dealing with the demands that accompany the life of a first year student, they are also attempting to manage the more psychological demands that acompany this life transition.

The Transition to University. Adolescents are at a time in their lives when they face changes in their biology, cognitive structures, social network, emotional development, and moral beliefs (Petersen & Spiga, 1982; Schneider-Fuhrmann, 1986). As they become older, these changes have, for the most part, become solidified (Levinson, 1986). However, for later adolescents, the transtion to university has its own challenges that distinguish it from the previous adolescent years. Reischl and Hirsch (1989) state that "Leaving the parent's home and entering college not only marks the start of this normative developmental transition, it also represents a "transitional event" involving a restructuring of the individual's social environment (p. 56).

The research has indicated consistently that adolescents struggle with an 'identity crisis' during this transition. Adolescents attempt to separate from parents and family in a healthy and adaptive way as well as fight to maintain a sense of who they are as individuals (Hayes, 1981; Kenny & Donaldson, 1991; Lapsley, Rice, & Shadid, 1989).

The literature examining the separation process shows that most first year students experience some degree of acute loneliness, isolation, and longing for the lost home and parents (Berman & Sperling, 1991). Some also show evidence of problems in terms of social adjustment and personal-emotional adjustment (Lapsley, Rice, & Shadid, 1989). Fisher and Hood (1987), in a study of adolescent freshmen, found that all students showed a rise in psychological disturbance in terms of depression and absent-mindedness. A finding of relevance is that those students who report high levels of homesickness also show higher levels of anxiety, depression, somatic and obsessional symptoms, cognitive failure and poor adaptation to the college environment than those who report low levels of homesickness. Important research in the area has been done by Compas et al. (1986). They investigated the relationship between life events and psychological symptoms during the transition from high school to college. The result of this research lends support to the transactional model (Lazarus & Folkman, 1984). Findings showed that life events and psychological disturbance effected each other, thus supporting the concept of reciprocal paths of influence.

The devlopmental transition combined with the physical move to a new environment has the potential to be the root of some very stressful demands for adolescent freshmen. However, there are other more specific factors that can influence the stress experience.

Factors Influencing the Stress Experience of Adolescents. Two identified variables which affect stress that are relevant to adolescents are: perception of demand, and perceived level of control in dealing with the demand (Petersen & Spiga, 1982).

Some research has been done investigating the nature of adolescent perceptions. Compas, Davis, Forsythe, and Wagner (1987) determined that younger, middle and older adolescents could be differentiated based on their perceptions of events. Middle and late adolescents can be distinguished by their perceptions of impact that events had on their lives with late adolescents describing a greater impact. Early, middle and late adolescents can also be distinguished on the basis of perceived desirability of events. Magnusson (1982) concurs with these results. His research findings showed that older adolescents refer to psychological consequences of situations such as anticipated shame, guilt, or lack of personal integrity. Later adolescents also refer to anticipated consequences in future terms.

The findings regarding the role that perception plays in the entire college experience are mixed. Perl (1982), in studying college freshmen, found that expectations and perceptions of what actually occurred were significantly different. Specifically, perceived levels of competitiveness, academic achievement orientation and traditional heterosexual interaction was lower than initial expectations. Conversely, Holdaway and Kelloway (1987) in a study of Alberta university freshmen, found that when initial expectations were compared to perceived outcome, most students had initially expected academic demands to be far less than was actually the case. Therefore, the comparison of initial expectations and actual outcomes may depend on individual appraisal of demand characteristics and the effectiveness of resulting coping efforts.

By the time adolescents reach post-secondary age, they have developed stable personality characteristics. Of interest is the manner in which situations are evaluated according to the internal-external locus of control continuum, what some have called the single most important personality dynamic associated with achievement (Schneider-Fuhrmann, 1986). Adolescents with more of an internal locus of control believe that individuals are in control of their own successes, whereas adolescents with a higher external locus of control believe that elements of control reside outside of themselves in

factors such as luck, chance, or unfair circumstances. Siddique and D'Arcy (1984) conclude that the intensity of health consequences is different for adolescents, depending on their perceptions of stress as being within or outside their control. In support of this, Petrosky and Birkimer (1991) found that those adolescents who report a more internal locus of control also report less anxiety and depression than those who report an external locus. Perceived control is therefore an important component to consider when studying adolescent stress.

Summary

For those adolescents choosing post-secondary education, the situations they experience can be quite demanding. They must adjust to a new environment, and strive to meet the academic demands stemming from the requirements of the institution as well as the internal expectations each individual puts on him/her self to achieve. As well they are also facing the developmental phase of the transition to adulthood, in which adolescents must separate from parents and family and struggle to maintain a strong sense of identity. How adolescents perceive events, and the control orientation they have developed, are important factors in understanding older adolescent behavior and should be included in an investigation of adolescent demands and stress.

The Coping Process in Adolescents

The recent coping literature pertaining to adolescents discusses the importance of investigating and understanding the nature of adolescent coping behaviors in order to tailor interventions to meet their specific needs. The consensus is that coping behaviors developed in adolescents shape those used in adulthood (Compas, 1987; McCubbin & Patterson, 1986; Stark et al., 1989). As a result maladaptive or ineffective coping responses should be attended to and changed during adolescence in order for more appropriate coping to take place in adulthood.

There are very few studies researching the effects coping has on stress levels in adolescents. Ziedner and Hammer (1990) and Allen and Hiebert (1991) agree that

adolescents with greater coping resources report lower levels of stress. Those adolescents using more stress reducing behaviors are less likely to report symptoms at a later point in time.

Much of the literature on adolescent coping focuses on the specific coping repertoires of adolescents. It is unfortunate that little research has been done to investigate how adolescent freshmen cope with the multiplicity of demands of first year college and the early adult transition. Fanshawe and Burnett (1991), in a study of high school students, found that the most common strategies used by this age group were avoidance by alcohol or drug use, getting angry and taking troubles out on others, positive avoidance, and seeking emotional social support. However, it is likely that few of these strategies will be effective in the long term for managing the demand or relieving stress. These results differ from those of Patterson and McCubbin (1987). Here, it was found that the most commonly used coping strategies in adolescents are: relaxing to manage the tension, taking direct action to solve problems and make decisions, and seeking social support from a counsellor or teacher. These may be regarded as more healthy and adaptive coping responses. The results of Jorgensen and Dusek (1990) concur. They found that coping efforts such as relaxing to alleviate stress, using supports such as counsellors and teachers, working to improve coping efforts, and using more positive self-talk are correlated with more optimal adjustment in adolescents.

All of these studies however, are missing an important link. They fail to connect the coping response to any particular demand. The results clearly indicate that different situations require the use of different coping strategies, but the reasons why are unclear. A first step to clarifying the relationship between demands and coping is to identify what it is about the situation that adolescents find demanding. Pearlin and Schooler (1978) and Folkman and Lazarus (1984) propose that it is necessary to examine coping in the context of the problems with which people have to contend. For example, a situation as generic as relationship problems or academic concerns, there are a multitude of differing demand

appraisals. In order to determine the appropriateness of a coping response, it is necessary to determine the exact nature of the demand specific to the adolescent.

Coping With the Transition to University. Most studies investigating the transition to university are concerned with the effects that this move has on psychological well being (Berman & Sperling, 1991; Fisher & Hood, 1987). Very few have examined what it is that adolescents did to negotiate the transition successfully. However, Reischl and Hirsch (1989), in studying a group of adolescent freshmen on academic probation, found that identity-consonant coping responses were most effective. Adjustment was measured in terms of depression, college life satisfaction and academic performance. For socially oriented students, depression was lower and life satisfaction and grades were higher to the extent that they engaged in a variety of social activities. Academically oriented students, on the other hand benefitted from responses such as taking less difficult classes and more enjoyable classes. This is consistent with the transition research which acknowledges that adolescents during this transition are attempting to solidify previous identities and also form new ones. A new identity for those in a post-secondary setting is that of post-secondary student, which is qualitatively different from high school student in terms of freedom, responsibility and expectations (Mazzuca, 1983). How demands relevant to this new identity are dealt with depends to a great extent upon the orientation that this new identity takes.

Factors Influencing the Coping Process in Adolescents. The factors that have been found to influence the coping process were discussed in a previous section. Little research has been done that investigated these variables as they pertain to adolescents and an extensive literature review failed to produce any studies dealing with the influence of perception on coping processes.

Some empirical research has been done on the influence of control in the coping process in adolescents. Compas (1987) determined that those adolescents with an internal locus of control showed greater success than those with an external locus of control in

achievement contexts. Those with an internal locus of control used coping strategies such as developing problem solving strategies, generating alternative solutions, and seeking task-relevant information. Similar results were also found by others (Carver, Scheier, & Weintraub, 1989; Folkman, 1985; Petrosky & Birkimer, 1991). All conclude that those adolescents who perceived the situation as being within their control used more planning and active coping strategies, whereas those who perceived the situation as being out of their control used more denial and disengagement strategies.

Summary

Clearly, in studies of adolescence, all three conditions set by Lazarus and Folkman (1984) require important consideration. When studying coping across time, it is important also to investigate the nature of the demands. Although stress research has acknowledged that appraisal and coping do change over time, it has scarcely looked at how perception of demands also change over time. To know that appraisal and coping change over time is not useful unless it is known what the nature of the demand is that is being coped with. Thus the coping literature specific to adolescents has failed to investigate coping as a process and as it relates to a specific demand. Neither has it determined how adolescent freshmen attempt to cope with the multiplicity of the demands they face.

Chapter Summary

This chapter has focused on the transactional model of stress and coping. It has described in detail the four main components that make up the model: demands, appraisal processes, the stress response and the coping process. A discussion of factors that influnce the stress reaction and the coping response was provided with an emphasis on the effects of perceived control. This was followed by an integration of the stress and coping research literature that pertains to adolescents specifically those in a post-secondary setting. Provided in this section was a discussion of the adolescent-adulthood transition. The chapter concluded with an examination of where this research has fallen short in its investigation.

Research Questions

Based on the transactional model of stress and coping and the cited literature on demands, stress and coping in adolescents, the present study assessed changes in coping strategies and demands over one academic year. Specifically, the general purpose of this study was to examine the link between the demands that first year students face and their attampts to cope with those demands. The specific demands that first year students faced were assessed during one academic year as well as the nature of these demands. Coping responses were assessed as they relate to the nature of the demand and were examined as a they changed over time. The demands and coping strategies were compared to the experienced level of stress and depression. The research investigated the following questions:

1. What are the most common demands that first year post-secondary students find stressful?

2. What is it about the situation that students find stressful?

3. What methods do students use to cope with these stressful situations?

4. How appropriate are the reported coping strategies given the nature of the demand?

5. How do stress and coping relate to reported depression?

6. How do stress and coping change accross time to accommodate differing demands?

7. What relationship does control have to the reported stress levels and the coping strategies used?

8. What demographic differences exist in coping styles?

Chapter 3

Method

Sample

The sample was drawn from a pool of volunteers from a provincial technical institute in a medium sized Western Canadian city. The volunteer pool consisted of 107 adolescent freshmen, 51 males and 56 females. From this a random sample of 32 males and 31 females was drawn who were to receive questionnaires. Those who returned questionnaires comprised the sample at Time 1 which consisted of 49 students, 25 males and 24 females. Due to academic attrition and study dropout, the sample at Time 4 consisted of 28 subjects, 12 males and 16 females. Unfortunately, it was not possible to determine the reasons for attrition from this study. All of the subjects are single and no subjects have children. Of all the participants, 15 entered post-secondary education directly from high school, and 13 had spent at leat one year working, travelling or upgrading for admittance into post-secondary education.

Measures

Inventory of Student Demands

This questionnaire was developed by a research team to assess demographic information as well as information regarding the demands and coping processes used by students. The demographic questions inquired about such things as age, gender, marital status,previous education, and experiences since leaving high school. The questions in the remaining section were based on the transactional model of stress and coping (Lazarus & Folkman, 1984) and covered the four main components of the theory: the demand, appraisal of the demand and available coping resources, the stress experienced and the coping process.

The process for developing the ISD included several steps. First, other open ended questionnaires examining stress and coping were reviewed and relevant items were extracted. Second, the relevant items were arranged in questionnaire form and given to two

other graduate students for comments and reactions regarding readability and understandability. Appropriate corrections were made and the resulting questionnaire was given to three experts in the field for reactions and suggestions. The resulting questionnaire was given to a pilot sample who, in addition to completing the questionnaire, also provided feedback which was incorporated into subsequent versions of the ISD. The final version of the questionnaire is presented an Appendix A.

