

STRESS AND COPING IN ADOLESCENTS

PART 1 - LITERATURE REVIEW

PART 2 - JOURNAL ARTICLE

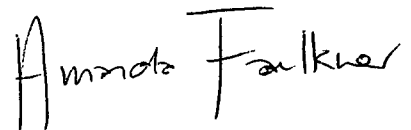
ACKNOWLEDGMENTS

I would firstly like to thank my supervisor Dr Alison Garton for all her time, guidance, and assistance throughout the past two years. Thanks must also go to all Masters students and Psychology staff for their continued interest, aid, and encouragement.

Recognition must also be given to all my friends for their kindness, companionship, tolerance, and continual support, and to my family, whose financial support, generosity, and motivation made these years possible.

Final thanks and appreciation must go to all the schools, teachers, and students who gave up their time to participate in this investigation.

This thesis contains no material which has been accepted for the award of any other higher degree or graduate diploma in any university, and to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except when due reference is made in the text of the thesis

A handwritten signature in black ink, reading "Amanda Faulkner". The signature is written in a cursive style with a large, stylized 'A' and 'F'.

Amanda Faulkner

STRESS AND COPING IN ADOLESCENTS.

LITERATURE REVIEW

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SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE MASTERS OF
PSYCHOLOGY (EDUCATION) DEGREE IN THE PSYCHOLOGY DEPARTMENT

UNIVERSITY OF TASMANIA 1996

ABSTRACT

The following review investigates stress and coping in adolescents. Some of the main stressors for adolescents are reviewed, and research into coping behaviour is examined. The effects of individual differences in stress and coping are also explored. There are many issues related to adolescent stress and coping that warrant further investigation. This review examines the different types of stress and the main stressors encountered by adolescents. Coping behaviour is explored, including the consistency of coping behaviour across situations. An appropriate assessment measure of adolescent coping (ACS) is recommended. The main coping strategies employed by adolescents are reviewed, and differences such as gender, age and ability, as well as school differences (private/state) in stress and coping behaviour are investigated. Social support, help seeking behaviour and coping are examined. It is concluded that further work is required in relation to the consistency of coping strategies across different situations perceived as stressful and non-stressful by adolescents.

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INTRODUCTION

Adolescence spans the interval between puberty and adulthood. Adolescence is regarded as a stressful period of life where many physiological, cognitive, and social changes occur. These include biological maturation, physiological changes in the body, cognitive development, sexual development, development of identity, independence from the family, relationships with peers and members of the opposite sex, uncertainty about meeting adult and peer expectations, fulfilment of social roles, completing schooling, and making decisions regarding a career (Frydenberg & Lewis, 1991a).

The effect that stress has on the adolescent's lifestyle is influenced by the adolescent's coping ability. Therefore, the relationships between stress, coping ability, and other factors (such as the individual's gender, scholastic ability and school type) are very important areas to investigate. Issues in this area are presented in the following review, under the general headings of stress, types of stress, some main stressors for adolescents, coping, and differences in stress and coping.

STRESS

DiMatteo (1991) defines stress as a physical construct, referring to "the amount of force acting on a physical object" (p. 289). Stress has been used to refer to physical strain (such as taxing an organism beyond its strength) and to psychological strain (such as when an individual experiences negative emotional reactions as a result of conflicts in relationships with other people). Stressors can include significant life changes, such as a death in the family, or consistently taxing situations, such as being in a job one dislikes. Stress has also been viewed as the physical and psychological response to stressors, that is, internal feelings created in response to certain events or thoughts about those events.

Research conducted by Lazarus and colleagues over the past 25 years has provided a strong theoretical basis for investigations and reviews into both stress and coping. His theory is regarded as the dominant theory in this area, and has become part of a standard vocabulary of researchers in the domain of stress and coping. Lazarus and Folkman (1984) conceptualise stress as a process that involves an interaction between the person and his/her environment. They term this the transactional model of stress. Stress is viewed as an imbalance between people's conception of the demands placed on them (their cognitive appraisal of the demands) and their perception of the resources at their disposal to cope with those demands. Stress is thus a post-appraisal state (Lazarus, 1990). That is, if one believes that the environment demands more resources than one has available, a stress response will be experienced. Individuals will feel different stress. For example, making a speech may be extremely stressful for some, and only mildly stressful for others.

Threat, or the subjective appraisal of the potential negative effects of a stressor, is a key concept in understanding stress. There are two phases in the cognitive appraisal of a potential stressor. Firstly, there is the primary appraisal of the implications of the event. A person will judge whether an encounter is irrelevant, benign-positive, or stressful (Folkman & Lazarus, 1985). For example, one may ask oneself, does this event have potentially negative implications for me? The secondary appraisal involves an analysis of one's abilities and options, for example, are my abilities sufficient to overcome this potential threat? What can I do? It is after these appraisals are made that the individual will react, either physiologically, emotionally, cognitively and/or behaviourally.

The majority of research reviewed in the area of stress and coping has utilised research conducted by Lazarus and associates as a theoretical underlay for subsequent investigations. However, a large proportion of investigations into stress and coping are atheoretical, in so far as they describe results, differences, and similarities between

research without relating these back to a theoretical base. Furthermore, the development of new theoretical constructs is scarce.

TYPES OF STRESS

Stress can be viewed as a dynamic process, as it is ongoing and pervasive, and something that everyone experiences to some degree at any given time. A stress experience can be caused by serious events or major incidents, as well as by a series of smaller events. Wills and Shiffman (1985, in Mates & Allison, 1992) identify three major types of stressors - firstly, major life events (which are relatively short lived but acute stressors, e.g., a death in the family, marriage, divorce); secondly, everyday problems of life (e.g., waiting in a queue, misplacing one's keys, or spilling food); and finally, enduring life strain, i.e., long term, chronic pressures that are associated with the performance of roles, and generally require significant and persistent adaptation, (e.g., being a student, or workplace stress).

Cohen and Frydenberg (1993) also comment that stress can be "anticipated", for example, stress that involves transitions through life phases (puberty or the final years of schooling), or "unanticipated", such as having an accident or illness, dealing with a divorce or death. In addition, certain individuals put stress on themselves due to their personality or nature, (for example, they may be extremely sensitive, or a perfectionist).

SOME MAIN STRESSORS FOR ADOLESCENCE

Adolescents will experience many personal stressors in everyday life. The amount of stress that an adolescent will experience will depend on the individual and his/her particular circumstances at any given time. Each stressor will also place different amounts of stress upon individuals, and research is not clear as to which stressor generates the most stress for adolescents (c.f., Burke & Weir, 1978; Groer, Thomas, & Shoffner, 1992; Mates & Allison, 1992; McCubbin & Patterson, 1986; Phelps & Jarvis, 1994).

Boldero and Fallon (1995) found that males and females are likely to identify different types of personal stressors. They found females were more likely to report stress relating to families, interpersonal relationships, and health problems. Males were more likely to identify stressors relating to educational and other problems. Females were also more likely to indicate that relationships cause greater levels of concern than males.

Boldero and Fallon (1995) also found differences relating to age. Younger students (junior/middle school) were more likely to report family problems, whereas senior students were more likely to report problems with interpersonal relationships and educational problems. Seiffge-Krenke (1993) identifies studies, teachers, parents, peers, opposite sex relationships, self, future, and leisure time as some of the most common concerns that adolescents face.

Other researchers have outlined the following areas as being indicative (but not exhaustive) of the types of personal stressors that adolescents are likely to encounter.

Peer relationships

Peer relationships and uncertainty about meeting peer expectations are extremely important to all adolescents. Peers are important because they act as confidants, allies and sources of support in times of stress, as well as being someone with whom to spend time. Malik and Furman (1993) propose that the major peer relationship problems that occur are: peer rejection, peer neglect, the absence of friendships, reputation in the peer group, and peer group affiliations. They also believe peer problems may lead to academic, family, and even mental health problems.

Another style of peer relationship which can cause enduring life strain is dating. Mates and Allison (1992) note that a lot of pressure for adolescents is involved with "worrying about not having dates, or, once dating begins, the strain of the relationship itself" (p.462). A study conducted by Phelps and Jarvis (1994) found adolescents rated boyfriend/girlfriend issues and peer conflicts as two of the most frequently reported sources of stress. Similarly, Groer, Thomas, and Shoffner (1992) found that

senior school students rated making new friends and problems with dating as two of the top five most frequently occurring life event stressors. In fact, over half the senior girls in the study reported stress due to breakup of relationships. Lempers and Clark-Lempers (1993) also found that females attach more overall emotional importance to their same and opposite sex friendships than do males.

Self concept and identity

An adolescent's self concept is "a powerful system of beliefs, both good and bad, that a person holds true about him or herself" (Cohen & Frydenberg, 1993, p.35). Adolescence is a dynamic phase, and changes and modification in one's self concept often occur.

How an adolescent views him/herself will affect how a person interprets and responds to behaviours directed towards the self. A positive self concept will generally mean an individual will feel capable. This in turn will lead to more productive coping strategies. For example, Cohen and Frydenberg (1993) found a relationship between self concept and school achievement, where better school achievement was found in students with high self concept. Research has also indicated that having low self concept and low confidence in personal efficacy in particular contexts are associated with reduced coping ability. For example, Garton and Pratt (1995) have commented individuals with lower self concept are more inclined to recognise events as stressful and to register effects of stressful events.

An adolescent is also likely to be facing constant questions relating to the development of his/her identity. For example, "Who am I and what am I about? Where is my life going? What will I need to do to enable me to get there successfully?" Whether or not an adolescent feels comfortable pondering such issues may depend on factors such as his/her self concept. McCubbin and Patterson (1986) comment that peer relationships and feeling part of a social network are important resources for adolescent individualisation and identity development.

School expectations and experiences

Keeping up with an academic workload can be a very difficult and stressful task. It is thus important adolescents learn effective time management strategies. A study conducted by Phelps and Jarvis (1994) showed that adolescents rated grades and other academic concerns as two of the most frequently reported sources of stress.

Exams also constitute a major stress for adolescents. Endler, Kantor, and Parker (1994) found by comparing state anxiety scores obtained just before an examination, to state anxiety scores obtained during a non stressful situation, that examinations were a stressful situation for university students. Abella and Heslin (1989) also found university students rate exams as moderately to somewhat stressful.

Divorce/family conflict

Divorce or family conflict can be a major source of stress in the lives of adolescents. Divorce causes stress in three ways. Firstly, one of the adolescent's parents is removed from the home. Secondly, there may be an economic decline for the custodial parent. Thirdly, there is also likely to be a heightened stress and pressure on the custodial parent him/herself (Shaw, 1990).

In addition, family conflict is likely to be stressful to all members. This is because the family system is interdependent, "what is experienced by any one member of the family affects to some degree the other members" (McCubbin & Patterson, 1986, p.265). McCubbin and Patterson reviewed research into stressors for adolescents. They found that out of 10 major items, half of the items were related to hassles of conflicts with parents, other items related to transition stress (e.g., transition to high school), illness and losses, or financial strain.