Lazarus and Folkman (1984), Hiebert (1987) and Magnusson (1982) agree that individual perception of both demand and available coping resources is important. To assess this, open-ended questions inquiring into the nature of the demand and why specific coping strategies were chosen were included. To quantify individual perceptions, questions regarding perceived control, perceived effectiveness of coping efforts, and perceived confidence in coping ability were asked with partcipants responding on a Likert scale ranging from 0 to 5. The coping process was assessed by asking how the demand was being dealt with presently and how it was to be dealt with in the future. In order to provide continuity to individual experiences questions regarding future demands and relevant coping strategies were also included.

Coping

To detemine specific coping methods used, the COPE (Carver, Scheier, & Weintraub, 1989) was included in the questionnaire package (see Appendix B). Respondents are asked to indicate the frequency with which specific strategies were used on a Likert scale ranging from 1 (not at all) to 4 (a lot). The score for each scale is determined by adding ratings given to each item on the scale. The COPE consists of 15 scales having 4 items each. Five scales measure distinct aspects of problem-focused coping (Active Coping, Planning, Supression of Competing Activities, Restraint Coping, Seeking Instrumental Social Support), five scales measure different aspects of emotion-focused coping (Seeking Emotional Social Support, Positive Reinterpretation and Growth, Acceptance, Denial, and Turning to Religion), and three scales that can not be classified as

either (Focusing on and Venting of Emotions, Behavioral Disengagement, and Mental Disengagement). Two scales: Alcohol and Drug Use and Use of Humor were included in the latter category as exploratory scales.

The COPE posesses good internal consistency and test-retest reliability. All scales have acceptably high internal consistency, with only one scale having an alpha below .60. The test-retest reliability was determined using two different student samples. The scales have correlations ranging from .46 to .86 over an 8 week period and from .42 to .89 over a 6 week period. These correlations suggest that the self-reports of coping tendencies are relatively stable. Scale intercorrelations are relatively low, the majority ranging from -.02 to .37. These low intercorrelations suggest that the scales are accessing distinctly different coping strategies. There is evidence for strong convergent and discriminant validity for the COPE. Convergent validity is demonstrated by positive associations between coping strategies considered functional and personality characteristics ragarded as beneficial as well as inverse associations between less functional coping strategies and desirable personality qualities. Discriminant validity was suggested in 3 ways. First, since the correlations between coping strategies and personality types were not strong, this implies that personality characteristics and coping strategies are not identical. Second, the COPE scales are not strongly correlated with a social desirability scale and third, the other measures of coping studied, monitoring and blunting, are not related to the COPE subscales. The COPE was based on the transactional theory of coping and appears to possess good theoretical validity (Carver et al., 1989).

Depression

The Beck Depression Inventory (BDI) (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) was included to measure level of depression (see Appendix C). Respondents are asked to rate 21 symptoms and attitudesof depression on a scale of 0 to 3 in terms of intensity. Scores are determined by summing the ratings given to each of the 21 items.

Beck, Steer, and Garbin (1988) in a review of the research using the BDI have determined its psychometric properties. The reliability of the BDI was assessed in terms of internal consistency and stability. In a meta-analysis of the BDI's internal consistency estimates, high co-efficient alphas ranging from .73 to .95 were noted. These estimates are based on psychiatric and non-psychiatric populations. Stability was determined using a test-retest design in which clinical estimaes of depression were also used. A review of the research using the BDI showed test-retest reliability to range from .60 to .83 over varying time periods for non-psychiatric populations. Also changes in the BDI scores paralleled those in the clinical ratings, indicating a consistenst relationship between the clinician's perspective and the subject's self report. Individual scores on the BDI were plotted against the clinical ratings for distinct levels of depression. A high degree of consistency was observed at each level of depression.

Determination of the validity of the BDI has focused on four types: content, concurrent, discriminant, and construct. Content validity is high in comparison to the descriptive symptoms in the Diagnostic and Statistical Manual of Mental Disorders (Beck et al., 1988). The BDI shows strong positive relationships with the following concurrent measures of depression: clinical ratings (M=.60), the Hamilton Psychiatric Rating Scale for Depression (M=.77), the Zung Self-Reported Depression Scale (M=.71), the MMPI Depression Scale (M=.60), and the Multiple Affect Adjective Checklist-Depression Scale (M=.63). Regarding discrimanant validity, recent evidence suggests that the BDI has the ability to discriminate between psychiatric and non-psychiatric populations, between different types of diagnosed depression as well as between depression and anxiety (Beck et al., 1988, p. 90). The BDI has strong construct validity in that is has been able to detect a variety of relationships that have been proposed between depression and selected attitudes and behaviors. It has been positively correlated with sleep difficulty, suicidal behaviors, alcohol consumption, adjustment, headaches, social desirability and stress.

Use of the BDI with college populations is supported (Lightfoot & Oliver, 1985). With 204 university students as respondents, two week test-retest reliability was .90 and co-efficient alpha was .87. Concurrent validity between the previous and revised BDI was .94 and the correlation between level of depression as measured by the two instruments was .86.

Anxiety

The Beck Anxiety Inventory (BAI) (Beck, Brown, Epstein, & Steer, 1988) was used to determine level of anxiety (see Appendix D). The scale shows high internal consistency with an alpha of .92 and item-total correlations ranging from .30 to .71. The scale has a test-retest reliability of .75 over a 1 week period. The BAI has the ability to discriminate different anxious diagnostic groups from nonanxious diagnostic groups. The BDI has good construct validity with a correlation of .51 with the Hamilton Anxiety Rating Scale and .51 with the Cognition Checklist-Anxiety Subscale. In comparison, the BAI shows low correlations with depression as measured by the Hamilton Rating Scale for Depression (p=.25), and the Cognition Cheklist-Depression Subscale (p=.22).

Procedure

A pilot study was conducted during the Spring/Summer term prior to the 1991-92 academic year. This pilot study led to the construction of a coding taxonomy for the Inventory of Student Demands, provided suggestions as to how to improve the questionnaire, and indicated any questions that students may have trouble with.

The subjects for the actual study were greeted in groups at an orientation session prior to the start of classes. At this time the students who decided to volunteer were asked to sign a consent form indicating their willingness to participate (see Appendix E). A random sample from the volunteer pool was drawn and these students were contacted at 4 times during the 1991-92 academic year: during the second week of September (Time 1), the third week of November (Time 2), the second week of February (Time 3) and the second week of April (Time 4). Students were personally given the questionnaire and were

asked to return them via campus mail to the Student Counselling Center or a drop-off box in their respective program office. Those subjects who did not return questionnaires within 1 week were given a telephone reminder. As questionnaires were returned, each subject was given an identifying number.

Content Analysis

From the pilot study data a content analysis was conducted on questionnaire responses to develop a classification system that was representative of subject responses (emic responses), but still consistent with the theoretical literature (etic categories).This classification system is presented in Appendix F. This was accomplished by using the method of constant comparison in which each new response is compared to previously coded responses (Blase, 1986; Washburn, Hiebert, & Phillips, 1990). If the response did not fit in an established category a new one was created and all previous responses were compared to this new category to determine if it would fit better into the new category. Wherever possible, category labels were used that were consistent with the transactional model of stress and coping (Carver et al., 1989; Lazarus & Folkman, 1984). This process was carried out by three researchers to minimize individual subjectivity.

This coding taxonomy was used to code data from the larger study. At each test time a random sample of 5 questionnaires was drawn from all of the returned questionnaires. Each researcher coded the 5 questionnaires independently. The categorization system was subject to modification based on new data. Responses were compared and any discrepancies were disc ussed until consensus was reached and a new decision rule made. After responses had been compared, Cohen's Kappa was calculated over the 5 questionnaires to determine interrater reliability (Cohen, 1960). This process was repeated until a Cohen's Kappa of .90 between each of the 3 pairs of raters was achieved (Bakeman & Gothman, 1986). The following procedure was used to control "coding drift": once the raters had reached 90% agreement, 10 different questionnaires were coded by each of the three researchers. The researchers then met to code a another

random sample of 5 questionnaires and calculate Cohen's Kappa based on these 5 questionnaires. The process was repreated until all questionnaires had been coded.

A system was developed to accomodate new categories created during the independent coding of the 10 questionnaires. If a rater had developed a new category, the inclusion of the category was discussed with the other reseachers until all were in agreement and a new decision rule was made. All previous responses were inspected to determine whether they fit more appropriately into the new category.

All coded data was transferred to a coding sheet with the only the subject number as identifying information. These sheets were kept separate from the questionnaire to ensure the confidentiality of responses. The first page of the questionnaire with the subject's name was destroyed after all Time 4 questionnaires had been received.

Chapter 4

Results

This study was interested in acquiring information on the nature and frequency of demands, coping attempts and stress of adolescents in the transition to post-secondary education. It was also interested in exploring the differences between various demographic subgroups of the sample. The first questions were addressed through a descriptive analysis of the Inventory of Student Demands and the second questions were addressed via a series of MANOVAs on the standardized dependent measures.

Descriptive Results

Demands

A series of frequency calculations were done to determine the rank order of demands from Time 1 through to Time 4. Table 1 reports the frequencies of the top ranked demand according to the global categories. The most commonly reported demands at each time are academic demands, followed by financial demands and relationship demands. Academic demands were ranked number 1 by 63% of the sample at Time 1, 81% of the sample at Time 2, 61% of the sample at Time 3, and 61% of the sample at Time 4.

Table 1.
Frequency of Number 1 Ranked Demand from Time 1 to Time 4.

	Time 1 (n=49)	Time 2 (n=37)	Time 3 (n=31)	Time 4 (n=28)
Academic	31	30	19	17
Finances	8	6	8	5
Relationships	6	1	2	3
Family	1			1
Personal Needs	1			
Employment	1			1
Time Manag't	1			
Health			1	1
Other			1	

Figure 1 reports the frequencies of the top ranked demands at Time 1 according to the subcategories listed in the coding taxonomy. This figure shows that 21 students simply listed 'school' as the demand. However, 7 perceived the demand as pressure to achieve and 3 perceived the course work to be demanding. In addition, the most common demands ranked second, third, fourth and fifth are presented in Appendix G.

Stress

Frequency counts were calculated to determine the distribution of stress associated with the top ranked demand at each time. Table 2 presents the distribution of these stress scores. The table shows that 55% of the sample perceive the top ranked demand as very stressful at Time 1, 74% found it very stressful at Time 2, 73% at Time 3, and 82% at Time 4.

Table 2.

Frequency of Stress Scores Associated with the Number 1 Ranked Demand.

Stress Score	Time 1 (n=49)	Time 2 (n=35)	Time 3 (n=30)	Time 4 (n=28)
0	1		1	1
1	5		1	1
2	7	1	1	1
3	9	8	5	2
4	20	21	14	12
5	7	5	8	11
Mean Score	3.3	3.8	3.8	4.0

* 5= the most stress you ever feel 0= no stress

Due to the fact that almost two-thirds of the sample ranked academics as most demanding, it is interesting to look at this demand in isolation. Table 3 presents the distribution of stress scores at each time for those who ranked Academic demands as Number 1. The table shows that 44% of the sample at Time 1 found Academic demands very stressful, 82% found them very stressful at Time 2, 72% at Time 3, and 73% at Time 4.

	Frequency
1. Academic	31
011 Unspecified	21
012 Achievement	7
015 Course Load/Homework	3
2. Relationships	6
021 Unspecified (Who)	1
0211 Unspecified (What)	1
0221 Unspecified (What)	4
3. Employment	1
032 Seeking Employment	1
4. Family	1
047 Siblings	1
6. Finances	8
061 Unspecified	4
062 Having Sufficient Funds	4
8. Time Management	1
082 Competing Activities	1
10. Satisfying Personal Needs	1
104 Leisure/Socializing	1

Figure 1.

Frequency of Number 1 Ranked Demand at Time 1.

Table 3.

Frequency of Stress Scores Associated with an Academic Number 1 Ranked Demand.