In a study conducted by Phelps and Jarvis (1994), adolescents reported parental conflicts as one of the seven most frequently reported sources of stress. Similarly research conducted by Groer, et al. (1992) found that senior school students rated

hassling with parents and siblings as two of the top five most frequently occurring life event stressors. A particularly large percentage of senior girls (89%) reported stress over hassles with parents.

Bereavement

Death of a loved one is an extremely stressful experience for everyone, at all stages of life. Depending on the closeness of the person who died, the effects of grief can last for a long period of time. An adolescent may become withdrawn. Schoolwork and interpersonal relationships may also suffer.

There are thus many different areas which can produce stress for adolescents. It is therefore extremely important to examine coping, coping behaviour, and the coping skills that adolescents possess. The use of inadequate coping strategies for such stressors may have serious implications for adolescents. For example, in severe cases inadequate coping strategies can lead to depression and suicide. Suicide in Australia is the second leading cause of death in the 15-24 year old age group, constituting 23.7% of deaths in 1994 (A.B.S., 1995). Abella and Heslin (1989) also point out evidence strongly supports a positive relationship between deterioration of health and the amount and severity of stress experienced by individuals in their lives. Longitudinal studies have also reported a connection between stressful life events and family conflict, delinquency, self-destructive behaviour, and social isolation (Gershen, Langer, & Orsec, 1974).

COPING

Adolescents describe coping as "what they do to learn about and deal with problems in order to neutralise or reduce stress" (Frydenberg, 1994, p.1). Coping with concerns can involve a range of behaviours, for example, adaptation, mastery, defence or realistic problem solving (Cohen & Frydenberg, 1993). Compas (1987) also notes that coping includes all purposeful attempts to manage stress, regardless of their effectiveness.

McCubbin and Patterson (1986) comment that it is important to differentiate between coping styles and coping responses. They believe a coping style is "a generalised strategy of habitual preference for approaching problems irrespective of their source or nature" (p.270). Whereas coping responses refer to, "specific behaviours undertaken in a effort to manage the demands of the situation so as to eliminate or reduce the stress experienced" (p.270).

McCubbin and Patterson (1986) state further that adolescent coping is not simply a matter of knowing what to do. They believe adolescents acquire coping behaviours and strategies from at least four different sources of information: firstly, from previous experience in handling similar situations; secondly, from vicarious experience associated with observing others success or failure; and thirdly, from adolescents' perceptions of their own physiology as well as inferences they make concerning their vulnerability. Finally, adolescents acquire coping behaviour and strategies from social persuasion, that is, influence, feedback, and assessment by parents, peers, and significant others.

Conceptualisations of Coping Behaviour

Work conducted by Lazarus and colleagues provides the theoretical basis for research into coping behaviour. Lazarus and Folkman define coping as, "Constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (1984, p.141). This perspective of conceptualising cognitive appraisal and coping suggests a process approach, whereas earlier research conceptualised coping as a set of traits which were static dispositions (Scherer, Drumheller, & Owen, 1994). Frydenberg and Lewis (1994) comment a state-trait approach focuses on both the transitory or variable nature of coping behaviour (state) and the relatively stable individual differences in coping behaviour (trait). Scherer, et al. (1994) believe the trait approach has limited predictive value as researchers assume coping consistency across different transactions and ignore the unique context of innumerable situations which a person could encounter. Terry

(1991) adds that because stable coping processes have seldom been empirically verified, this approach has received little support in the literature.

Classifications of Coping Behaviour

Lazarus and Folkman (1984) identify two dichotomous groupings of coping dimensions. The first, problem-focused coping, involves taking a direct action to solve the problem, or alternatively, seeking information that will be relevant to the solution. Both of these include strategies directed at the self such as motivational changes, reducing ego involvement, and learning new skills and procedures. An example of this type of coping would be the development of a study timetable to reduce pressure from an overbearing workload. The other form of coping is emotion-focused coping, which involves efforts to reduce the negative emotional reactions to stress, maybe by distraction, relaxation, by seeking comfort from others, or by strategies that lead to a reevaluation of the negative consequences of the situation, such as, positive comparisons with something worse. This form generally predominates in situations in which an appraisal has been made that nothing can be done to avoid negative or to achieve positive consequences. Effective coping generally involves some combination of problem-focused and emotion-focused coping. However, the two forms can either facilitate or impede each other. Compas, Orosan, and Grant (1993) have noted that emotion-focused coping skills are acquired in childhood and adolescence, and their use is increased in this period. However, problem-focused coping skills do not generally increase in use from middle childhood until adolescence.

Carver, Scheier, and Weintraub (1989) argue that while the distinction between emotion-focused (person orientated) and problem-focused (task orientated) coping is important, they believe the process of coping is more complex. They cite research which finds that more than two factors are involved. They propose that researchers may view factors other than problem-focused coping as variations on emotion-focused strategies. However, they note that as emotion-focused strategies can include a wide range of coping strategies (e.g., denial, positive reinterpretation, seeking social

support), they may have very different implications relating to a person's success in coping, and thus need further scrutiny. Finally, Endler and Parker (1990) suggest that avoidance could be considered a third basic coping strategy. This can be expressed within either person or task orientated strategies.

Frydenberg and Lewis (1993a) categorise 18 coping strategies which can be grouped into three coping styles, representative of functional and dysfunctional aspects of coping. The functional strategies directly attempt to deal with the problem, with or without reference to others, whilst the dysfunctional strategies related to usage of non productive strategies. Seiffge-Krenke and Shulman (1990) also classified coping strategies into functional (active coping and internal coping) and dysfunctional (withdrawal) coping styles.

Major Coping Responses used by Adolescents

Allen and Hiebert (1991) found that the demands adolescents encounter may surpass the coping resources that they believe are available. This finding highlights the need for greater research, specifically into the types and effectiveness of coping strategies that adolescents employ.

Frydenberg and Lewis (1993b) found strategies used most frequently by adolescents were Seeking Relaxing Diversions, Working Hard to Achieve, Focus on Solving the Problem and Physical Recreation. The three least used coping strategies were Seeking Spiritual Support, Seeking Professional Help, and Social Action. Similarly, Lawson (1994) found adolescents used the strategies of relaxation, solving the problem, social support, and work the most. She found they used strategies of social action, spiritual help, professional help, and ignoring the problem the least.

Mates and Allison (1992) found major coping responses for adolescents to be substance use and diversionary activities.

Effective Versus Ineffective Coping Methodologies

The coping strategies utilised by an adolescent's will affect his/her reaction and behaviour to a stressful situation (Endler, et al., 1994). Compas, et al. (1993) comment that the use of adaptive coping responses may lessen the impact of the stress on the individual. However, the use of non adaptive coping responses may exacerbate stress, and contribute to long-term, pervasive, negative outcomes.

McCubbin and Patterson (1986) believe the optimal coping strategies for the individual adolescent will always depend upon the situation. An example of an individual's coping strategy is given by Denholm (1995) in an unusually detailed case history of a girl who survived a cougar attack. She demonstrated several of the coping strategies noted by McCubbin and Patterson (1986). These were directed at reducing demands (e.g., solving the problem); increasing personal resources (e.g., developing self reliance); building family and community resources; redefining the situation (e.g., seeing the good things in a situation); and finally, managing the tension from experienced demands (e.g., being physically active, or seeking diversions).

Seiffge-Krenke (1993) also supports McCubbin and Patterson's (1986) proposals, as she points out that coping strategies cannot be inherently labelled as "good" or "bad" as the specific context always needs to be considered. A coping strategy that is effective in one situation or problem may not be effective in another. For example, distraction may be an effective coping strategy when receiving a painful injection, however, it would not act as an effective coping strategy when one has a large amount of work to complete in a small amount of time. Compas (1987) believes effective coping is likely to be characterised by flexibility and change, and further, that no coping strategy is effective for all types of stress, therefore new demands will require new ways of coping. Seiffge-Krenke also notes the effectiveness of any particular strategy may vary over time, or even become maladaptive if used continuously.

A study conducted by Abella and Heslin (1989) made the interesting discovery that the appraisal of a forthcoming stressful event (they used exams) influences the direction of emotions experienced. In addition, they found that the adaptiveness of a particular coping pattern was a result of how well the coping style used matched the person's original appraisal of the situation. They claim, "people often create their own negative outcomes by coping in a manner that is discrepant with their own assessment of the situation" (p.326). They believe the most adaptive coping style is one that is flexible and responsive to circumstantial demands and constraints.

Consistency of Coping Methods

Frydenberg and Lewis (1994) pointed out that findings in relation to consistency of coping strategies are mixed. Some researchers have found that people utilise a particular strategy, regardless of the specific problem which confronts them. This may occur even though certain situations tend to elicit greater use of particular strategies. For example, Cohen and Frydenberg (1993) believe people to have a fairly fixed repertoire of coping strategies (they call this a "coping vocabulary"). These represent a general pattern of coping which is independent of the nature of the concern/problem. That is, people will call upon this coping vocabulary no matter what the concern or context. Frydenberg (1989, in Frydenberg & Lewis, 1991b) comments these strategies can then be conceptualised in a limited range of coping styles. Cohen and Frydenberg (1993) note further that the broader the coping repertoire, the more flexibility the individual has in being able to call on resources as the need arises.

Other researchers believe people to be variable, rather than consistent, in their coping strategies. For example, Folkman and Lazarus (1985) emphasise that coping is a dynamic process that shifts in nature from stage to stage of a stressful transaction. Therefore, to use a preferred coping strategy regardless of the problem type would be counterproductive, as it would force an individual into one mode of responding, rather than allowing the freedom and flexibility to change responses with changing

circumstances. Seiffge-Krenke (1993) has also noted differential coping strategy use as a function of problem type.

Terry (1991) commented that coping varies as a function of the situation being faced. Her research revealed little evidence to support the proposition that situational appraisals mediate the relationships between resources and coping. She did find some evidence to suggest that resources and situational appraisals have interactive effects on coping. Frydenberg and Lewis (1994) also add that, although there are some situational-specific coping behaviours, the strategies used are likely to vary according to the intensity of the stress. Endler, et al. (1994) also conclude "coping is not purely a response precipitated by a specific situation but also a stylistic predisposition to use certain types of coping responses in response to various situations" (p.669, 1994). They further add that individuals differ in their stylistic patterns, and that situation specific factors are also important when considering coping reactions.

In a study examining whether individuals who report a broad repertoire of coping skills vary their coping efforts as a function of situational factors, Gintner, West, and Zarski (1989) found that those measured as having "high resourcefulness" appear to shift particular coping strategies in line with situational demands. However, their results showed that those measured as possessing "low resourcefulness" cope with the same situations in counterproductive ways.

Considerable variability in coping across situations has been found in adults (Folkman & Lazarus, 1980). Compas, Malcarne, and Fondacaro (1985) and Wills (1986) suggest that children and young adults may display more cross-situational consistency in coping than do adults. McCubbin and Patterson (1986) comment that because adolescents are dealing with a multiple set of demands simultaneously, their coping responses frequently are not role nor situation specific. They believe an adolescent's coping repertoire is progressively modified over time, being shaped by the adolescent's own abilities and developmental needs, by family-system dynamics, resources, definitions, as well as by demands and supports in the community.