Stress Score	Time 1 (n=32)	Time 2 (n=28)	Time 3 (n=18)	Time 4 (=15)
0	1			
1	4		1	1
2	7	1		1
3	6	6	4	2
4	13	17	7	5
5	1	4	6	6
Mean Score	2.9	3.9	3.9	3.9

* 5= the most stress you ever feel 0= no stress

Nature of Demands

Frequency calculations were done to determine the nature of the demanding situation. Figure 2 represents the frequency of reasons why academic situations are demanding at Time 1. The most common reasons are that: students perceive that there is too much work to do, they have difficulty meeting the standards they have set for themselves, and the work is too difficult. Other reasons include: difficulty meeting the standards set by the institution, insufficient time to complete the work, and difficulty managing time efficiently.

Coping

Frequency counts were done to determine the most commonly used coping strategies across time as measured by the COPE. The results are presented in Table 4. The three most common coping strategies used regardless of demand are Positive Reinterpretation and Growth, Planning, and Seeking Instrumental Support. As can be seen from the table some variation occurs across time indicating that people's coping preferences do change. However, each of the 5 most frequently used coping strategies at Time 1 are in the top 5 at three of the four times and the most frequently used coping strategy at Time 1 is used in the top 5 at each time. This suggests some stability in coping or demands or both.

It is important to note that at Time 1 Acceptance is ranked 11 whereas at Time 2 it is second most commonly used. Generally then, students tend to cope by using the following strategies: Positive Reinterpretation and Growth or making the best of the situation by trying to grow from it, or viewing it in a more positive light; Planning, which indicates thinking about how to confront the stressor and planning one's coping efforts; Active Coping, which means taking action or exerting effort to remove or circumvent the stressor; Seeking Instrumental Support by asking for assistance, information, or advice about what to do; and Acceptance of the fact that the stressful event has occurred and there is not much one can do about it.

Table 4.
COPE Subscales Rank Ordered by Frequency of Use from Time 1 to Time 4.

	Time 1	Time 2	Time 3	Time 4
Positive Reinterpretation and Growth	1	3	1	1
Planning	2	4	2	4
Seeking Instrumental Support	3	5	5	7
Active Coping	4	1	3	2
Seeking Emotional Support	5	7	6	8
Mental Disengagement	6	6	8	5
Venting Emotions	7	9	11	10
Suppression of Competing Activities	8	8	7	6
Restrain from Action	9	10	10	9
Use Humor	10	11	9	11
Acceptance	11	2	4	3
Behavioral Disengagement	12	13	14	13
Turning to Religion	13	12	12	12
Denial	14	15	15	15
Use Alcohol or Drugs	15	14	13	14

	Frequency
1. Academic	13
011 Quantitative Overload	8
012 Qualitative Overload	3
013 Achievement	2
2. Personal Expectations	7
021 Performance	6
022 Motivation	1
3. Time	5
031 Leisure/Time Alone	1
032 Insufficient Time to Study	2
035 Time Management	2
5. Finances	1
055 Affording Education	1
6. Other	1
061 Unspecified	1
7. Family Pressures	1
071 Parents	1
9. Lack of Social Support	1
092 New Friends	1
10. Personal Differences/Conflict	1
101 Living Arrangements	1

Figure 2.

Frequency of Nature of Academic Demands at Time 1.

Table 5 represents the rank ordered COPE subscales by frequency of use only for Academic demands at Time 1. This table shows that the most commonly and the second most commonly used strategies are identical to those used regardless of demand. However, when the top ranked demand is an Academic one, the third most commonly used strategy is Acceptance suggesting that students perceive the demands of academic situations as being beyound their existing skill level to deal with them.

Table 5 .

COPE Subscales Rank Ordered by Frequency of Use for Academic Demands at Time 1.

	Rank Order
Positive Reinterpretation and Growth	1
Planning	2
Acceptance	3
Active Coping	4
Mental Disengagement	5
Venting Emotions	6
Seeking Emotional Support	7
Suppression of Competing Activities	8
Use Humor	9
Restraining From Action	10
Seeking Instrumental Support	11
Behavioral Disengagement	12
Using Religion	13
Denial	14
Alcohol or Drug Use	15

Role of Control

Perceived control was assessed as it relates to stress as well as to coping. A series of cross tabs was done to determine the relationship between stress and perceived control at each time. No discernible patterns emerged from these calculations. When these cross tabs were calculated for specific demands, it was found that higher levels of stress were associated with lower levels of perceived control for relationship and financial demands.

This association did not exist for academic demands. To further investigate this association, Pearson correlations were also done using stress at Time 1 and perceived control at Time 1 for the top three demands. This was only done at Time 1 due to the lack of subjects at subsequent times. Only one correlation reached marginal significance. For academic demands, stress was inversely associated with perceived control (r=-.25, p=.09).

Pearson correlations were computed between perceived control at Time 1 and scores on the COPE subscales at Time 1. The only corrleations approaching significance were between control and: Mental Disengagement (r=.-33., p=.011), Planning (r=.27, p=.03), Use of Humor (r=-.23, p=.06) and Restraint Coping (r=-.19, p=.1).

Inferential Results

To assess differences between various demographic subgroups of the sample, several two by four repeated measures MANOVAs were run in which 2 represents the number of levels associated with a particular demographic variable and 4 represents the four time periods. For each demographic variable, 4 MANOVAs were conducted, one each for the 3 theoretically different dimensions of coping (problem focused, emotion focused, and disengagement) and a fourth for the Beck Depression and Anxiety scales. The statistically significant results are reported below.

Gender

The MANOVA for gender produced a significant omnibus effect on the emotion focused scales, $F(5, 22) = 4.19$, $p<.01$. Post hoc univariate tests indicated main effects on Seeking Emotional Support, $F(1, 26) = 3.16$, p=.09 and Acceptance, $F(1, 26) = 5.41$, p=.03 where, in both cases, females scored significantly higher than did males. Table 6 presents the means and standard deviations on Seeking Emotional Support and Acceptance.

The MANOVA also produced a significant omnibus effect on the problem focused scales, $F(15, 218) = 2.03$, p=.01. Post hoc univariate tests indicated a significant interaction effect on Restraint Coping, $F(3, 78) = 2.03$, p=.04. Post hoc Scheffé tests

indicate that at Time 1 the scores for males are significantly lower than those for females. At Time 2 the scores for males drop and remain significantly different from those of the females. At Time 3 the scores for both males and females changed significantly. Females scored significantly lower at Time 3 than at Time 2 and males scored significantly higher between the two times. There were no significant differences between males and females at Time 4. These means and standard deviations are presented in Table 6 (see Figure 3).

Table 6 .

Means and Standard Deviations for 28 Males and Females on Seeking Emotional Support, Acceptance and Restraint Coping.

		Time				
Variable	n	Time 1	Time 2	Time 3	Time 4	Total
Seeking Emotional Support						
Males	12	9.42(3.78)	8.50(3.90)	8.83(3.27)	7.50(3.42)	8.56(3.81)
Females	16	10.63(3.67)	10.94(3.89)	10.94(3.68)	10.50(2.97)	10.75(3.67)
Total	28	10.11(3.71)	9.89(4.01)	10.03(3.61)	9.21(3.46)	
Acceptance						
Males	12	10.50(3.73)	10.75(2.70)	10.42(1.83)	9.92(1.83)	10.40(3.03)
Females	16	11.88(1.99)	12.19(1.80)	11.38(1.67)	11.63(2.25)	11.77(2.75)
Total	28	11.29(2.89)	11.57(2.30)	10.96(1.77)	10.89(2.22)	
Restraint						
Males	12	8.50(2.27)	7.83(1.95)	9.25(2.14)	8.75(2.18)	8.58(3.15)
Females	16	9.81(2.54)	9.68(2.41)	8.75(1.98)	9.25(2.27)	9.37(3.05)
Total	28	8.89(2.38)	9.25(2.47)	8.96(2.03)	9.04(2.20)	

Amount of Upgrading

The MANOVA for Amount of Upgrading produced a significant omnibus effect, $F(5, 19) = 3.18$, $p=.03$. Post hoc univariate tests indicated a significant main effect for Amount of Upgrading on Active Coping, $F(1, 23) = 6.81$, $p=.02$, in which those who had received upgrading scored significantly higher than did those who received no upgrading. The means and standard deviations are presented in Table 7.

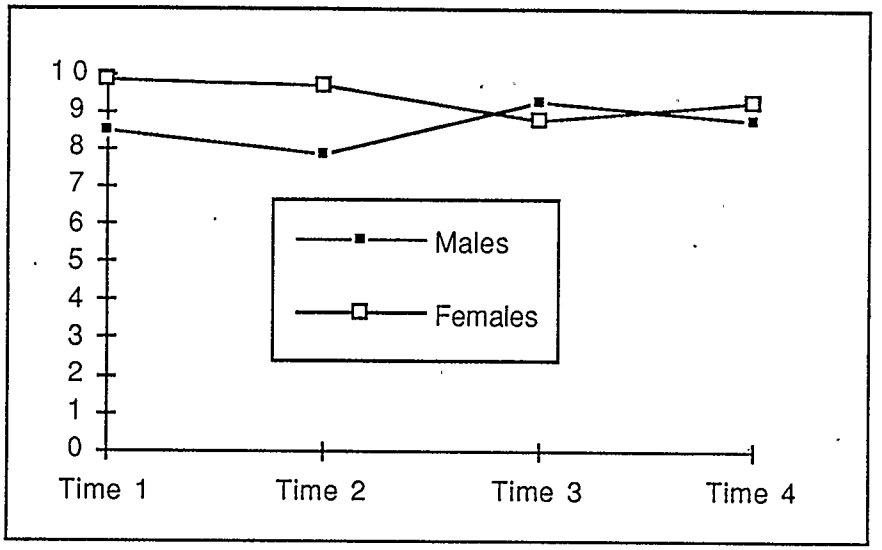

Figure 3.
Mean Scores Over Time for Males and Females on Restraint Coping.

Table 7.

Means and Standard Deviations for 25 Students Having Upgrading and No Upgrading on Active Coping.

		Time				
Variable	n	Time 1	Time 2	Time 3	Time 4	Total
Active Coping						
Some Upg.	7	11.43(2.76)	12.00(2.31)	13.14(1.95)	12.14(2.27)	12.18(2.46)
No Upg.	18	9.83(2.00)	10.11(2.27)	10.06(2.15)	10.44(2.38)	10.11(2.86)
Total	25	10.28(2.30)	10.64(2.39)	10.92(2.50)	10.92(2.41)	

Living Arrangements

The MANOVA for Living Arrangements produced a significant omnibus effect, $F(15, 218) = 2.48$, $p=.002$. Post hoc univariate tests indicated a significant interaction effect for Living Arrangements by Time on Venting Emotions, $F(3, 78) = 5.84$, $p=.001$. Follow up Scheffé tests indicated that there is no significant difference between those who live at home with their parents and those who do not at Time 1. From Time 1 to Time 2 no significant changes occurred for those who live away from home. However, the scores for those who live with their parents dropped significantly to become significantly different

from those who do not live at home. The scores for the two groups were also significantly different at Time 3, but there were no significant changes for either group from Time 2 to Time 3. At Time 4 there were no significant differences in the scores between the two groups, but there was a significant increase in the use of Venting Emotions for those students who live with their parents. The means and standard deviations on Venting Emotions are presented in Table 8 and represented in Figure 4.

Table 8.

Means and Standard Deviations for 28 Students Living at Home and Away From Home on Venting Emotions.

		Time				
Variable	n	Time 1	Time 2	Time 3	Time 4	Total
Venting Emotions						
At Home	13	9.84(3.18)	7.53(2.93)	7.92(2.66)	8.92(3.12)	8.55(3.62)
Away	15	9.07(3.49)	9.33(3.24)	9.80(3.51)	9.07(3.10)	9.32(3.64)
Total	28	9.42(3.32)	8.50(3.18)	8.92(3.23)	9.00(3.06)	

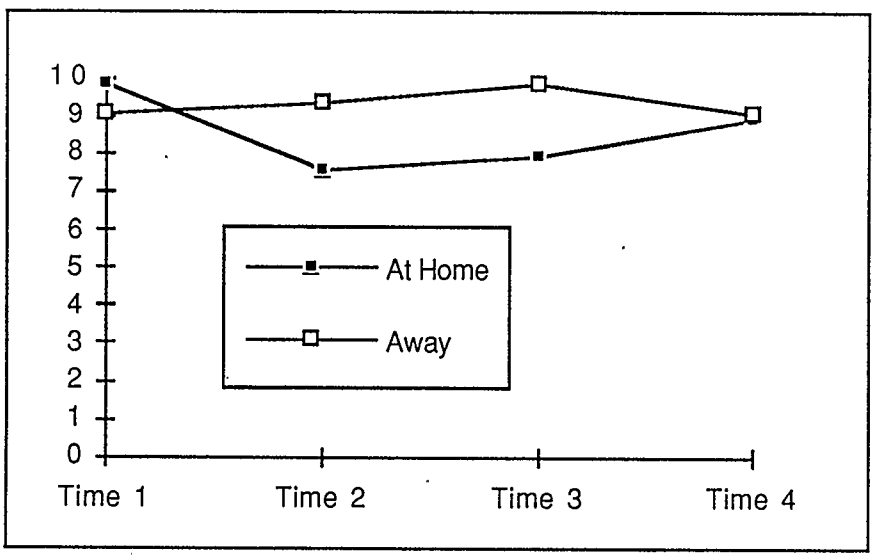

Figure 4.