The issue of potential cross situational consistency of coping behaviour in adolescent populations is an area still requiring much research and investigation. This is especially the case as much of the present data on consistency of coping relates to adult samples. Indeed, Folkman and Lazarus (1980) conclude "generalisations with respect to coping consistency must be tentative" (p. 229).

Assessment of Coping Behaviour

Phelps and Jarvis (1994) make the point that there is a limited number of reliable and valid measures that are designed to assess the coping strategies used by adolescents (see also Fanshawe & Burnett, 1991). Standardisation data on samples of adolescents are also rare. Phelps and Jarvis (1994) do not believe that adult coping literature and scales are effective for adolescents, and can only be used as guides. Their study, using the COPE (a multidimensional coping inventory), supported this conclusion, revealing adult norms may not be an appropriate comparison for adolescents. Allen and Hiebert's (1991) research also revealed adolescent use of coping strategies was below that provided in adult norms for both males and females. It is therefore important in an investigation into stress and coping during the adolescent period to use an appropriate scale, complete with norms suitable for such an age range.

Frydenberg and Lewis (1993a) developed the Adolescent Coping Scale (ACS). This scale can be recommended as it has proven reliability and validity (Frydenberg & Lewis, 1993a). In developing this scale, Frydenberg and Lewis (1991b) identified three main styles of coping behaviour. The first style is solving the problem, which involves removing it through personal endeavour with minimal use of others. This coping style is most likely to be effective or productive in stressful situations. The second style is reference to others, where others may be used as a resource within a problem focused orientation. This style also includes an element of peer support which is not problem focused. This coping style can have either positive, or negative, effects on stress. The final style of coping behaviour is non productive coping. This includes a range of emotion focused strategies which are associated with a feeling of not coping.

This coping style is least likely to be effective in stressful situations, and may in fact have a deleterious effect.

DIFFERENCES IN STRESS AND COPING BEHAVIOUR

Young people will manage their stress and concerns in different ways. Some differences in coping may be indicative of an individual's coping style, while other differences may be specific to a particular group. Distinctions can generally be found between gender, ability levels, age, and even maybe to different school experience. It is also important to examine individuals' social support networks, and their help seeking behaviours.

Gender Differences in Stress and Coping

A number of studies have found that adolescent females report greater levels of stress than adolescent males. For example, Burke and Weir (1978) found female adolescents reported significantly greater life stress than males and significantly greater overall problem related stress (total stress). Allen and Hiebert (1991) also found that female adolescents reported more stress symptoms and more intense demands than males. However, no gender differences were found in overall coping ability. Allgood-Merton, Lewinsohn, and Hops (1990) found adolescent girls reported significantly more stressful recent events than did boys. They also found girls report significantly more depressive symptomatology than boys. Petersen, Sarigiani, and Kennedy (1991) discovered that adolescent girls encounter more challenging and stressful events than adolescent boys. Interestingly, they also found that differences in experienced stress accounted for gender differences in depressed mood. Finally, Endler, et al. (1994) found that females' state anxiety levels increased more in a stressful situation (examinations) when compared to a non stressful situation, than did their male counterparts.

A study conducted by Phelps and Jarvis (1994), using responses from 484 9th to 12th grade adolescents on the COPE inventory, found males tended to report more stressors

related to school, such as grades and extracurricular activities. On the other hand, females reported more stressors related to interpersonal concerns, such as conflicts with parents, peers, and boyfriends. They also found males used more avoidant coping strategies than females (for example, alcohol/drug disengagement, and humour), and females used more emotion orientated coping than males (for example, seeking social support for both instrumental and emotional reasons, positive reinterpretation and growth, acceptance, religion, and focus on venting of emotions). However, they found that males and females did not differ significantly in their use of active coping strategies (doing something about it).

McCubbin and Patterson (1986) also report differences in coping between adolescent girls and boys as measured on the Adolescent Coping Orientation for Problem Experiences (A-COPE). They found adolescent girls scored higher on developing social support, solving family problems, developing self reliance and optimism, investing in close friendships, ventilating feelings and seeking professional help. On the other hand, adolescent boys scored higher on avoiding problems, seeking diversions, and being humorous.

Longitudinal research also highlights gender differences in reported stress and coping styles. For example, Groer, et al. (1992) research on life event stress found girls recorded significantly higher mean life events scores than males. Major forms of coping for both sexes were usage of active distraction strategies, such as exercise. However girls' usage of this strategy declined with increasing age, while the use of passive distraction techniques increased. Boys showed an increase in aggression and self destructive coping strategies (e.g., smoking, substance use) with increasing age.

An interesting study by Seiffge-Krenke and Shulman (1990), comparing coping styles across two different cultures (German and Israeli adolescents), also found significant main effects for gender. Support seeking behaviour in particular was used more frequently by females than males in both cultures. Seiffge-Krenke (1993) replicated these findings in later research, and suggested that adolescent females seek advice,

help, comfort and sympathy from others more often than boys, regardless of the nature of the problems. In another cross cultural study, Olah (1995) found adolescent girls use more emotion-focused, accommodative coping strategies than boys, and adolescent boys use significantly more problem-focused or assimilative strategies.

Research conducted by Frydenberg (1994) also revealed that gender was the most powerful predictor of coping strategy. Frydenberg and Lewis (1993b) found males used Physical Recreation as a coping response more than females, whereas females used Seeking Social Support, Wishful Thinking and Tension Reduction strategies more than males.

Ability, Stress and Coping

Cohen and Frydenberg (1993) commented that gifted young people depend on about six strategies to help them cope, whilst other young people typically rely on approximately nine strategies to help them cope. This may mean that the strategies the gifted use are more effective or efficient or, alternatively, it may mean gifted young people are less flexible in coping with their personal concerns. Cohen and Frydenberg further make the point that "it is clear that gifted young people Work Hard to Achieve and Focus on Solving the Problem more than their regular counterparts" (p. 29). They commented that gifted students were less involved in intimate relationships or friendships, and were also less likely to use Wishful Thinking, Tension Reduction strategies, daydreaming, as well as being less likely to state an inability to cope.

Mates and Allison's (1992) research identified differences in sources of stress between academic "streams" (advanced, general and basic). School and sports were reported as stressful only to the advanced and general level streams, not at the basic level stream. Gangs and strangers as well as addiction and drugs were reported as a source of stress only for the basic level stream. Parents/family, work/money, and friends were common stressors to all.

Allen and Hiebert (1991) found students with higher grade point averages experience less anxiety and have greater coping resources than students with lower grade point averages. Frydenberg (1993) found differences in coping strategies used by young "able" students than by those in the general community. Able young people focus more directly on dealing with the problem and are less inclined to just hope for the best or to resort to strategies to release tension.

Plante, Goldfarb, and Wadley (1993) found children with higher WISC-R scores were rated as better copers than those with lower scores. Tyszkowa (1990) commented, "Highly intelligent adolescents develop more effective strategies for coping with difficult situations at school and are more resistant to stress, particularly in difficult task situations" (p. 200).

Gintner, et al. (1989) found individuals measured as displaying "high resourcefulness" to report significantly less stress symptomatology than those measured as having "low resourcefulness". Those measured as displaying low resourcefulness also reported more emotion-focused strategies, such as wishful thinking, distancing, tension reduction, self blame, and keeping to self.

Age, Stress and Coping

Compas (1987) made the point that the developmental level of an individual needs to be considered in any investigation into coping. This is because cognitive capacities develop during adolescence, and will assist in the choice of effective coping strategies since older adolescents may be better able to consider various points of view and evaluate consequences. Phelps and Jarvis (1994) also commented on research which showed significant age differences in the types of coping strategies typically selected.

Groer, et al. (1992) reviewed research which found a trend where reported worries, concerns, and number of life change events increase with age. On the other hand, Tyszkowa (1990) found younger students (16 years), especially girls, to experience more difficult situations at school than older adolescents (18 years). With regard to

coping with difficulties and stress, Allen and Hiebert (1991) found older students (17 years or older) perceive their coping as less effective than younger students (14-16 year olds). However, it must be kept in mind that older adolescents face additional demands pertaining to transition into the adult world, so the stressors they face may be different.

Frydenberg's (1994) research on the ACS also revealed that older students used more Self Blame and Tension Reduction techniques than did younger students. She also found younger students utilising more Work strategies than older students. In addition, she reports that there is some evidence that functional coping decreases with age, whereas emotion coping increases, as older adolescents use more Tension Reduction techniques than younger adolescents.

Stress Differences for Private and State School Students

Researchers have found that financial strain has been a reported source of stress for adolescents (McCubbin & Patterson, 1986). In addition, Anderson (1992) has claimed that the image of private schooling has become associated with wealthier, upper social classes. If this is the case, it might be expected that the ratings given to financial problems as a stress factor may be higher for public schools.

Boyfriend/girlfriend issues have also been rated as a source of considerable stress by adolescents (Groer, et al., 1992; Mates & Allison, 1992; Phelps & Jarvis, 1994). As the opportunity for contact with the opposite sex varies between single sex (mainly private) and co-educational (mainly state) schools, it might be expected that the rating given to opposite sex relationships as a stress factor would vary between these different types of schools.

Furthermore, as private school students may feel under greater stress to perform well academically, private school students may rate academic issues such as academic workload and exams higher than state school students. This may arise because of several reasons. Firstly, private school students are charged tuition fees, and thus parents will want value or academic success for their educational dollar. Secondly,

parents of private school students may often send children to private schools because they realise that access to university, thus a future good career and salary, is dependent on high scholastic performance (Anderson, 1992). It is true that high scholastic achievement has been found in both private and state schools. However, the Australian Bureau of Statistics (1994) records also show that Australian private schools have consistently higher retention rates to Grade 12 than do state schools. The social background and role models available to private and state school students may also often be different. Abbott-Chapman (1994) found that parental values and preferences have a highly significant role in the encouragement of educational participation and are linked with student motivation to study and perform well. It is therefore likely that different support, encouragement and pressure towards academic success will be found in students attending these two school types.

Social Support and Coping

Coping will be more successful in some situations than others. Coping is more likely to be successful when social support is available, either from family or friends, or the community. McCubbin and Patterson (1986) believe, at an interpersonal level, social support firstly offers adolescents information regarding emotional support, influencing adolescents to believe that they are both loved and cared for. Secondly, social support offers esteem and support, so adolescents will feel that they are valued. Thirdly, adolescents may believe that they belong to a network of relationships involving mutual understanding and obligation. Adolescents will vary greatly in regard to the availability of social networks (for example, family groups, neighbours, mutual self-help groups) as well as in the support found in such networks. In general, good social support will serve as a buffer for adolescents against the effects of stressors, lowering rates of depression and delinquency, as well as promoting recovery for stress or crises (Licitra-Kleckler & Waas, 1993; McCubbin & Patterson, 1986).

Members of the family can be the best, most dependable, and closest source of support for many individuals (Frydenberg, 1994). Many people also rely on friends for

support. For example, Burke and Weir (1978) found that female adolescents were more likely to inform a peer of the same sex when they were having problems or anxieties, whereas, males were more likely than females to select fathers as first choice of helper when they had problems or anxieties.