Mean Scores Over Time for Those Who Live At Home and Away From Home on Venting Emotions.

Work

The MANOVA for Work produced a significant omnibus effect, $F(15, 218) = 2.02$, $p=.015$. Post hoc univariate tests indicated a significant Work x Time interaction effect on Venting Emotions, $F(2, 78) = 2.83$, $p=.044$ and a marginally significant interaction effect on Mental Disengagement, $F(3,78) = 2.48$, $p=.067$. The scores for the two groups did not differ significantly at Time 1. From Time 1 to Time 2 the scores for those who had worked before entering post-secondary education on Venting Emotions dropped significantly and became significantly different from those who did not work. The scores between the two groups remain significantly different at Time 3 . There were no significant changes on the scores for either group from Time 3 to Time 4. There was an insignificant decrease in the scores for those who did not work and an insignificant increase in the Venting Emotions scores for those who did. These insignificant changes over time resulted in an insignificant difference between the groups at Time 4. The means and standard deviations are presented in Table 9 and represented in Figure 5.

Table 9.

Means and Standard Deviations for 28 Students Who Worked and Did Not Work Before Post-Secondary Education on Venting Emotions and Mental Disengagement.

		Time				
Variable	n	Time 1	Time 2	Time 3	Time 4	Total
Venting Emotions						
No Work	13	9.15(3.48)	9.23(3.40)	9.69(3.64)	9.07(3.12)	9.29(3.65)
Work	15	9.66(3.27)	7.87(2.95)	8.27(2.79)	8.93(3.11)	8.68(3.97)
Total	28	9.42(3.32)	8.50(3.18)	8.92(3.23)	9.00(3.06)	
Mental Disengagement						
No Work	13	11.00(2.08)	11.77(2.17)	11.31(1.70)	10.62(2.18)	11.18(2.92)
Work	15	9.00(2.54)	9.33(2.02)	8.60(2.77)	10.07(2.65)	9.25(3.30)
Total	28	9.92(2.51)	10.46(2.40)	9.80(2.68)	10.32(2.42)	

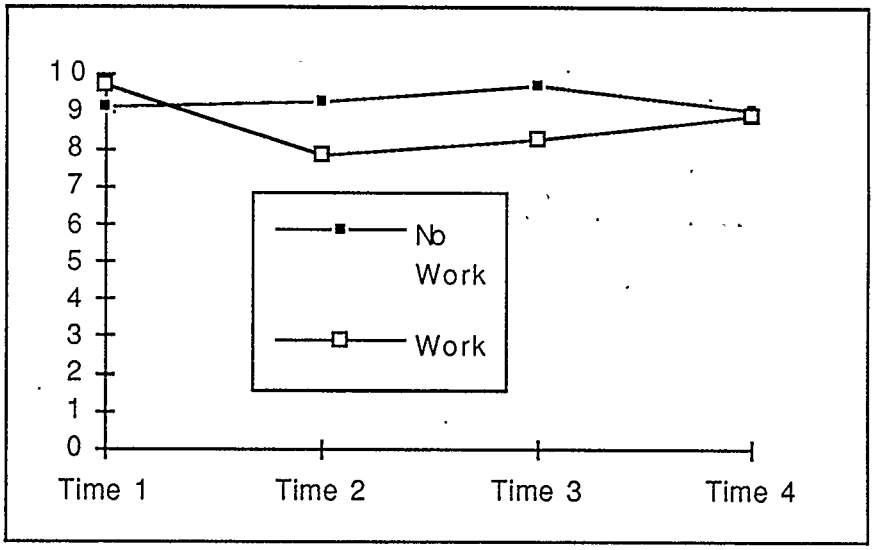

Figure 5.

Mean Scores Over Time for Those Who Worked Before Entering Post-Secondary Education and Those Who did Not on Venting Emotions.

For the scores on the Mental Disengagement scale, those who did not work before entering post-secondary education had significantly higher scores than those who did work. This significant difference also exists between the groups at Time 2 and Time 3. The only significant change that occurred over time was a significant increase for the group that worked between Time 3 and Time 4. The scores between the groups were not significantly different at Time 4. The means and standard deviations for this analysis can be found in Table 9 and presented in Figure 6.

Summary

The results of the MANOVA analyses produced significant Gender effects on the emotion focused scales of Seeking Emotional Support and Acceptance, and significant Gender by Time interaction effects on the problem focused scale of Restraint Coping. A significant Upgrading effect was found for the problem focused scale of Active Coping. Two other significant interaction effects were found. Living Arrangements by Time produced a significant interaction on the disengagement scale of Venting Emotions and a

significant Work by Time interaction was found on the disengagement scales of Venting Emotions and Mental Disengagement.

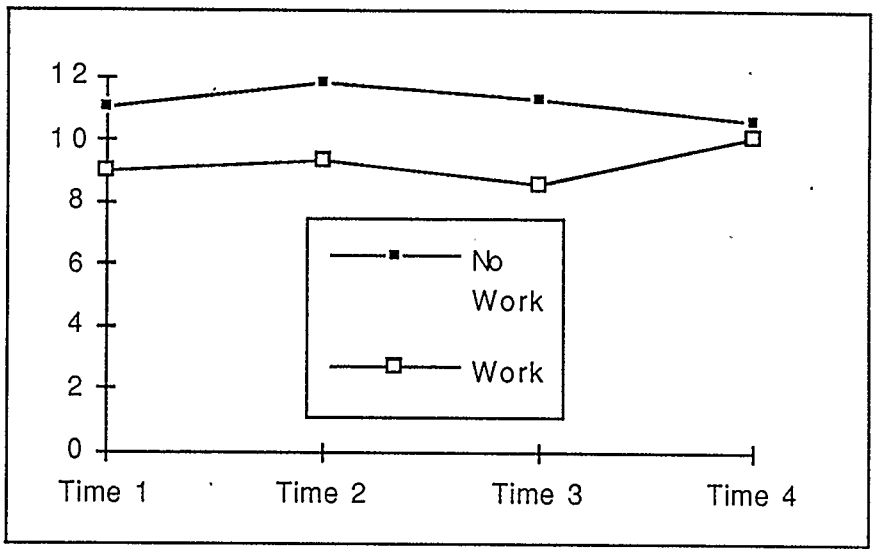

Figure 6.

Mean Scores Over Time for Those Who Worked Before Entering Post-Secondary Education and Those Who Did Not on Mental Disengagement.

Relationship Between Variables

In order to determine the relationship between key variables, Pearson Correlations were computed using the 15 COPE subscales, the Beck Depression Inventory, the Beck Anxiety Inventory and Stress scores at all 4 times. This analysis yielded a 72 x 72 correlation matrix. In order to make sense of these correlation results, the discussion is divided into 3 sections. Discussed first are the associations between stress, depression, and anxiety; then those between stress and the COPE subscales; and finally other inter-relations. Significant associations between stress, anxiety and depression are presented in Table 10. The results show that as time progresses the associations between stress, depression and anxiety become stronger. The correlations also show that the initial rating of stress is correlated with stress scores at subsequent times. This relationship also holds true for anxiety and depression.

Table 10.

Correlations Between Stress, Depression, and Anxiety from Time 1 to Time 4.

	Stres1	Stres2	Sres3	Stres4	BDI1	BDI2	BDI3	BDI4	BAI1	BAI2	BAI3	BAI4
Stres1		.62 (<.01)	.53 (<.01)	.55 (<.01)	.25 (.11)	.17 (.20)	.53 (<.01)	.53 (<.01)	.14 (.24)	.06 (.39)	.29 (.07)	.27 (.08)
Stres2			.44 (<.01)	.40 (.02)	.34 (.05)	.44 (.01)	.37 (.03)	.49 (<.01)	.21 (.15)	.39 (.02)	.22 (.13)	.38 (.03)
Stres3				.57 (<.01)	.56 (<.01)	.32 (.05)	.54 (<.01)	.60 (<.01)	.49 (<.01)	.27 (.08)	.42 (.01)	.37 (.03)
Stres4					.39 (.03)	.20 (.16)	.45 (.01)	.61 (<.01)	.48 (<.01)	.25 (.11)	.43 (.02)	.50 (<.01)
BDI1						.82 (<.01)	.61 (<.01)	.72 (<.01)	.56 (<.01)	.68 (<.01)	.56 (<.01)	.51 (<.01)
BDI2							.66 (<.01)	.66 (<.01)	.23 (.12)	.74 (<.01)	.54 (<.01)	.44 (<.01)
BDI3								.76 (.01)	.31 (.06)	.57 (<.01)	.65 (<.01)	.53 (<.01)
BDI4									.49 (<.01)	.61 (.01)	.66 (<.01)	.77 (<.01)
BAI1										.57 (<.01)	.65 (<.01)	.61 (<.01)
BAI2											.78 (<.01)	.66 (<.01)
BAI3												.72 (<.01)
BAI4												

Note. Probability levels are given in parentheses.

Table 11 represents the relationships between stress at all four times and the scores on the COPE subscales at each corresponding time. High levels of stress are associated with high scores on the disengagement scales of Venting Emotions at Times 1, 3, and 4 and Behavioral Disengagement at Times 2 and 3 and low scores on the disengagement scale of Use of Humor at Time 1. Stress is positively correlated with scores on the problem focused scale of Supression of Competing Activities at Times 1, 3, and 4 and with the emotion focused scale of Denial at Times 2 and 3 and Seeking Emotional Support at Time 4.

Table 11.

Correlations and Probability Values Between Stress and COPE Subscales at Each of 4 Time Intervals.

	Stress1	Stress2	Stress3	Stress4
Positive Reinterpretation and Growth	.28(.07)	-.08(.35)	-.01(.49)	.21(.15)
Active Coping	-.01(.47)	-.31(.06)	-.08(.34)	.07(.37)
Planning	.02(.46)	-.22(.13)	-.06(.38)	.26(.10)
Seeking Emotional Support	.23(.12)	-.19(.18)	.06(.39)	.38(.03)
Seeking Instrumental Support	.18(.18)	-.12(.27)	-.11(.28)	.17(.21)
Suppression of Competing Activities	.38(.02)	.12(.27)	.38(.02)	.43(.02)
Using Religion	-.08(.35)	.21(.14)	.23(.13)	-.17(.21)
Acceptance	.10(.30)	.01(.48)	.17(.19)	.19(.18)
Mental Disengagement	-.21(.14)	.18(.19)	-.05(.41)	.31(.06)
Venting Emotions	.39(.02)	.12(.27)	.35(.03)	.60(<.01)
Behavioral Disengagement	.09(.33)	.35(.04)	.46(<.01)	.31(.06)
Denial	.07(.36)	.41(.02)	.46(<.01)	.29(.07)
Restrain from Action	.13(.25)	.19(.18)	-.03(.45)	.33(.05)
Alcohol or Drug Use	.02(.46)	-.09(.32)	.01(.48)	.13(.26)
Use Humor	-.44(.01)	-.21(.15)	.06(.38)	.13(.26)

Note. Probability levels are in parentheses.