Help Seeking Behaviour and Coping

Help seeking behaviour is an important subset of general coping behaviour, as asking for help is considered an adaptive method of coping with concerns and problems under a variety of different classifications of coping behaviour (e.g., problem-focused and emotion-focused; functional and dysfunctional). Boldero and Fallon (1995) found that help seeking behaviour is associated with gender and problem type. They also found that age and problem seriousness, together with gender and problem type, predicted the help source chosen (see also Greenly & Mechanic, 1976; Seiffge-Krenke, 1993).

The research by Boldero and Fallon (1995) also revealed that older adolescents asked peers for help more frequently, whereas younger adolescents asked family members for help more frequently. Friends also were asked for help more often for interpersonal problems, whereas the two professional help sources were consulted more often in regard to specific problems. Family members, friends, teachers, and other professionals were the sources of help that were utilised.

CONCLUSION

There are numerous issues and theories which need to be considered in any investigation into stress and coping for adolescents. This review has focussed on stress and coping, their definitions and types, the main stressors adolescents face, and the main coping methods utilised by adolescents of different kinds (e.g., differing gender, ability, age, school type, social support). Assessment of coping, effective versus ineffective coping, as well as the consistency of coping behaviour were also examined.

There are still many issues related to adolescent stress and coping that warrant further investigation. Firstly, the different types of stress that adolescents encounter, and adolescent perceptions regarding the severity of these stressors needs investigation. Secondly, the coping strategies employed by adolescents need further examination. Thirdly, more research is needed to examine the consistency of coping behaviour across situations of different stress. Gender, ability, age and school differences in stress and coping behaviour represent a fourth area in need of further research. Help seeking behaviour is also an area which would benefit from further research.

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**ADOLESCENT STRESS AND COPING AT EXAM AND NON-EXAM
TIME**

JOURNAL ARTICLE

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SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE MASTERS OF
PSYCHOLOGY (EDUCATION) DEGREE IN THE PSYCHOLOGY DEPARTMENT

UNIVERSITY OF TASMANIA 1996

ABSTRACT

The effect of stress on an individual's lifestyle is determined by an individual's coping ability. The way adolescents cope with stress is of particular interest to researchers, as these young people are in the process of establishing coping patterns for the future. The aims of this research were: to investigate the periods that adolescents perceive as most stressful; to examine the relationships between stress, coping ability, and other factors (such as the individual's gender, scholastic ability and school type); to examine the consistency of coping strategies over periods of high stress (exam time) and low stress (in general); and to explore help seeking behaviour. One hundred and eighty Year 11 and 12 students from one state co-educational college and two private single sex colleges participated in this investigation. Assessment measures consisted of the Adolescent Coping Scale and an additional questionnaire. The majority of students nominated exam time as the most stressful time of the year. However, students were found to employ similar coping strategies at times of great stress (exam time) as well as in general. Differences in choice of coping strategy were found for gender with females employing the coping strategies of reference to others more than males. Males employed productive strategies more than females. Differences in choice of coping strategy were also found between differing ability levels for general concerns, as average students employed non productive strategies more than more able or higher ability students (top 10 to 20%). School effects were found in relation to rankings given to everyday stressors. Differences in help seeking behaviour were found between the differing coping styles. Limitations such as the usage of a self report measure, and the reliability of individuals identifying their own coping behaviour were highlighted.

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Over the last 25 years much research into stress and coping has been conducted by Lazarus and colleagues. This research has provided a strong theoretical basis for many investigations and reviews. Lazarus and Folkman (1984) conceptualise stress as a process that involves an interaction between the person and his/her environment. They term this the transactional model of stress. Stress is viewed as an imbalance between people's conception of the demands placed on them (their cognitive appraisal of the demands) and their perception of the resources at their disposal to cope with those demands.

Stress can be viewed as a dynamic process, as it is ongoing, pervasive and something that everyone experiences to some degree at any given time. The amount of stress that an individual will experience will depend on his/her particular circumstances at any given time. Adolescence is regarded as a stressful period of life where many physiological, cognitive, and developmental changes occur (Frydenberg & Lewis, 1991a).

Wills and Shiffman (1985, in Mates & Allison, 1992) identify three major types of stressors - firstly, major life events (these are relatively short lived but acute stressors); secondly, everyday problems of life; and finally, enduring life strain, (long term, chronic pressures that are associated with the performance of roles, and generally require significant and persistent adaptation). Some of the more common personal stressors adolescents may face are peer and opposite sex relationships (Burke & Weir, 1978; Groer, Thomas, & Shoffner, 1992; Malik and Furman, 1993; Mates & Allison, 1992; Phelps & Jarvis, 1994; Seiffge-Krenke, 1993); self (Cohen & Frydenberg, 1993; Garton & Pratt, 1995); academic studies and exams (Abella & Heslin, 1989; Endler, Kantor, & Parker, 1994; Phelps & Jarvis, 1994); family conflict (Burke & Weir, 1978; Groer, et al., 1992; McCubbin & Patterson; Phelps & Jarvis, 1994; Shaw, 1990); and leisure time (Seiffge-Krenke, 1993). Boldero and Fallon (1995) found that males and females are likely to identify different types of personal stressors (see also Phelps & Jarvis, 1994). They also found differences relating to age. Each stressor will

encumber different amounts of stress upon individuals, and research is divided as to which stressor generates the most stress for adolescents (c.f., Burke & Weir, 1978; Groer, et al., 1992; Mates & Allison, 1992; McCubbin & Patterson, 1986; Phelps & Jarvis, 1994). Future investigations into this area can be recommended.

As there are many different areas which can produce stress for adolescents, it is extremely important to examine the coping strategies that adolescents possess. Lazarus and Folkman define coping as, "Constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (1984, p.141). The perspective of conceptualising cognitive appraisal and coping suggests a process approach, whereas earlier research conceptualised coping as a set of traits which were static dispositions (Scherer, Drumheller, & Owen, 1994). A variety of systems have also been developed to classify coping behaviour, such as problem-focused and emotion-focused (Lazarus & Folkman, 1984), or functional and dysfunctional (Frydenberg & Lewis, 1993a; Seiffge-Krenke & Shulman 1990).

Coping with concerns can involve a range of behaviours, for example, adaptation, mastery, defence or realistic problem solving (Cohen & Frydenberg, 1993). Compas (1987) also notes that coping includes all purposeful attempts to manage stress, regardless of their effectiveness.

The coping strategies used by an adolescent will affect his/her reaction and behaviour to a stressful situation (Endler, Kantor, & Parker, 1994). Compas, Orosan, and Grant (1993) comment that the use of adaptive coping responses may lessen the impact of the stress on the individual. However, the use of non adaptive coping responses may exacerbate stress, and contribute to long-term, pervasive, negative outcomes (see also Abella & Heslin, 1989; Gershen, Langer, & Orsec, 1974).

McCubbin and Patterson (1986) believe the optimal coping strategies for the individual adolescent will always depend upon the situation (see also Abella & Heslin, 1989;

Compas, 1987; Seiffge-Krenke, 1993). Seiffge-Krenke (1993) notes the effectiveness of any particular strategy may also vary over time, or even become maladaptive if used continuously.

Frydenberg and Lewis (1994) pointed out that findings in relation to consistency of coping strategies are mixed. They note that people tend to utilise a particular strategy, regardless of the specific problem which confronts them (Cohen & Frydenberg; 1993; Frydenberg, 1989, in Frydenberg & Lewis, 1991b). Other researchers, however, believe people to be variable, rather than consistent, in their coping strategies (Endler, Kantor, & Parker, 1994; Folkman & Lazarus, 1985; Seiffge-Krenke; 1993; Terry, 1991). Consistency of coping responses across situations and problems for adolescents is an area still requiring much research. This is especially the case as much of the present data on consistency of coping relate to adult samples (Folkman & Lazarus, 1980). A comparison of adolescent coping strategies over two different stress periods (one of high stress, one of low stress) utilising the same sample, and measured with the same instrument, would help resolve some of the controversy surrounding this issue.

As coping is a complex process involving an individual's stress appraisal and coping responses, measurement of coping has been problematic. Fanshawe and Burnett (1991) comment that while there are available instruments to assess coping, few have reported reliability and validity data. They believe selecting a measure is one of the major problems facing researchers conducting investigations into adolescent stress and coping. Few measures have been developed specifically for adolescents, and standardisation data on adolescent samples are relatively rare. Lawson (1994) comments that a self report measure is the best possibility for effectively measuring coping behaviour, and recommends The Adolescent Coping Scale (ACS). This is an Australian inventory, and can be considered the most comprehensive instrument of its kind (Frydenberg & Lewis, 1993a). It is self report inventory, which assesses 18 conceptually and empirically distinct coping strategies. These strategies are: Seeking

Social Support, Focus on Solving the Problem, Work Hard and Achieve, Worry, Investing in Close Friends, Seeking to Belong, Wishful Thinking, Social Action, Tension Reduction, Not Coping, Ignoring the Problem, Self Blame, Keeping to Self, Seeking Spiritual Support, Focusing on the Positive, Seeking Professional Help, Seeking Relaxing Diversions, and Physical Recreation (Frydenberg & Lewis, 1993a).

The ACS can also reflect individual coping styles. These are determined by examining the combinations of strategies that individuals use. The first coping style is solving the problem, which involves removing it through personal endeavour with minimal use of others. The subscales in the ACS that are classified into this coping style are: Seeking Social Support, Focus on Solving the Problem, Physical Recreation, Seeking Relaxing Diversions, Investing in Close Friends, Seeking to Belong, Working Hard and Achieving, and Focusing on the Positive. These coping strategies are most likely to be effective or productive in stressful situations.

The second coping style is reference to others, where others may be used as a resource within a problem focused orientation. This style also includes an element of peer support which is not problem focused. The subscales in the ACS that are classified into this coping style are: Seeking Social Support, Seeking Spiritual Support, Seeking Professional Help, and Social Action. These coping strategies can have either positive, or negative, effects on stress.

The final style of coping behaviour is non productive coping. This includes a range of emotion focused strategies which are associated with a feeling of not coping. The subscales in the ACS that are classified into this coping style are, Worry, Seeking to Belong, Wishful Thinking, Not Coping, Ignoring the Problem, Tension Reduction, Keeping to Self, and Self Blame. These coping strategies are least likely to be effective in stressful situations, and may in fact have a deleterious effect.

Frydenberg and Lewis (1993b) found coping strategies used most frequently by adolescents were Seek Relaxing Diversions, Work Hard to Achieve, Focus on Solving

Problems and Physical Recreation. The three least used coping strategies were Seek Spiritual Support, Seek Professional Help, and Social Action (see also Lawson, 1994). Mates and Allison (1992) found major coping responses for adolescents to be substance use and diversionary activities.

Differences have been found in adolescent stress and coping behaviours. These include gender, ability, age, and school differences. For example, a number of studies have found that adolescent females report greater levels of stress than adolescent males (Allen & Hiebert, 1991; Allgood-Merton, Lewinsohn, & Hops, 1990; Burke & Weir, 1978; Endler, et al., 1994; Petersen, Sarigiani, & Kennedy, 1991).