Other Correlation Findings

Other noteworthy associations exist between anxiety and coping and depression and coping. Depression and anxiety scores are more often positively correlated with disengagement scales than with problem focused or emotion focused scales at any given time. At Time 1 depression scores are correlated with those on Venting Emotions (r=.34, p=.04). At Time 2 depression scores are associated with scores on Mental Disengagement (r=.34, p=.04) and Behavioral Disengagement (r=.41, p=.02), At Time 3 moderate associations exist between depression scores and Venting Emotions scores (r=.35, p=.03) and Behavioral Disengagement scores (r=.42, p<.01). At Time 4 depression scores are correlated with the scores on Venting Emotions (r=.39, p<=.02), Mental Disengagement

(r=.46, p<.01), Behavioral Disengagement (r=.45, p<.01) and Alcohol and Drug Use (r=.35, p=.04).

Anxiety scores are correlated with Venting Emotions scores at Time 1 (r=.45, p<.01). At Time 2 anxiety scores are correlated with the scores for Mental Disengagement (r=.39, p=.02) and the scores for Alcohol and Drug Use (r=.35, p=.04). Depression and Venting Emotions scores are correlated at Time 3 (r=.37, p=.04). At Time 4 depression scores are correlated with the scores on Mental Disengagement (r=.56, p<.01), Venting Emotions (r=.39, p=.02), and Behavioral Disengagement (r=.39, p=.02).

The only problem focused scale to be correlated with anxiety and depression is Supression of Competing Activities. The scores are correlated with those of depression at Time 3 (r=.38, p=.02) and with those of anxiety at Time 3 (r=.48, p<.01) and at Time 4 (r=.36, p=.03). Neither anxiety scores nor depression scores are correlated with any of the emotion focused scales.

Interesting correlational findings also exist between the same COPE subscales across time. The strongest correlations for the same coping strategy over time occur for Religion. Correlations range from r=.70, p<.01 to r=.88, p<.01. Strong associations also exist for Venting Emotions which range from r=.70, p<.01 to r=.85 , p<.01.

It is also interesting to note that no significant correlations exist for Acceptance between Times 1, 2, or 3. However, the scores for this scale at Time 3 and Time 4 are significantly correlated (r=.63, p<.01). Much the same relationship exists for the scores on Behavioral Disengagement. There is no significant correlation for the scores on this scale between Time 1 or Time 2. However, there is a significant association between the scores at Time 3 and the scores at Time 4 (r=.64, p<.01). All other scales show moderate correlations between all four times.

Summary

This section presented the significant correlational findings. Generally speaking, students who reported higher stress levels at the start tended to report higher stress levels at

Time 2 , Time 3, and Time 4. Similarly, high levels of anxiety and depression at the initial time suggested high scores on these measures at subsequent times. Further the positive relationships existing between stress, anxiety, and depression at Time 1 tended to become stronger as time progressed. Regardless of time, stress is most often correlated with high scores on the disengagement scales of the COPE with the one exception of Humor in which low scores are associated with high stress levels. Of interest are the scales of supression of Competing Activities and Venting Emotions in which the relationship between these and stress seems to be the most stable. Other general findings also suggest that anxiety and depression are associated more often with high scores on the disengagement subscales of the COPE. The scores on these two measures were associated with the one problem focused scale of Supression of Competing Activities and no emotion focused scales. Correlations between scores on the same COPE subscales over time suggest consistent use of Use of Religion and Venting Emotions across all four times and that Acceptance is used consistently from Time 3 to Time 4 as is Behavioral Disengagement.

Chapter Summary

In order to aid reader understanding the foregoing results are summarized below according to the specific research question they address.

Most Common Demands

The most common demands reported by adolescent freshmen are academic demands. This top ranking for academic demands holds throughout an entire academic year. The second and third most common ranked demands across all four times are financial and relationship demands.

Nature of Demands

Students find academic circumstances demanding for a variety of reasons. Some of these reasons include work overload, difficulty meeting internal as well as external standards and time management difficulties.

Most Frequently Used Coping Strategies

Students cope by using fairly stable coping strategies. They are Positive Reinterpretation and Growth, Planning, Seeking Instrumental Support, Active Coping, and Acceptance.

Appropriateness of Chosen Coping Strategies

Given that one of the most common reasons that students find academic situations demanding is the perception that there is too much work to do, the coping strategies chosen are neither the most appropriate nor the most adaptive. They do not follow directly from the nature of the demand.

Relationship Between Stress and Depression and Coping and Depression

The results indicate that stress and depression were not related initially, however as time passed the relationship between the two became stronger. Elevated depression scores are associated with the more frequent use of disengagement coping strategies.

Changes Across Time for Demands, Stress, and Coping

The top three ranked demands are academics, finances, and relationships. This ranking of demands held over the remaining three time periods. The stress associated with these demands was either maintained or increased as time progressed. Some fluctuations existed in the coping strategies chosen, but generally remained stable over time.

Relationship Between Control and Stress and Control and Coping

Control had no significant relationship with either stress or coping. However, a general patterns exists in which higher levels of stress are associated with lower levels of control. Perceived level of control was marginally associated with scores on Mental Disengagement, Planning, Use of Humor, and Restraint Coping.

Demographic Differences in Coping

Demographic differences in preferred coping strategies exist for gender, amount of upgrading, living arrangements, and amount of work engaged in before entering post-secondary education.

Chapter 5

Discussion

In general, the results of this study found that adolescents who are in their first year of post-secondary education perceive academic situations as the most demanding situations in their lives. As well, self-reported stress levels tended to be higher in reference to academic demands than the other two top ranked demands: finances and relationships. When asked why students found academic situations demanding, the responses varied. The majority of the students reported that it was because the quantity of work exceeded the amount of time they felt they could spend doing it. Other responses included difficulty in meeting internal and/or external standards, and that the work was too difficult for their existing skill level. Given the varying nature of demands, it is interesting to look at how students are coping with academic demands. The most frequently used coping strategy is Positive Reinterpretation and Growth whereby students reframe the meaning of the situation, followed by Planning in which they decide how to deal with anticipated future demands. Along with these two methods, students tend to accept academic demands as unchangeable more than they do other demands. These methods of coping with academic demands remain relatively stable over time. For this sample, perceived control had little bearing on stress levels or coping strategies used regardless of demand.

When the sample was divided into different demographic subgroups, interesting differences in coping between subgroups and for the same subgroup across time emerged. Looking at males and females, females tend to seek emotional support more than males and they have a tendency to "accept the situation as it is" more readily than do males. Over time, males and females differ in "restraining from action" or coping passively by holding back their coping efforts until they can be of use. Females use this method of coping more than males at the outset. However, at Time 3 males use this type of coping more often whereas females drop significantly in their use of restraining from action. Dividing the sample into those who received upgrading before entering SAIT and those who did not

delineated differences in the use of Active Coping. Those students who received upgrading used this method more often than those who did not. Compared to those students who live at home with their parents, those who live away from home tend to vent their emotions more often, but only at Times 2 and 3. At Times 1 and 4 there were no differences between these two demographic groups. When the sample is divided into those who worked before entering post-secondary education and those who did not work, differences were found in the use of Venting Emotions and Mental Disengagement. Those who had not worked vented their emotions more than those who had worked, but only at Times 2 and 3. The only deviation from this pattern for the use of Mental Disengagement was that the above relationship also existed at Time 1.

The Pearson Correlations using stress, anxiety and depression showed that the relationship between the three becomes stronger over time and that initial levels of stress, anxiety and depression are maintained or enhanced as time progresses. High stress levels are associated with more disengagement forms of coping than they are with either problem focused or emotion focused coping. This relationship also exists for anxiety and depression. Correlations between coping strategies over time suggest highly consistent use of Religion and Venting Emotions as reliable coping strategies.

Implications

A major emphasis of this research was to determine the demands that adolescent freshmen face, the nature of these demands, the coping mechanisms used to deal with them and the role that perceived control plays in the stress and coping process. With regard to type and frequency of demands, the findings here are not surprising. They are very similar to those of Staik and Dickman (1988) who found the highest ranked demanding situations were academic ones followed by time management issues and financial constraints. Of particular interest in this sample is that the ranking of demands remained unchanged across all four time periods. This is best explained by examining how adolescents acquire their coping behaviors. Patterson and McCubbin (1987) suggest that younger adolescents

acquire coping behaviors from the following four sources: previous personal experience, vicarious experience associated with observing others, perceptions of their own physiology and inferences they make about their vulnerability, and social persuasion from peers, parents and significant others. Thus, when the demand is post-secondary academics, it seems likely that none of these sources have provided students with the necessary skills to deal with these types of demands thereby maintaining its high frequency across time.

The recent literature is very specific in suggesting that coping must be studied in relation to the demands that people are facing. This research has gone one step further to add that it is not just the demanding situation, but the nature of the demand that is important to consider also. Most students, when asked to list the most demanding situation in their lives, answered 'school'. The findings of this study suggest that this may mean a variety of different things. This has serious implications for the coping strategies chosen. As an example, if the demand is school, it may on the surface make sense to cope by studying more or studying harder. However, if the nature of the demand is that the work is too difficult, seeking help from an instructor or tutor may be a more appropriate course of action. Thus, the demand itself may be consistent across subjects, but it is the reasons for the situation being perceived as demanding that are more variable and determined by individual perception.

Given the results from the investigation of the nature of academic demands, conclusions can be drawn about the coping strategies chosen by the students. The majority of academic situations are demanding because there is too much work to do. Since this is the case, intuitively it would seem that an appropriate strategy may be time management. This is a problem focused form of coping and can be classified as Active Coping. In reality, this type of strategy is used fourth by this sample. When there is too much to do, students reframe the situation, plan for the next stressor, and accept what is happening to them (ie., grin and bear it). Given the nature of the situation, this combination of coping strategies does not appear to be the most adaptive. Further, the fact that stress levels do not

dissipate with experience suggests that the coping strategies chosen by students are not efficient in dealing with the demand and thus reducing stress. In fact, for academic demands, already high stress levels rise after Time 1 and are maintained through subsequent times. The stability of coping over time suggests that even though the coping methods are not effective in dealing with demands or reducing stress, people rely on what they are used to or what their skill level will allow. The results of Compas, Forsythe and Wagner (1988) support this finding. They found that consistent use of coping strategies across time and across situations was related to higher levels of negative affect.

Pearlin and Schooler (1978) suggest that the use of such strategies as Positive Reinterpretation and Growth are an attempt to buffer stress reactions by controlling the meaning of the problem. The way an experience is recognized and the meaning that is attached to it determines to a large extent the threat posed by that experience. Therefore, decreasing the personal meaning of a situation may reduce the threat. This type of strategy may work for the moment. However, this type of coping does not appear to be an effective choice for long term demands.

The increased use of Acceptance is of interest here. From Time 1 to Time 2 this strategy moved from rank 11 to rank 2. It is plausible that a new appraisal in changeability of the situation has occurred. Time 2 was situated after midterms and before finals, thus the reality of the situation may have become apparent to most students. Some students may have realized that their existing skill level may not be adequate to produce what is expected of them.

Perceived control appeared to have little mediating effect on either stress or coping. The general tendency seemed to be that low levels of perceived control were associated with higher levels of stress and higher levels of control were associated with more planning for future stressors, and less disengagement. These results are consistent with the literature. The weak relationship may be inherent in the interpretation of perceived control. According to Folkman (1984) control has two meanings. Control may be interpreted as

being a characteristic of people in that they have the ability to exert control in a given situation or it may be understood in terms of a situational characteristic in that the situation can be controlled in some way regardless of whether it is within the individual's capability. Scores may differ depending on individual interpretation.

These results have implications for the situational versus dispositional viewpoints of coping. Both approaches receive some support. The fact that coping behaviors remained generally stable over time regardless of demand lends support to the dispositional model that coping efforts are part of individual personalities. However, the prevalent increase in the use of Acceptance from Time 1 to Time 2 suggests that even though the demanding situation may be the same, a change in either primary or secondary appraisal has occurred thus leading to major change in coping attempts. This change lends support to the situational model which suggest that coping is dependent upon individual perception of the situation in comparison to the available coping resources.

Differences between the demographic subgroups also deserve comment. The gender differences found are mostly consistent with the literature. Similar to the results of Stark, Spirito, Williams, and Guevremont (1989), females in this sample sought more emotional support than males. This is consistent with the viewpoint that females define their identities by their relationships with others. However, unlike Stark et al. (1989), females in this sample relied more on Acceptance than did males. The results of this study seem more consistent with the theoretical literature in that females tend to rely on more emotion focused forms of coping. The males in this sample also used less Restraint Coping at Times 1 and 2 which is also inconsistent with the previous research. It may be that at these times males engage in some sort of social comparison and are in competition with each other. It may be that to do nothing would be to admit defeat.