Frydenberg and Lewis (1993b) found males used Physical Recreation as a coping response more than females, whereas females used Seeking Social Support, Wishful Thinking and Tension Reduction Strategies more than males (see also McCubbin & Patterson, 1986; Phelps & Jarvis, 1994). Longitudinal and cross-cultural research also reports gender differences in reported stress and coping styles (Groer, et al., 1992; Olah, 1995; Seiffge-Krenke, 1993; Seiffge-Krenke & Shulman, 1990).

Mates and Allison's (1992) research identified differences in sources of stress between academic "streams" (advanced, general and basic). Allen and Hiebert (1991) found students with higher grade point averages experience less anxiety and have greater coping resources than students with lower grade point averages (see also Plante, Goldfarb, & Wadley, 1993; Tyszkowa, 1990). Frydenberg (1993) found differences in coping strategies used by young "able" students than by those in the general community.

Compas (1987) made the point that the developmental level of an individual needs to be considered in any investigation into coping. Allen and Hiebert (1991), Frydenberg (1994), Groer, et al. (1992), Phelps and Jarvis (1994), and Tyszkowa (1990) also commented that there were significant age differences in the types of coping strategies typically selected.

Research into differences in reported stress between private and state schools has not been found. As differences often exist between state and private schools in regard to the school environment, S.E.S. factors, and family background and pressures, students may rate everyday stressors and enduring life strains differently. For example, researchers have found that financial strain has been a reported source of stress for adolescents (McCubbin & Patterson, 1986). As private schooling has been associated with the wealthier classes (Anderson, 1992) it might be expected that ratings given to financial problems as a stress factor would be higher for state school students. In addition, several researchers have found that adolescents rate boyfriend/girlfriend issues as a source of considerable stress (Groer, et al., 1992; Mates & Allison, 1992; Phelps & Jarvis, 1994). As the opportunity for contact with the opposite sex varies between single sex (mainly private) and co-educational (mainly state) schools, it might be expected that the rating given to opposite sex relationships as a stress factor would vary between these different types of schools.

Furthermore, as private school students may feel under greater stress to perform well academically, private school students may rate academic issues such as academic workload and exams higher than state school students (c.f., Abbott-Chapman, 1994; Anderson, 1992).

Coping with stress will be more successful in some situations than others. Coping is more likely to be successful when social support is available, either from family or friends, or the community (Burke & Weir, 1978; Frydenberg, 1994). Adolescents will vary greatly in regard to the availability of social networks as well as in the support found in such networks (Licitra-Kleckler & Waas, 1993; McCubbin & Patterson, 1986).

Boldero and Fallon (1995) found that help seeking behaviour is associated with gender and problem type. Age and problem seriousness, together with gender and problem type, also predict the help source chosen (see also Greenly & Mechanic, 1976; Seiffge-Krenke, 1993). As asking for help is considered an adaptive method of coping with

concerns and problems under a variety of different classifications of coping behaviour (e.g., problem-focused and emotion-focused; functional and dysfunctional) it is important to investigate further and add to the literature surrounding adolescent help seeking behaviour, that is, would the majority of adolescents seek advice or guidance in coping with stress? Who would be their preferred choice of helper?

Aims

The aims of this research will firstly be to investigate periods that adolescent perceive as most stressful, as well as examining the coping strategies employed by adolescents. Secondly, the consistency of coping strategies will also be explored by comparing adolescent coping at exam time as well as in general. Finally, the effects of gender, ability, and school type on adolescent stress and coping strategies used at exam time and in general will be analysed. Help seeking behaviour will also be investigated.

It can firstly be hypothesised that adolescents will perceive that they will feel more stressed at exam time than in general. Secondly, that adolescents will employ similar coping strategies at times of low stress (in general) and high stress (exam time). Thirdly, it can also be predicted that females will report more stress than males in general and at exam time. Fourthly, it is predicted that females will report as coping more effectively with the demands they face in general as well as at exam time. Fifthly, it is hypothesised that males and females will employ different coping strategies in general as well as at exam time. Sixthly, it is predicted that "able" students will report as coping more effectively than "average" students. Seventhly, "able" students will employ more productive coping strategies than "average" students. And finally, it is hypothesised that there will be a difference in the rankings given to stressful everyday events and enduring life strain between state and private schools.

METHOD

Participants.

A total of 180 Year 11 and 12 students aged between 15 to 19 years (157 were 16 or 17 years of age) participated in this investigation. Ninety-two participants were obtained from one state co-educational college and 88 participants from two private single sex colleges. Ninety-eight girls and 82 boys participated in this investigation. "Able" (top 20%) and "average" students were identified by a self report questionnaire regarding the student's perceived intellectual placement in his/her class. Ninety participants rated themselves as being of average scholastic ability, 83 as being in the top 20%, and 6 participants rated their scholastic ability as "other".

Design.

A 2 (stress period, i.e., exam/non exam period) by 2 (gender) by 2 (achievement, i.e., able/average) by 2 (school type, i.e., state/private) factorial design was employed. A repeated measured design was not utilised as the factor structure obtained was slightly different for each factor. The dependent variables were differences in coping and perceived stress as measured by the chosen instruments.

Materials.

The assessment measures consisted of the Adolescent Coping Scale and a separate questionnaire.

The Adolescent Coping Scale (ACS) - The short form of the ACS was employed in this investigation. This consists of 18 items indicative of each of the coping strategies. The short form has proven to be useful indicator of a individual's performance on the long form of the ACS (79 items), and each item has been found to be substantial enough to justify its independent usage (Frydenberg & Lewis, 1993a). Both the general (which assesses how a subject copes with concerns in general) and the specific (which assesses

how a subject copes with a particular concern, in this case - exam stress) short forms of the ACS were used. Items were rated by subject's using a five point Likert-type scale (1= doesn't apply or don't do, 2= used very little, 3= used sometimes, 4= used often, and 5= used a great deal).

The ACS does not require advanced comprehension or reading skills, and is thus highly suitable for the adolescent population.

Additional Questionnaire - This was a 7 item questionnaire designed to measure the additional dependent variables not assessed using the ACS. These related to the variables of scholastic ability, school type, and gender (see Appendix for a copy of the questionnaire). On the first page of this questionnaire, participants were required to list their name, school, sex, age, year level and date. This information was subsequently coded. This confidential coding system permitted matching individual's data from both survey periods. The majority of questions on this questionnaire were measured using a Likert-type scale. Questionnaire items were as follows:

Question 1: Participants were required to indicate what time of the year they found most stressful. Times offered were "beginning of term," "exam time," "end of term," "none" and "other." Participants could choose only one time.

Question 2: Participants were required to rate the level of stress they felt at exam time, as well as for other times of the year. "Extreme" was rated as 1; "very high" as 2; "high" as 3; "moderate" as 4; "low" as 5; and "none" as 6.

Question 3: Participants were required to rate how they felt they coped with stress during exam time, as well in general. "Very well" was rated as 1; "well" as 2; "adequately" as 3; "poorly" as 4; "very poorly" as 5; and "other" as 6 (if participants chose this option, they were required to specify how they coped).

Question 4: Participants were required to rank sources of everyday stress and enduring life strain (i.e., money problems, family problems, relationships with the opposite

sex, relationships with friends, academic workload, exams, sport and other activities and illness) in order from the most stressful to the least stressful. A rank of 1 was given to the most stressful item, through to 8, which was given to the least stressful item. Participants could also chose "other" which allowed them to specify their own personal stressor.

Question 5: Participants were required to rate themselves in terms of scholastic ability (for example, would you place yourself in the top 10%, 20%, average, other?). "Top 10%" was coded as 1; "top 20%" as 2; "average" as 3; and "other" as 4.

Question 6: Participants were required to indicate if they would seek advice or guidance in coping with stress, as well as if they knew where they could seek advice.

Question 7: Participants were required to indicate who of friend-same sex, friend-opposite sex, mother, father, teacher, guidance officer, brother/sister, doctor, school nurse, priest, or other, they would be most likely to approach for advice of guidance in coping with stress. Participants could indicate one or more people.

The questionnaire was pilot tested on a small sample (n=23) to ensure it could be understood and completed with ease.

Procedure

Participants were tested in class groups over two sessions. Session 1 contained the general form of the ACS and the additional questionnaire. These were administered in a period of relatively low stress (non-exam time). Session 2 contained the specific form of the ACS. Participants were required to complete this in relation to exam stress. This was administered at a period of high stress (the week before exams commenced). (See Appendix for details of instructions given to participants).

Session 1 took approximately 15 minutes per class group, and session 2 approximately 10 minutes per class group.

RESULTS

Results were collected and analysed using the computer package of SPSS.

Sixty-eight percent of participants (123) nominated exam time as the most stressful time of year. T-tests for paired samples revealed a significant difference in the level of stress reported at exam time as compared with other periods of the year ($t(1,178)=-15.09$, $p=0.001$).

Means taken from an analysis of the whole sample on the ACS (general form) revealed that the three most frequently used coping strategies for general concerns were focussing on solving the problem (mean=3.82) seeking relaxing diversions (mean=3.64), and physical recreation respectively (mean=3.59). The three least used coping strategies for general concerns were seeking professional help (mean=1.55), not coping (mean=1.89), and seeking spiritual support (mean=2.08) respectively.

For the specific concern of exam stress, means taken from an analysis of the entire sample on the ACS (specific form) revealed that the three most frequently used coping strategies were firstly, focussing on solving the problem (mean=3.94); secondly, work hard and achieve (mean=3.73); and finally, seeking relaxing diversions (mean=3.51) and physical recreation (mean=3.50) were extremely similar as the third most frequently used coping strategy. The three least used coping strategies for exam stress were not coping (mean=1.77), seeking professional help (mean=1.85), and seeking spiritual support respectively (mean=2.22).

An investigation into the interrelationships between the coping strategies was also conducted by using an oblique factor analysis for both the general and specific forms of the ACS. The results of these analysis are presented in Table 1 (general form) and Table 2 (specific form). To facilitate interpretation only those loadings greater than 0.30 have been reported.

From an examination of Table 1 and 2, factor 1 comprises eight strategies (Worry, Belong, WishThink, NotCope, Ignore, TensRed, KeepSelf and SelfBl). These strategies are associated with non productive and avoidance types of coping strategies. Factor 2 contains four strategies characterised by reference to others (SocSup, Spirit, ProfHelp, SocAct). The final factor contains eight strategies (SocSup, SolveProb, PhysRec, Relax, Friends, Belong, Work, FocPos). These methods represent more productive coping strategies, focussing on solving the problems at hand, while still keeping fit, optimistic, relaxed, and connected to supports or friends. Each of these styles of coping are consistent with those found by Frydenberg and Lewis (1991b).

An examination of Tables 1 and 2 reveals a very similar factor structure for both analyses. This suggests that participants use very similar strategies to cope with general concerns (taken at a period of low stress), and specific concerns, such as exam stress (taken at a period of high stress).

Table 1: Pattern Matrix of the 18 coping styles (General form).

	Non-productive coping	Reference to others	Solving the problem/productive coping
FocPos			0.56
SolvProb			
Work			0.30
Friends			0.43
Relax			0.76
PhysRec			0.58
Belong			0.46
SocSup		0.63	
Spirit		0.53	
ProfHelp			0.31
SocAct		0.61	
WishThink		0.47	
Worry		0.52	
NotCope	0.58		
Ignore	0.69		
TensRed	0.56		
KeepSelf	0.49		
SelfBl	0.44		

Table 2: Pattern Matrix of the 18 coping styles (Specific form).

	Non-productive coping	Reference to others	Solving the problem/productive coping
FocPos			0.40
SolvProb		0.32	
Work		0.49	
Friends			0.43
Relax			0.79
PhysRec			0.68
Belong			0.47
SocSup		0.63	
Spirit		0.50	
ProfHelp		0.50	
SocAct		0.67	
WishThink	0.61		
Worry	0.55		
NotCope	0.59		
Ignore	0.71		
TensRed	0.60		
KeepSelf	0.54		
SelfBl	0.70		

Stress, Coping, and Gender.

Results from the overall sample on the additional questionnaire show that the mean rating given to reported level of stress during exam time for males was high to very high (mean=2.65). Females also reported that their level of stress at exam time was between high to very high (mean=2.48). The average rating given to reported level of stress in general for both males (mean=4.05) and females (mean=3.89) were between moderate to high. One way ANOVAs examining the effects of gender on reported levels of stress at exam time and at other periods of the year indicate that males and females do not report significantly different levels of stress.

Means taken from an analysis of the whole sample on the additional questionnaire also reveal that the average rating given to reported level of coping ability during exam time for both males (mean=2.56) and females (mean=2.76) was between well to adequately. The average rating given to reported level of coping ability in general for both males (mean=2.36) and females (mean=2.67) was also between well to adequately. Interestingly, one way ANOVAs examining the effects of gender on reported coping ability show that in general, females perceive themselves as coping more effectively with stress than do males ($F(1, 178)=4.43, p=0.04$). This finding is not continued at exam time, where males and females do not reveal a significant difference in reported coping ability.

For general concerns, means taken from an analysis of the ACS (general form) revealed that the three most frequently used coping strategies for males were firstly, physical recreation (mean=4.0), secondly, seeking relaxing diversions (mean=3.91), and thirdly, focus on solving the problem (mean=3.88). For females, the three most frequently used coping strategies were firstly, focus on solving the problem (mean=3.77), secondly, work hard and achieve (mean=3.65), and thirdly, seeking social support (mean=3.50). The three least used coping strategies for males were seeking professional help (mean=1.49), seeking spiritual support (mean=1.75), and not coping (mean=1.88), respectively. The three least used coping strategies for females

were seeking professional help (mean=1.60), not coping (mean=1.93), and ignoring the problem (mean=2.33), respectively.

For the specific concern of exam stress, means taken from the analysis of the ACS (specific form) revealed that the three most frequently used coping strategies for males were firstly, focus on solving the problem (mean=3.91), secondly, seeking relaxing diversions (mean=3.79), and thirdly, physical recreation (mean=3.78). For females, the three most frequently used coping strategies were firstly, focus on solving the problem (mean=3.97), secondly, work hard and achieve (mean=3.90), and thirdly, worry (mean=3.44). The three least used coping strategies for males were seeking professional help (mean=1.70), not coping (mean=1.72), and seeking spiritual support (mean=1.77), respectively. The three least used coping strategies for females were not coping (mean=1.80), seeking professional help (mean=1.98), and investing in close friends (mean=2.30) respectively.

An analysis of gender and the three main coping styles which emerged from the factor analysis performed on the ACS (i.e., focus on solving the problem, non productive coping, and reference to others) for general concerns and the specific concern of exam stress was also conducted. Factor score variables in each coping style were derived using the regression method. These factor scores were then compared according to gender in one way ANOVAs.

For general concerns, no significant differences between males and females were found in their usage of non productive coping strategies. However, a significant difference between males and females was found in their usage of reference to others ($F(1, 174) = 24.96, p=0.001$), with females using these coping strategies more than males. A significant gender difference was also found in adolescences' usage of productive strategies, i.e., focus on solving the problem ($F(1, 174)=7.11, p=0.008$), with males using these strategies to cope with their general concerns more than females .

A similar pattern occurs for males and females in their usage of coping strategies for the specific concern of exam stress, once again suggesting cross situational coping consistency between general stress and the specific stress of exams. No significant difference was found in usage of non productive coping strategies between males and females. However, significant differences were found between males and females in their usage of reference to others ($F(1,177)=19.69$, $p=0.001$) with females employing these strategies more than males; and also in the usage of productive strategies ($F(1,177)=14.96$, $p=0.0002$), with males employing these strategies more than females.

Stress, Coping, and Ability.

An analysis of the additional questionnaire revealed that 50% of participants indicated they perceived themselves as being of average scholastic ability. Fifteen percent indicated they would be in the top 10% of ability, 31% indicated that they would be in the top 20% of ability and 3% indicated that their scholastic ability was "other".

The average ratings given to reported level of coping ability on the additional questionnaire during exam time for all ability levels were between well to adequately. These are shown in table 3. The average ratings given to reported level of coping ability in general for all ability levels were also between well to adequately. These are presented in table 4.

Table 3: Reported coping effectiveness for different ability levels at exam time

Self-Reported Ability Level	n	Mean Rating
Top 10%	27	2.44
Top 20%	56	2.70
Average	90	2.70
Total	173	2.66

Table 4: Reported coping effectiveness for different ability levels in general

Self-Reported Ability Level	n	Mean Rating
Top 10%	27	2.15
Top 20%	55	2.62
Average	90	2.57
Total	172	2.52

One way ANOVAs examining the effects of self reported ability (i.e., average or top 10 to 20%) on self reported coping effectiveness found no significant differences between the different ability levels at either exam time or in general, suggesting that no ability group perceived themselves as coping more effectively than any other ability group at any time.

Ability and the relationships between the three main coping styles which emerged from the factor analysis of the ACS (i.e., productive coping/focus on solving the problem, non productive coping, and reference to others), was also compared for general concerns as well as for the specific concern of exam stress. Factor score variables of each coping style were derived using the regression method. These factor score variables were then compared in relation to scholastic ability in one way ANOVAs.

For general concerns, a significant difference was found in the usage of non productive coping strategies ($F(2,167)=4.06$, $p=0.01$), with average students using non productive strategies more than able students (top 10-20%). No significant differences were found when comparing ability and the usage of the other coping strategies, namely, reference to others and productive coping.

When examining coping in relation to the specific stress of exams, no significant differences were found for ability in non productive coping, reference to others, or productive coping.

Stress, Coping, and School Effects

Results obtained from the additional questionnaire show that the mean rankings given to everyday stressors and enduring life strain would appear to be reasonably similar for adolescents from both state and private schools. Figure 1 shows the percentage of state and private school students who ranked each everyday stressors and enduring life strain as most stressful.

Notable exceptions in the rankings given by private and state school students do exist. For example, in the ranking given to "money problems" between state and private school students, (Figure 2), it can be seen that state school students rank this factor as being a higher source of stress than do private school students (a ranking of 1 indicates the most stressful factor, and 8 the least stressful).

The rankings given to "academic workload" and "exams" also vary slightly between state and private schools. These are illustrated in Figures 3 and 4 respectively. It can be seen that private school students tend to rank these factors higher than do state school students.

The stress ranking given to "relationships with the opposite sex" also varies slightly between state and private schools. This is illustrated graphically in Figure 5, where it can be seen that state school students have a slight tendency to rank this as a more stressful factor than do private school students.

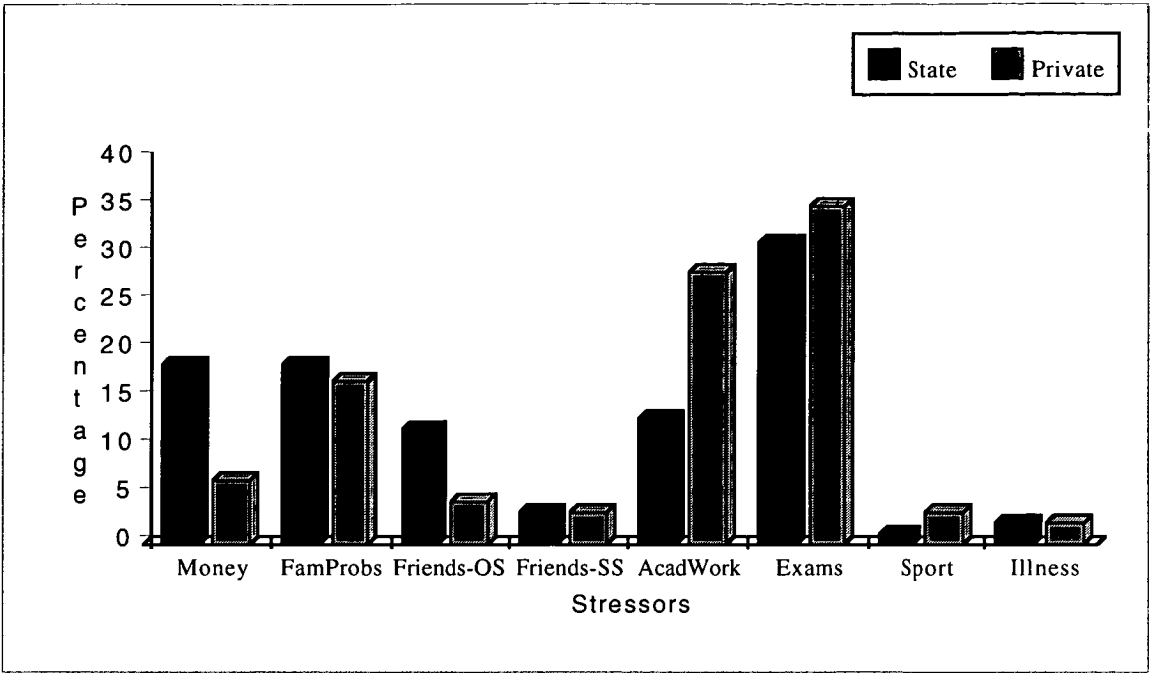


Figure 1: State and private school students' rankings of the "most stressful" everyday stressors and enduring life strains.