It seems that upgrading before entering post-secondary education predisposes students to use more Active Coping. This finding may be attributed to an experience effect. According to Petersen and Spiga (1982) preparation for experiences leads to better coping

and adaptation. This seems to be the case for those who were exposed to the academic experience before actually enrolling in the institution.

The differences between those who worked and those who did not may be attributed to more of a vicarious learning experience. The responsibility of maintaining employment seems to have disciplined these individuals in terms of inappropriateness of emotional outbursts and maintaing focus on what is required. This is supported by lower scores on Venting Emotions and Mental Disengagement for those who were employed before entering post-secondary education compared to those who were not employed.

Interesting differences exist between those who live at home with their parents and those who do not. The fact that those who live at home score significantly lower on Venting Emotions at Times 2 and 3 may be explained in one of two ways. The decrease in the use of this strategy at Time 2 for those who live at home may be a result of conformity to family rules where emotional outbursts are inacceptable forms of behavior. Alternatively, because these adolescents have not yet separated from their parents and families, the level of negative emtions present may be less than for those who have moved away. This explanation is consistent with the transition literature (Compas, Wagner, Slavin, & Vannatta, 1986).

The correlations between coping and stress, depression, and anxiety have significant implications. High levels of stress, depression and anxiety are all positively associated with what may considered maladaptive coping strategies (Aldwin & Revenson, 1987; Folkman & Lazarus, 1986). According to the transactional model coping can either take the form of stress management or stressor management. Maladaptive coping behaviors such as using alcohol or drugs, mental disengagement, and behavioral disengagement serve neither function. This is supported by the finding that high levels of depression are associated with the consistent use of Venting Emotions. The results of Coyne, Aldwin, and Lazarus (1981) concur.

The positive correlation between the use of Suppression of Competing Activities with stress, anxiety and depression has significant implications for adolescents experiencing the transition to post-secondary education. The implementation of this strategy may be more disruptive to adolescents in their first year even though it is a means of managing the stressful situation. The transition to post-secondary edcation involves a change in lifestyle and the experimentation with new identities of which socializing and making new friends is a major part (Reischl & Hirsch, 1989). Not engaging in these activities for the purpose of concentrating solely on school may be deterimental to social acceptance and adjustment.

In summary, the transition to post-secondary education appears to be characterized by a move to a new situation in which old coping mechanisms are inappropriate for new circumstances. This evidenced by the consistency in coping strategies over time as well as the strong relationship between initial stress levels and stress at subsequent times. Students are quicker to accept an academic demand as unchangeable than they are to seek assistance with them. Life experience such as employment or upgrading seems to result in the use of more adaptive coping strategies.

Strengths and Limitations

The most obvious strength of this research is that it collected data across four time points. This allows for an examination of demands, stress, and coping over time. Multiple examinations make it possible to analyze the stability and/or variability of demands and coping. The analysis of nature of demand signifies that an examination of only the demand is insufficient in determining the appropriateness of coping. The discussion of adaptive versus maladaptive coping strategies suggests that more focus should be placed on the results of the coping attempt and not so much on the effort.

A second strength derives from the procedure adopted to code the ISD data. Although the method of constant comparison described in Chapter 3 was very time consuming, it provided assurance that the data coding scheme accurately reflected the

responses of the subjects. That is to say, the coding procedure allowed the quantification of subject responses without forcing their responses into a predetermined structure. Moreover, the procedure used to correct for coding drift (selecting 5 questionniares at regular intervals, having them coded by the raters, calculating Cohen's Kappa as a stringent indication of inter-rater reliability) provided assurance for the trustworthiness of the coded data.

One limitation of this study is the small sample size. A larger number of subjects would have allowed for a more detailed qualitative analysis. Further, a larger number of subjects would have permitted the comparison of coping procedures accorss different demand categories. Another limitation of the study results from the fact that it was not possible to determine the specific reasons for subject attrition from the study. However, the opinion of professional in the counselling department of the institution is that attrition was due primarily to a high academic attrition rate which in itself is suggestive of the high mortality rate of adolescents who are experiencing this transtion and the fact that many of them are ill-equipped to deal with the transition.

Future Research Considerations

Since this study represents one of the first investigations examining the relationship between demand, coping, and stress for entering technical school students, it is appropriate to discuss the sorts of considerations that future research might address. First, the retention of open ended methodology would allow for the linikng of specific demands to specific coping attempts rather than merely identifying demands or coping attempts globally. Compas (1987) identifies this as a promising method for adolescent research. Second, multiple assessments would make it possible to track changes in demand and/or coping accross time. Two of these assessment times might ideally before high school ends and during the summer before post-secondary school begins to acquire some baseline data. Third, using an open ended questionniare format, the method of constant comparison is a good procdural model for future research. This method allows the quantification of even

complex data sets and thus permits easy comparison of subject responses across time. Moreover, it permits the determination of inter-rater reliability which often is missing in studies using open ended quesionnaires as the method of data collection. Fourth, it would be useful to track subject attrition to permit an examination of the extent to which this occurrence may be a function of factors that this study was not addressing.

Conclusions and Implications for Practice

The present study has significant implications for administrators, counsellors and instructors.

Administrators

Since academic demands are the most frequently reported, it may be necessary to build into students' programs instruction to deal with academic demands. The finding that stress levels increased as time progressed suggests that people's coping success decreased. One possible solution may be the appropriate structuring of programs implementing such strategies as spacing assignments or projects and having flexible due dates.

It may also be the case that some interventions would work better or be more readily received at certain times during the year. For example, Time Management workshops offered in September may not be received well or attended by many. However, in February the need for this type of training may be realized.

Counsellors and Instructors

For counsellors and instructors to most effectively help students, it is necessary to assess the student's situation on four levels. First, the specific nature of the demanding situation should be assessed. Second, the resources the student has been using to deal with the demand should be determined. Third, conclusions should be drawn as to the appropriateness of the chosen coping resources. Fourth, it is essential to do a thorough analysis of this existing skill level of the client before any intervention is implemented. It is important to help clients identify and build on the resources that are already available or to help them develop new resources. Intervention strategies must be careful not to deplete

the individual's already existing coping abilities by adding one more demand to an already overloaded individual.

The observation that males tended to cope more frequently at certain times by using Restraint Coping suggests that in responding to a male student's stress concerns, counsellors and instructors should be careful to assess the prevalence of procrastination, and attitudes such as the ability to work better under pressure. Similarly, when working with female clients, counsellors and instructors should be aware that in response to academic demands females tend to cope by using Acceptance and Seeking Social Support. Therefore, their social network and self-efficacy beliefs should be assessed.

The transition to post-secondary education is a struggle for many students. The individual nature of the transition is a condition of the opportunities available to adolescents as well as by the skills that they have accumulated. These skills may be taxed by students' attempts to manage the demands of post-secondary education. Students will be most succesful in managing this transition if they learn how to recognize what it is about a situation that they find demanding and adjust their coping efforts accordingly. This recognition is not always easy and may involve a trial and error process using different combinations of coping behaviors. Demanding situations exist throughout the lifespan. If they learn the process of determining what constitutes effective coping early in life, adolescents experiencing this transition will be much better equipped to deal with it.

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Appendix A

INVENTORY OF STUDENT DEMANDS - September, 1991

Name _____

Telephone _____

SAIT Program _____

Personal Data

Please try to answer all questions. CIRCLE the number that represents your response, only one response for each question. Thank you.

Example:

1. Place of residence.

1.	Fort McMurray	5.	Medicine Hat
2.	Edmonton	6.	Lethbridge
3.	Red Deer	7.	Other
4.	Calgary		

This respondent lives in Calgary.

1. Sex
   1. Male
   2. Female

2. Age _____

3. Relationship Status
   1. Single
   2. Cohabitating
   3. Married
   4. Separated/Divorced
   5. Widowed

4. Children
   1. No children
   2. 1 child
   3. 2 children
   4. 3 children
   5. 4 children or more

5. Living Arrangements
   1. With parents
   2. With spouse
   3. With partner
   4. With other relatives
   5. With roommate(s)
   6. Living alone

6. Hours employed per week while attending SAIT
   1. 0 hours - not employed
   2. 1-10 hours
   3. 10-20 hours
   4. 20-30 hours

7. Previous Education
   1. Less than grade 12
   2. High school diploma
   3. Some postsecondary education
   4. Completed postsecondary diploma or degree

8. In what year did you complete the required courses for SAIT admission?
   1. 1991
   2. 1990
   3. 1985-1989
   4. 1980-1985
   5. Prior to 1980

9. If you upgraded for SAIT entrance through adult education courses or attended another post-secondary school in the previous 2 years, was it
   1. Full-time (taking 3 courses or more at once)
   2. Part-time (taking less than 3 courses at once)
   3. Not applicable

10. Experience since leaving high school. For this question, circle as many responses that are applicable to you. Indicate the length of time spent in that category by circling the appropriate number in the corresponding right hand column, according to the following:

1. 0-6 months
2. 6 months - 1 year
3. 1-2 years
4. 2-5 years
5. 5 years or more

1. Employed part-time	1	2	3	4	5
2. Employed full-time	1	2	3	4	5
3. Travelled	1	2	3	4	5
4. Educational upgrading	1	2	3	4	5
5. Parented full-time	1	2	3	4	5
6. Unemployed	1	2	3	4	5
7. Other: Please specify	1	2	3	4	5

_____

11. Rate the degree of stress that you are currently experiencing generally in your life.

0 1 2 3 4 5

no stress — the most stress you ever feel

Life Demands:

12. Please rank up to 5 current demands in your life.
Place the most demanding beside Rank 1, the second most demanding beside Rank 2, etc....
In the column on the right, rate each demand from 0 - 5 according to the degree of stress you are currently experiencing as stressful.

0 1 2 3 4 5

no stress — the most stress you ever feel

DEMAND	RELATIVE STRESS
#1	0 1 2 3 4 5
#2	0 1 2 3 4 5
#3	0 1 2 3 4 5
#4	0 1 2 3 4 5
#5	0 1 2 3 4 5

PLEASE ANSWER THE FOLLOWING QUESTIONS USING
THE #1 RANKED DEMAND FROM QUESTION #12.

13. How long have you been experiencing this demand?

_____

14. What is it about the situation that you find demanding?

_____

_____

_____

15. How much personal control do you think you have over the demanding situation?

0	1	2	3	4	5
no control					high control

16. If this demanding situation is not resolved, what are the consequences?

_____

_____

_____

17. Describe the main way that you try to deal with this situation.

_____

_____

_____

18. List the reasons why you try to deal with the situation in this way.

_____

_____

_____

19. How long have you been trying to deal with this situation in the way that you described in question #17?

_____

20. How effective has this way of dealing with the demand been for you?

0 1 2 3 4 5

not at all effective — highly effective

21. Describe the criteria you used to determine the effectiveness of your attempts to deal with the situation.

_____

_____

_____

22. What result do you want to have happen with this demand?

_____

_____

23. How confident are you in your ability to make this result happen through using this way of dealing with the situation?

0 1 2 3 4 5

not at all confident — highly confident

24. How do you intend to deal with this demanding situation in the near future?

_____

_____

_____

25. Indicate with an "X" whether or not you have used any SAIT resources to deal with the demand.
In the column on the right, please rate the usefulness of each resource that you used, on a 0(low) - 5(high) scale.

SAIT RESOURCES	YES	NO	USEFULNESS
1. Counselling Services			0 1 2 3 4 5
2. Employment Services			0 1 2 3 4 5
3. Learning Skills Centre			0 1 2 3 4 5
4. Campus Recreation			0 1 2 3 4 5
5. Learning Resources Centre			0 1 2 3 4 5
6. Campus Health			0 1 2 3 4 5
7. SAIT Instructors			0 1 2 3 4 5
8. Residence Staff			0 1 2 3 4 5
9. Chaplains			0 1 2 3 4 5
10.Registrar's Office			0 1 2 3 4 5
11.Student Association			0 1 2 3 4 5
12.Other (please specify)			0 1 2 3 4 5

26. What specifically about the resources did you find useful / not useful?

SAIT RESOURCE # CHARACTERISTIC THAT MAKES IT USEFUL/NOT USEFUL

_____

_____

_____

_____

27. In the next month, what do you anticipate will be the most demanding situation in your life?

_____

_____

28. In what way(s) are you going to try to deal with this demanding situation?

_____

_____

Appendix B

COPE

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This questionnaire asks you to indicate what you are doing and feeling in response to demanding situations. Please respond to each of the following items by considering your current #1 ranked demand.