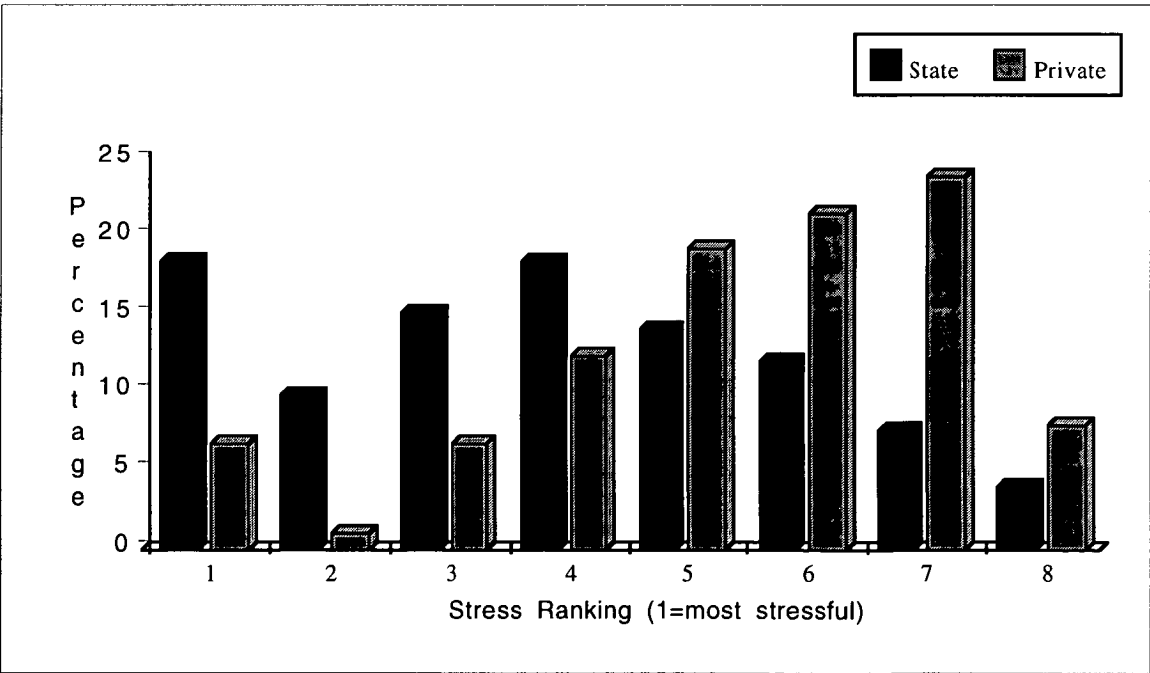


Figure 2: State and private school students rankings for "money problems" as a stress factor.

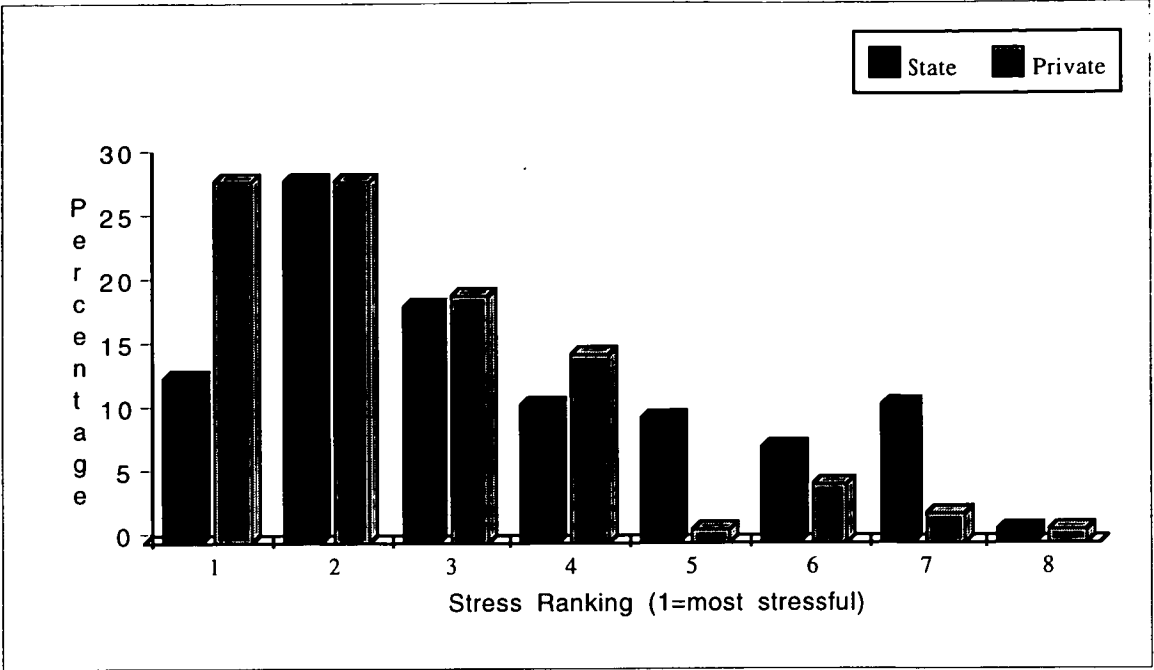


Figure 3: State and private school students rankings for "academic workload" as a stress factor.

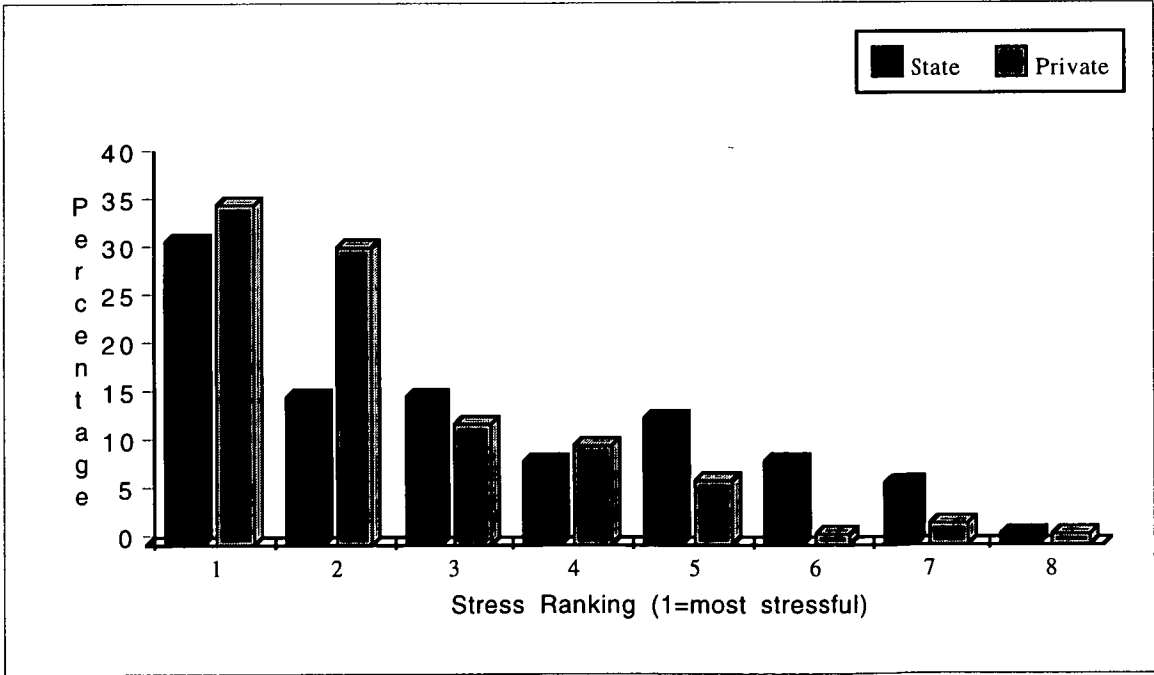


Figure 4: State and private school students rankings for "exams" as a stress factor.

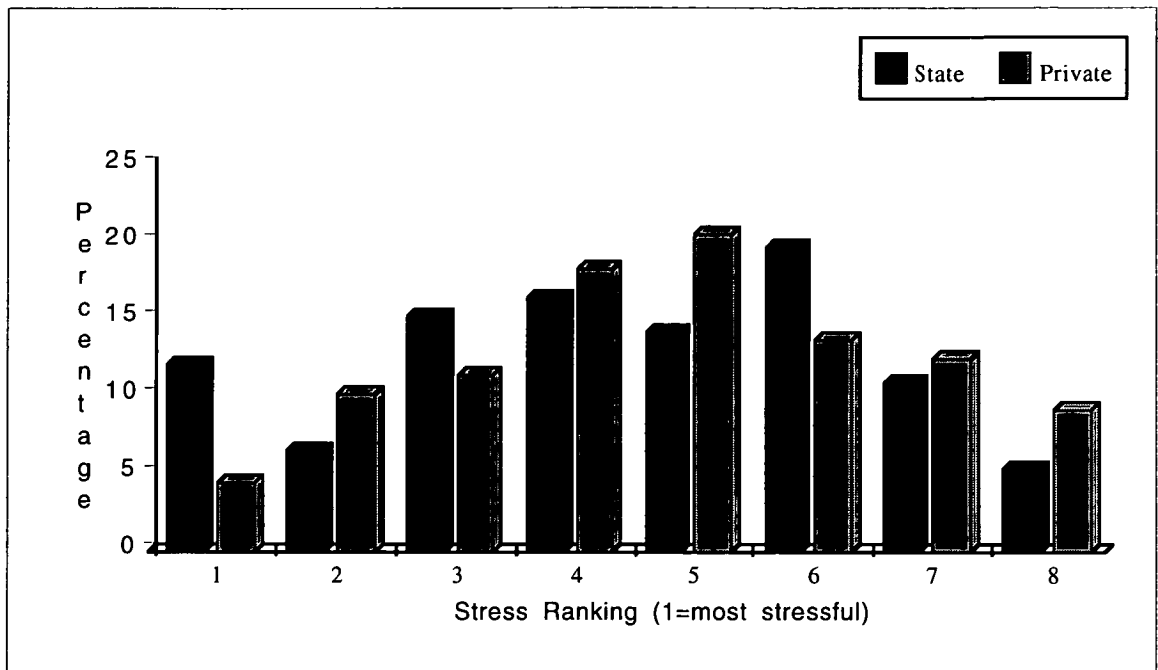


Figure 5: State and private school students rankings for "relationships with the opposite sex" as a stress factor.

Coping and Help-Seeking Behaviour

An analysis of the additional questionnaire revealed that 58% of participants sampled would seek advice or guidance if they felt that they needed help coping with stress. In addition, 76% of participants said that they knew where they would seek advice. The three main coping styles (i.e., focus on solving the problem, non productive coping, and reference to others) were examined in relation to help seeking behaviour by one way ANOVAs.

For general concerns, a significant difference was found in help seeking behaviour for the coping style of non productive coping ($F(1, 174)=5.14, p=0.0245$). The majority of participants who used this coping style indicated that they would not seek advice or guidance in coping with stress. A significant difference was also found in help seeking behaviour for the coping style of reference to others ($F(1, 174)=11.91, p=0.0007$),

with the majority of participants who used this coping style indicating they would seek advice or guidance in coping with stress. A significant difference in help seeking behaviour was not found for the coping style of solving the problem.

For the specific concern of exam stress, a significant difference was found in help seeking behaviour for the coping style of reference to others ($F(1, 177)=15.51$, $p=0.0001$). The majority of participants who used this coping style indicated that they would seek advice or guidance in coping with stress from exams. No significant differences were found in help seeking behaviour for the specific concern of exam stress for either non productive coping or focus on solving the problem.

When comparing the three coping styles with knowledge of where to seek advice when coping with general concerns no significant differences were found.

For the specific concern of exam stress, a significant difference was found in knowledge of where to seek advice for the coping style focus on solving the problem ($F(1, 177)=5.71$, $p=0.0179$). The majority of participants who used this coping style indicated that they would know where to seek advice when coping with stress from exams. No significant differences were found for knowledge of where to seek advice when coping with stress from exams for either non productive coping or reference to others.