CURRENT #1 RANKED DEMAND: _____

Circle a number from 1 to 5 on this sheet for each of the following items. Please try to respond to each item separately in your mind from each other item. Choose your answers thoughtfully and make your answers as true FOR YOU as you can. Please answer every item. There are no right or wrong answers, so choose the most accurate answer for YOU, not what you think most people would say or do in the demanding situation.

1 I don't do this at all

2 I do this a little bit

3 I do this a medium amount

4 I do this a lot

1.	I try to grow as a person as a result of the experience.	1	2	3	4
2.	I turn to work or other substitute activities to take my mind off things.	1	2	3	4
3.	I get upset and let my emotions out	1	2	3	4
4.	I try to get advice from someone about what to do.	1	2	3	4
5.	I concentrate my efforts on doing something about it.	1	2	3	4
6.	I say to myself "this isn't real".	1	2	3	4
7.	I put my trust in God.	1	2	3	4
8.	I laugh about the situation.	1	2	3	4
9.	I admit to myself that I can't deal with it, and quit trying.	1	2	3	4
10.	I restrain myself from doing anything too quickly.	1	2	3	4

11.	I discuss my feelings with someone.	1	2	3	4
12.	I use alcohol or drugs to make myself feel better.	1	2	3	4
13.	I get used to the idea that it happened.	1	2	3	4
14.	I talk to someone to find out more about the situation.	1	2	3	4
15.	I keep myself from getting distracted by other thoughts or activities.	1	2	3	4
16.	I daydream about things other than this.	1	2	3	4
17.	I get upset, and am really aware of it.	1	2	3	4
18.	I seek God's help.	1	2	3	4
19.	I make a plan of action.	1	2	3	4
20.	I make jokes about it.	1	2	3	4
21.	I accept that this has happened and that it can't be changed.	1	2	3	4
22.	I hold off doing anything about it until the situation permits.	1	2	3	4
23.	I try to get emotional support from friends or relatives.	1	2	3	4
24.	I just give trying to reach my goal.	1	2	3	4
25.	I take additional action to try to get rid of the problem.	1	2	3	4
26.	I try to lose myself fro a while by drinking alcohol or taking drugs.	1	2	3	4
27.	I refuse to believe that it has happened.	1	2	3	4
28.	I let my feelings out.	1	2	3	4
29.	I try to see it in a different light, to make seem more positive.	1	2	3	4
30.	I talk to someone who could do something concrete about the problem.	1	2	3	4
31.	I sleep more than usual.	1	2	3	4
32.	I try to come up with a strategy about what to do.	1	2	3	4
33.	I focus on dealing with this problem, and if necessary let other things slide a little.	1	2	3	4
34.	I get sympathy and understanding from someone.	1	2	3	4

35.	I drink alcohol or take drugs, in order to think about it less.	1	2	3	4
36.	I kid around about it.	1	2	3	4
37.	I give up the attempt to get what I want.	1	2	3	4
38.	I look for something good in what is happening.	1	2	3	4
39.	I think about how I might best handle the problem.	1	2	3	4
40.	I pretend that it hasn't really happened.	1	2	3	4
41.	I make sure not to make matters worse by acting too soon.	1	2	3	4
42.	I try hard to prevent other things from interfering with my efforts at dealing with this.	1	2	3	4
43.	I go to movies or watch TV, to think about it less.	1	2	3	4
44.	I accept the reality of the fact that it happened.	1	2	3	4
45.	I ask people who have had similar experiences what they did.	1	2	3	4
46.	I feel a lot of emotional distress and I find myself expressing those feelings a lot.	1	2	3	4
47.	I take direct action to get around the problem.	1	2	3	4
48.	I try to find comfort in my religion.	1	2	3	4
49.	I force myself to wait for the right time to do something.	1	2	3	4
50.	I make fun of the situation.	1	2	3	4
51.	I reduce the amount of effort I'm putting into solving the problem.	1	2	3	4
52.	I talk to someone about how I feel.	1	2	3	4
53.	I use alcohol or drugs to help me get through it.	1	2	3	4
54.	I learn to live with it.	1	2	3	4
55.	I put aside other activities in order to concentrate on this.	1	2	3	4
56.	I think hard about what steps to take.	1	2	3	4
57.	I act as though it hasn't even happened.	1	2	3	4
58.	I do what has to be done, one step at a time.	1	2	3	4
59.	I learn something from the experience.	1	2	3	4
60.	I pray more than usual.	1	2	3	4

Appendix C

Beck Depression Inventory

(Reprinted with permission of the authors)

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling the **past week, including today**. Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. **Be sure to read all the statements in each group before making your choice.**

1 0 I do not feel sad.

1 I feel sad.

2 I am sad all the time and I can't snap out of it.

3 I am so sad or unhappy that I can't stand it.

2 0 I am not particularly discouraged about the future.

1 I feel discouraged about the future.

2 I feel I have nothing to look forward to.

3 I feel that the future is hopeless and that things cannot improve.

3 0 I do not feel like a failure.

1 I feel I have failed more than the average person.

2 As I look back on my life, all I can see is a lot of failures.

3 I feel I am a complete failure as a person.

4 0 I get as much satisfaction out of things as I used to.

1 I don't enjoy things the way I used to.

2 I don't get real satisfaction out of anything anymore.

3 I am dissatisfied or bored with everything.

5 0 I don't feel particularly guilty.

1 I feel guilty a good part of the time.

2 I feel quite guilty most of the time.

3 I feel guilty all of the time.

6 0 I don't feel I am being punished.

1 I feel I may be punished.

2 I expect to be punished.

3 I feel I am being punished.

7 0 I don't feel disappointed in myself.

1 I am disappointed in myself.

2 I am disgusted with myself.

3 I hate myself.

8 0 I don't feel I am any worse than anybody else.

1 I am critical of myself for my weaknesses or mistakes.

2 I blame myself all the time for my faults.

3 I blame myself for everything bad that happens.

9 0 I don't have any thoughts of killing myself.

1 I have thoughts of killing myself, but I would not carry them out.

2 I would like to kill myself.

3 I would kill myself if I had the chance.

10 0 I don't cry any more than usual.

1 I cry more now than I used to.

2 I cry all the time now.

3 I used to be able to cry, but now I can't cry even though I want to.

11 0 I am no more irritated now than I ever am.

1 I get annoyed or irritated more easily than I used to.

2 I feel irritated all the time now.

3 I don't get irritated at all by the things that used to irritate me.

12 0 I have not lost an interest in other people.

1 I am less interested in other people than I used to be.

2 I have lost most of my interest in other people.

3 I have lost all of my interest in other people

13 0 I make decisions about as well as I ever could.

1 I put off making decisions more than I used to.

2 I have greater difficulty in making decisions than before.

3 I can't make decisions at all any more.

14 0 I don't feel I look any worse than I used to.

1 I am worried that I am looking old or unattractive.

2 I feel that there are permanent changes in my appearance that make me look unattractive.

3 I believe that I look ugly.

15 0 I can work about as well as before.

1 It takes an extra effort to get started at doing something.

2 I have to push myself very hard to do anything.

3 I can't do any work at all.

16 0 I can sleep as well as usual.

1 I don't sleep as well as I used to.

2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.

3 I wake up several hours earlier than I used to and cannot get back to sleep.

17 0 I don't get more tired than usual.

1 I get tired more easily than I used to.

2 I get tired from doing almost anything.

3 I am too tired to do anything.

18 0 My appetite is no worse than usual.

1 My appetite is not as good as it used to be.

2 My appetite is much worse now.

3 I have no appetite at all anymore

19 0 I haven't lost much weight, if any, lately.

1 I have lost more than 5 pounds.

2 I have lost more than 10 pounds.

3 I have lost more than 15 pounds.

I am purposely trying to lose weight by eating less. Yes____ No____

20 0 I am no more worried about my health than usual.

1 I am worried about physical problems such as aches and pains; or upset stomach; or constipation.

2 I am very worried about physical problems and it's hard to think of much else.

3 I am so worried about my physical problems that I cannot think about anything else.

21 0 I have not noticed any recent change in my interest in sex.

1 I am less interested in sex than I used to be.

2 I am much less interested in sex now.

3 I have lost interest in sex completely.

Appendix D

Beck Anxiety Inventory

(Reprinted with permission of the authors)

Below is a list of common symptoms of anxiety. Please read each item in the list carefully. Indicate ho much you have been bothered by each symptom during the **past week, including today** by placing an X in the corresponding space in column next to each symptom.

	Not at all	Mildly, it did not bother me much	Moderately, it was very unpleasant but I could stand it	Severely, I could barely stand it
Numbness or tingling				
Feeling hot				
Wobbliness in legs				
Unable to relax				
Fear of worst happening				
Dizzy or lightheaded				
Heart pounding or racing				
Unsteady				
Terrified				
Nervous				
Feelings of choking				
Hands trembling				
Shaky				
Fear of losing control				
Difficulty breathing				
Fear of dying				
Scared				
Indigestion or dis-comfort in abdomen				
Faint				
Face flushed				
Sweating (not due to heat)				

Appendix E

Student Consent Form

I agree to participate in the COPING WITH DEMANDS study during the 1991-1992 academic year.

I understand that at 4 different times, I will be asked to fill out questionnaires related to life demands and coping. All information will be strictly confidential. Only the principal researcher, Nancy Arthur, and the members of the research team will have access to the information. I understand that my participation is voluntary and has no bearing on my academic standings while enrolled at SAIT. Further, I understand that I may stop participating for any reason during the year. At any time during the study, I may contact Nancy Arthur at SAIT Counselling Services, Heritage Hall, M331, 284-7023, for further information.

As of September 1, 1991 my age is 18 years or older.

_____ _____

Please print name Please sign name

_____ _____

Name of academic program Date

_____ _____

_____ Telephone Number

_____

Current Mailing Address

THANK YOU FOR OFFERING TO PARTICIPATE IN THE PROJECT

Appendix F

Inventory of Student Demands

Coding Taxonomy

List of 5 Life Demands:

In the next month, what do you anticipate will be the most demanding situation in your life:

Any sarcastic/question with a question/non answers coded as blanks.

Given two or more demands per one response that is unclear, use the first demand unless one of the two demands has been previously coded, then select the other.

01 Academic
- 011 Unspecified (Includes Education)
- 012 Achievement
- 013 Time
- 014 Exams
- 015 Course load/Homework/Studying/Schoolwork
- 016 Adjustment/Adaptation to student role
- 017 Instructors
- 018 Academic Institutions - Admin./Bureaucracy
- 019 Program/Career Choices (unsure if in right program)

02 Relationships
- 021 Unspecified (Who)
  - 0211 Unspecified (What)
  - 0212 Time
- 022 Significant other
  - 0221 Unspecified (What)
  - 0222 Time
  - 0223 Ex-Significant Other/Current Breakdown
- 023 Spouse
  - 0231 Unspecified (What)
  - 0232 Time
  - 0233 Ex-spouse/Current Breakdown
- 024 Friends
  - 0241 Unspecified (What)
  - 0242 Time (Includes socializing)
- 025 Other acquaintances (eg.roommates, coworkers)
  - 0251 Unspecified (What)
  - 0252 Time
  - 0253 Offering assistance

03 Employment (*Employment* is coded only with respect to self as opposed to others. *Employment seeking* is actually currently looking versus desiring.)

- 031 Unspecified
- 032 Seeking
- 033 Job responsibilities

04 Family

- 041 Unspecified
- 042 Time
- 043 Children's needs
- 044 Family member's employment
- 045 Family pressures - nonacademic
- 046 Parents
- 047 Siblings
- 048 Grandparents
- 049 Death of family member

05 Health

- 051 Unspecified
- 052 Mental Health/Happiness
- 053 Physical Disability

06 Finances

- 061 Unspecified
- 062 Having sufficient funds/Paying bills/Savings
- 063 Providing for family

07 Accommodation (House refers to *Accommodation* and home refers to Family if the response is unclear or vague.)

- 071 Unspecified
- 072 Household duties
- 073 Seeking
- 074 Moving/Adjusting to new home/Leaving old home

08 Time Management

- 081 General
- 082 Competing activities (must have reference to time)

09 Role Conflict

- 091 Unspecified

10 Satisfying Personal Needs (requires a personal referent or a personal activity.)

- 101 Unspecified
- 102 Recreation (i.e.. Activities)
- 103 Physical fitness
- 104 Leisure and socializing (Relaxation; Making friends/Fitting in)
- 105 Sleep/Insomnia
- 106 Time for self/Time alone
- 107 Dieting
- 108 Independence

11 Worrying
- 111 Unspecified
- 112 Future

12 Other (incl. Pets)
- 121 Unspecified

What is it about the situation that you find demanding:

01 Academic
- 011 Quantitative overload (includes pacing and scheduling.)
- 012 Qualitative (Level of difficulty/ Understanding Competitiveness/ Boringness)
- 013 Achievement - external standards
- 014 Instruction/Marking

02 Personal Expectations
- 021 Performance - internal standards (any role not just academic)
- 022 Motivation
- 023 Self-confidence

03 Time
- 031 Leisure/Time Alone
- 032 Studying (Insufficient time to study/Time Mgmt. issue)
- 033 Family/Friends/Significant Others
- 034 Commuting/Travel
- 035 Time Management

04 Worry
- 041 Health
- 042 Family
- 043 Future
- 044 Significant Other
- 045 Stress/Sense of control
- 046 Decision-making

05 Finances
- 051 Paying bills/Debts/Getting a loan/Lack of funds
- 052 Supporting family/children
- 053 Unemployment
- 054 Accommodation
- 055 Affording education
- 056 Affording personal wants/luxuries
- 057 Budgeting

06 Other
- 061 Unspecified
- 062 Do not know
- 063 Nothing/Demand resolved

07 Family Pressures
- 071 Parents
- 072 Relationship Breakdown (Own or someone else)
- 073 Others
- 074 Spouse/Significant Other
- 075 Children's problems

08 Employment (current)
- 081 Qualifications
- 082 Availability/Seeking
- 083 Qualitative Factors

09 Lack of Social Support
- 091 Age Differences
- 092 New friends
- 093 No family/Away from family

10 Personal Differences/Conflict
- 101 Living arrangements
- 102 Significant other

If this situation is not resolved what are the consequences :

01 Academic
- 011 Failure to pass
- 012 Program/Course withdrawal
- 013 Quantitative overload
- 014 Repeat courses/Take evening classes
- 015 Low grades
- 016 Miss classes
- 017 Lack of understanding/comprehension

02 Future
- 021 Goals
- 022 Change plans

03 Relationships
- 031 Deterioration/Break-up/Inadequate social life
- 032 Other's behavior
- 033 Disappointing/hurting others

04 Health
- 041 Stress (Incl. depression or loneliness)/Mental health
- 042 Physical (Incl. death)

05 Personal
- 051 Failure (Only coded if specifically tied to internal standards)/ Disappointment
- 052 Withdrawal/Rejection
- 053 Dependence
- 054 Self-esteem/Identity
- 055 Moodiness

06 Finances
- 061 Debt incurred
- 062 Lack of funds for school expenses
- 063 Fewer purchases
- 064 Lower standard of living

07 Time
- 071 Competing Priorities (incl. giving something up)

08 Accommodation
- 081 Homeless
- 082 Moving

09 None
- 091 Unspecified (Incl. situation was resolved)
- 092 Ambiguity - does not matter (Coded if answer is inappropriate for the question or not sure)

10 Employment
- 101 Dissatisfaction
- 102 Termination
- 103 Secure employment

11 Other
- 111 Legal

Length of Time:

1. 0 - 2 weeks
2. 2 - 4 weeks
3. 1 - 3 months
4. 3 - 6 months
5. 6 - 9 months
6. 9 - 12 months
7. Over 1 year

Describe the main way that you try to deal with this situation:

In what way(s) are you going to try to deal with this demanding situation:

How do you intend to deal with this demanding situation in the near future:

01 Satisfying Personal Needs
- 011 Exercise
- 012 Rest and relaxation
- 013 Find new challenges
- 014 Unspecified

02 Planning (future-oriented)
- 021 Time management
- 022 Unspecified
- 023 Budget/finances
- 024 Organization
- 025 Anticipation of demand
- 026 Saving money
- 027 Career

03 Active Coping (current)
- 031 Unspecified (One step at a time)
- 032 Secure/seek employment or increase hours
- 033 SAIT resources
- 034 Studying (or study harder)
- 035 Confrontive problem-solving
- 036 Seeking accommodation
- 037 Socializing/Recreation
- 038 Upgrading education (Present or Future)
- 039 Non-SAIT resources

04 Acceptance
- 041 Unspecified
- 042 Live with it
- 043 Unpleasant situation

05 Mental Disengagement
- 051 Unspecified
- 052 Avoidance/ignoring
- 053 Reduce worry
- 054 Diversion/Distraction

06 Suppression of Competing Activities
- 061 Unspecified
- 062 Terminating employment/Decrease hours
- 063 Reduce socializing or recreational time
- 064 Decrease workload/Change courses

07 Seeking Social Support for Instrumental Reasons
- 071 Unspecified
- 072 Family assistance
- 073 Friends
- 074 Other students
- 075 Instructors/Tutors
- 076 Boss
- 077 Finances
- 078 Spouse/Partner

08 Restraint
- 081 Wait and see

09 Stress Reduction
- 091 Exercise
- 092 Take a vacation/break
- 093 Unspecified

10 Mental Engagement
- 101 Commitment (Increase effort/try harder)
- 102 Concentration
- 103 Positive Self-Talk (incl. Positive focus)

11 Seeking Social Support for Emotional Reasons
- 111 Unspecified
- 112 Spouse/Partner
- 113 Family
- 114 Friends

12 Positive Reinterpretation and Growth
- 121 Readjust expectations
- 122 Social Comparison
- 123 Unspecified

13 Wishful Thinking
- 131 Hope

14 Other
- 141 Unspecified
- 142 Does not know/Nothing

15 Religion
- 151 Faith in God
- 152 Prayer

16 Alcohol/Drug Use
- 161 Alcohol
- 162 Smoking
- 163 Quitting

List the reasons why you try to deal with the situation in this way:

01 Personal
- 011 Unspecified
- 012 Revitalization
- 013 Maintaining a positive attitude (Incl. motivation/initiative)
- 014 Self-esteem

02 Limited Alternatives
- 021 Only alternative
- 022 Best alternative/Effective alternative
- 023 Unspecified

03 Time
- 031 Unspecified
- 032 Relaxation
- 033 Self
- 034 Time Management/Making time to study

04 Relationships
- 041 Maintaining quality
- 042 Support
- 043 Avoid upsetting others/Decrease tension

05 Goal Achievement
- 051 Academic
- 052 Financial
- 053 Employment/career
- 054 Personal life

06 Challenge
- 061 Unspecified
- 062 Personal Meaning/Importance/Priorities
- 063 Fear of challenge

07 Stress Reduction (incl. references to anxiety)
- 071 Unspecified
- 072 Gaining control

08 Mental Disengagement
- 081 Unspecified
- 082 Distraction/Diversion
- 083 Avoidance

09 Financial
- 091 Security
- 092 Lower costs
- 093 Flexibility in paying bills
- 094 Afford necessities

10 Recommendation/ Referral
- 101 Unspecified

11 Other
    111 Unspecified

12 Mental Engagement
    121 Concentration

Describe the results that *actually happened* in dealing with this demand:

***1 Less than desired outcome
***2 Same as or met desired outcome
***3 Exceeded desired outcome
***4 Undetermined/Unspecified
***5 Other outcome - negative
***6 Other outcome - positive

*** is the three digit code from Q. #10 - Desired outcome

Describe the criteria you used to determine the effectiveness of your attempts to deal with the demanding situation:

01 Academic
- 011 Grades
- 012 Knowledge
- 013 Skill improvement

02 Personal Well-being
- 021 Motivation
- 022 Happiness
- 023 Attitude
- 024 Ability to concentrate
- 025 Physical Health
- 026 Self-concept/Self-esteem
- 027 Sense of control/Stress level
- 028 Amount of worrying
- 029 Quality of Sleep

03 Relationship
- 031 Quality
- 032 Time

04 Other People
- 041 Behavior
- 042 Opinions
- 043 Feelings

05 Employment
- 051 Unemployment
- 052 Maintaining responsibilities
- 053 Securing employment
- 054 Quality of job

06 Other
- 061 Unspecified (Code if question not answered appropriately)
- 062 None - no criteria

07 Financial
- 071 Obtain more money/Amount of money
- 072 Affordability
- 073 Responsible use of money/staying on budget

08 Time
- 081 Academic pursuits/activities
- 082 Personal Leisure/Activities

09 Mental Disengagement
- 091 Distraction

10 Accommodation
- 101 Suitability

What result do you want to have happen with this demand:

01 Academic
- 011 Good grades
- 012 Graduation
- 013 Knowledge & comprehension/Skills
- 014 Motivation/Enthusiasm

02 Stressor Management
- 021 Time less restricted
- 022 Time management
- 023 Task completion

03 Family
- 031 Well-being
- 032 Successful marriage
- 033 Support
- 034 Time
- 035 Others less dependent/demanding

04 Finance
- 041 Reduced debt-load (Incl. Financial security)
- 042 Student loan
- 043 Affordability (Cost or price)

05 Stress Management
- 051 Stress reduction (Incl. gaining sense of control)
- 052 Relaxation

06 Employment
- 061 Future career
- 062 Secure a job
- 063 Change in hours worked
- 064 Job satisfaction

07 Accommodation
- 071 Securing
- 072 Finding a roommate

08 Other
- 081 Unspecified

09 Personal Satisfaction
- 091 Proving something (to self or others)
- 092 Obtaining something

10 Relationships
- 101 Getting involved (Intimacy/Significant other)
- 102 Resolving problems/conflict
- 103 Make new friends
- 104 Break up

Useful characteristics of SAIT Resources:

01 Problem-solving
- 011 Unspecified

02 Skill Development
- 021 Study skills
- 022 Work experience/skills
- 023 Athletic skills

03 Stress Reduction
- 031 Relaxation
- 032 Unspecified

04 Availability/Access
- 041 Personal attention
- 042 Information
- 043 Unspecified
- 044 Expanding social circle/new relationships

05 Helpful Attitude
- 051 Unspecified
- 052 Understanding

06 Competence
- 061 Unspecified

07 Mental Disengagement
- 071 Unspecified

08 Other
- 081 Unspecified

09 Social Support
- 091 Peers/students

10 Not effective
- 101 Unspecified
- 102 Hours/Waiting (Inconvenient)
- 103 Insufficient feedback
- 104 Obsolete or lack of information
- 105 Negative attitude
- 106 Lack of facilities

Appendix G

Frequency of Number 2, 3, 4, and 5 Ranked Demands from Time 1 to Time 4

Frequency of Number 2 Ranked Demand from Time 1 to Time 4.

	Time 1	Time 2	Time 3	Time 4
Academic	8	7	12	11
Employment	5	2	2	3
Family	4	3	1	5
Relationships	3	1	5	2
Finances	3	4	4	5
Satisfying Personal Needs	3	7	1	1
Accommodation	1			
Time Management		1	1	
Other		1	1	

Frequency of Number 3 Ranked Demand from Time 1 to Time 4.

	Time 1	Time 2	Time 3	Time 4
Relationships	9	11	4	5
Academic	4		3	2
Employment	3	4	4	7
Finances	3	4	2	3
Family	1	3	6	2
Health	1			1
Satisfying Personal Needs	1	1	2	1
Other	1		1	
Accommodation			1	
Time Management			1	
Worrying			1	1

Frequency of Number 4 Ranked Demand from Time 1 to Time 4.

	Time 1	Time 2	Time 3	Time 4
Relationships	5	3	6	8
Family	4	4	4	2
Employment	3	2	2	3
Worrying	3			
Other	2	1		
Satisfying Personal Needs	1	3	1	
Academic		1		2
Health		1		1
Finances			3	
Accommodation		1	1	

Frequency of Number 5 Ranked Demand from Time 1 to Time 4.

	Time 1	Time 2	Time 3	Time 4
Relationships	3	2	2	6
Satisfying Personal Needs	2	1		
Academic	1		1	
Family	1	3	1	2
Accommodation	1	1		2
Other	1	1		
Employment		1	2	1
Health		1	1	
Finances		2	1	
Worrying			2	1