Figure 6 shows the different sources or support that are available to school students, and the percentage of participants that nominated each source as ones that they would be most likely to approach for help or guidance.

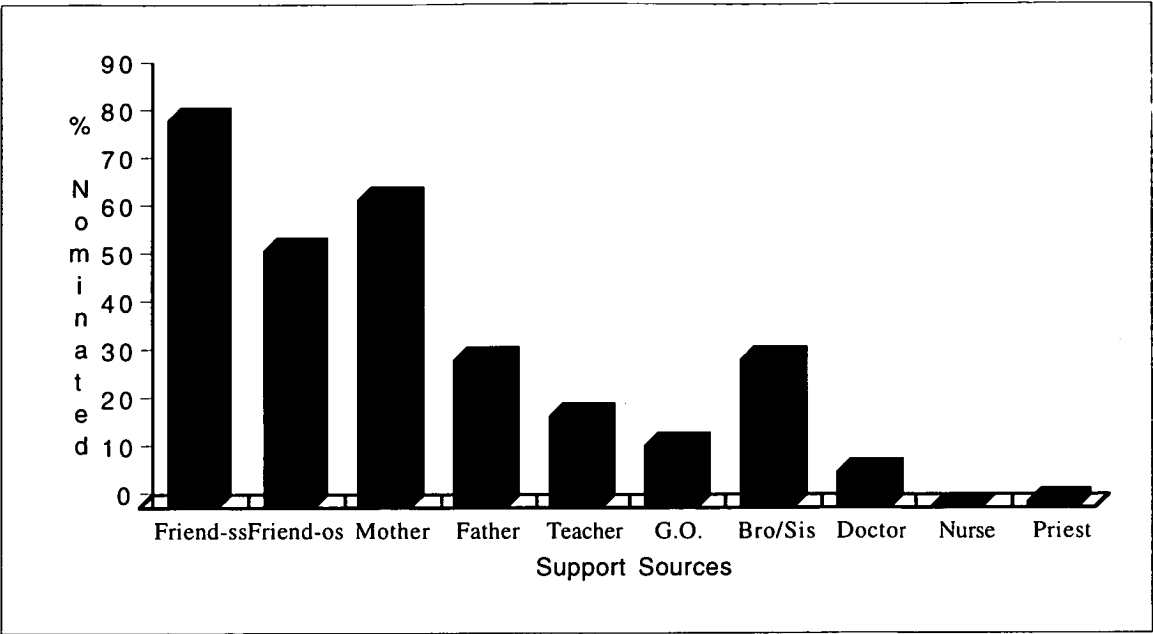


Figure 6: Student rankings for preferred sources of help for coping with stress

Figure 6 shows that the highest number of participants are likely to approach friends of the same sex for help or guidance in coping with stress. Mothers are the second most nominated source when looking for help or guidance in coping with stress.

DISCUSSION

The present study has examined some of the stressful everyday events and enduring life strains that adolescents face. It was hypothesised that students would perceive that they would feel more stressed at exam time than in general. Support for this prediction was found, as the majority of participants nominated exam time as the most stressful time of the year. A significant difference was also found in the reported level of stress at exam time compared with the reported level of stress in general. This finding supports other research conducted with university students by Endler, et al. (1994) and Abella and Heslin (1989), suggesting that examinations are regarded as stressful.

Gender differences in perceived stress were also investigated. It was predicted that females would report more stress than males in general and at exam time. It was found that males and females do not report significantly different amounts of stress at either

exam time or in general. This finding is contradictory to many other studies, such as those by Allen and Hiebert (1991); Allgood-Merton, et al. (1990); Burke and Weir (1978); and Petersen, et al. (1991). This opposing finding may be due to the usage of a simple measure (the additional questionnaire) which is limited in its investigation into levels of stress. Future research would benefit from employment of a more comprehensive standardised measure to assess this variable.

The coping strategies that adolescents use for specific and general concerns were also examined. Adolescents were found to use the coping strategies of focusing on solving the problem, seeking relaxing diversions, and physical recreation the most for coping with their general concerns at periods of low stress. The strategies adolescents employed the least for their general concerns were seeking professional help, not coping and seeking spiritual support. These findings are largely consistent with many other studies into adolescents and their coping behaviour (Frydenberg & Lewis, 1991a, 1993b; Lawson, 1994). With regard to the specific concern of exam stress, adolescents were most likely to use strategies of focussing on solving the problem, working hard to achieve, seeking relaxing diversions and physical recreation. The strategies adolescents used the least when coping with exam stress were not coping, seeking professional help and seeking spiritual support. It was predicted that students would employ similar coping strategies at times of great stress (exam time) compared to non exam time. An overall examination of these results suggests that at both times adolescents employed similar coping strategies.

A similar factor structure for the general and specific forms of the ACS also supports this conclusion. Therefore, in the current investigation, adolescents employed very similar coping strategies at periods of high stress (exam time) as well as at periods of low stress, indicating cross situational coping consistency. This finding supports the literature suggesting that adolescents utilise particular strategies, regardless of the problem which confronts them (Cohen & Frydenberg, 1993; Compas, Malcarne, &

Fondacaro, 1985; Frydenberg 1989, in Frydenberg & Lewis, 1991; McCubbin & Patterson, 1986; Wills, 1986).

Nevertheless, the present study has also established that coping is a complex phenomenon and that individual circumstances and differences will affect the coping strategies employed by adolescents. For example, it was hypothesised that males and females would employ different coping styles for all stress periods. A significant gender difference was found in adolescents' usage of reference to others, with females employing these coping strategies more than males. A significant gender difference was also found in adolescents' usage of productive strategies, with males employing these strategies more than females. No gender differences were found for usage of non productive coping strategies. These results occurred in relation to both general concerns as well as the specific concern of exam stress. These findings support research conducted by Frydenberg (1994), Frydenberg and Lewis (1993b), Olah (1995), and Seiffge-Krenke and Shulman (1990). An exception is that Frydenberg (1994) found females also to use non productive strategies more than males on the ACS.

It was also predicted that more "able" students would employ more productive coping strategies than "average" students. The present study also found some evidence that coping varied in relation to self reported ability level. That is, for general concerns, a significant difference was found in the usage of non productive coping strategies, with average students employing non productive strategies more than more able or higher ability students (top 10 to 20%). This finding provides support for previous research (e.g., Cohen & Frydenberg, 1993; Gintner, West, & Zarski, 1989). However, in the present study, no significant differences were found for ability level in relation to reference to others or productive strategies (focus on solving the problem). No significant differences for ability were found on any coping style in relation to the specific concern of exam stress.

Females were also predicted to report as coping more effectively with the demands they face in general and during exam time. Some support for this proposal was found, as in general, females perceived themselves as coping more effectively with stress than did males. However, this trend was not continued for the period of high stress (exam time).

It was also predicted that "able" students would report as coping more effectively than average ability students. Results of the present investigation did not support this prediction, and were also contrary to research conducted by Allen and Hiebert (1991) and Tyszkowa (1990). Some reasons for this inconsistency may have been related to the usage of a self reported measure of ability. Modest ratings may have been given by able students, or able students may have not measured their coping effectiveness in relative terms to others or average students. That is, they may not feel as though they cope more effectively, but when compared to a general pool of others students, they may well cope better without realising this fact.

The final hypothesis was that there would be a difference in the rankings given to stressful everyday events and enduring life strain between state and private school students. Results from the present investigation do provide some support for this. The rankings given to "money problems" varied the most markedly between private and state school students, with more state school students ranking this issue highly in their sequential rankings given to everyday stressors and enduring life strain. Another difference appeared in the rankings given to "exams" and "academic workload", with private school students ranking these more highly in their sequential rankings given to everyday stressors and enduring life strain. State school students also had a slight tendency to rank "relationships with the opposite sex" more highly than private school students.

Help seeking behaviour was also examined. Results from the present investigation show that the majority of participants firstly; would seek advice or guidance when coping with stress; and secondly know where to seek advice when coping with stress.

An analysis of help seeking behaviour and the three main coping styles revealed some significant results. It was found that the majority of participants who used the non productive coping style rated that they would not seek advice or guidance in coping with stress from general concerns, whereas the majority of participants who used the coping style of reference to others rated they would seek advice or guidance in coping with stress for both general issues and the specific concern of exam stress. In addition, the majority of participants who used the coping style of focus on solving the problem rated that they would know where to seek advice when coping with stress from exams. Results also revealed that participants were most likely to approach friends of the same sex for help or guidance in coping with stress. These results are consistent with those obtained by Boldero and Fallon (1995). Mothers were the second most nominated source when looking for help or guidance in coping with stress.

The overall findings of this investigation confirm results from numerous researchers, for example, Cohen and Frydenberg (1993), Frydenberg and Lewis (1991a, 1993b, 1994), Frydenberg (1993), Lawson (1994), and Seiffge-Krenke and Shulman (1990). Adolescents at exam time and in general tended to employ coping strategies which dealt directly with solving the problem, whilst attending to their physical well being. This occurred despite a reported variation in the intensity of stress. A number of coping strategies and styles were found to vary in relation to gender and ability. Females used the coping style of reference to others more than males, with males utilising the coping style of focussing on solving the problem more than females. Average students were found to use non productive coping strategies more than able students. These findings also provide support for Cohen and Frydenberg's (1993) proposition that students have a hierarchy of preferred coping styles for dealing with problems, and that these are independent of the nature of the concern. In addition, these findings reinforce those of Frydenberg and Lewis (1994), as they support a conceptualisation of coping which focuses on both the transitory or variable nature of coping behaviour (state) and the relatively stable individual differences in coping behaviour (trait). Finally, this

investigation also provides increased support for the effectiveness, reliability, and predictive validity of the ACS.

Limitations in the present investigation do exist and must be taken into account when examining the present findings, or considering improvements in future experimental investigations. For example, one limitation previously mentioned may be that a self report measure of coping was utilised. Adolescents may have inaccurately reported their coping methods. That is, self report ratings may not accurately reflect actual behaviour. Therefore, it may be beneficial to use a multiple informant approach in which the participants' family and friends also report on the participant's coping methods. One can then assess the covariation of a subject report and those of external observers who have observed the coping activity. Modest associations between adolescents' reported coping efforts and the reports of others who observed them, would provide some criterion validity for the use of self-report measures of coping (Jorgensen & Dusek, 1990).

Another limitation regarding whether participants correctly identified their coping methods related to whether what they believe they do, actually occurs in reality. That is, they may believe they cope a certain way, but in reality cope in a very different way. However, evidence from Carver, Scheier, and Weintraub (1989) does suggest that situational (i.e., reported coping efforts for a specific situation) and dispositional (i.e., reporting how one usually copes with stress) measures of coping correlate modestly.

Longitudinal data would also be beneficial when assessing the consistency of participants' coping methods.

In addition, the use of mid-year examinations as a natural stressor meant that a strict experimental manipulations of the variables were not possible. For example, different individuals had different numbers of exams, different subject combinations, and different exam timetables. This meant that the impact of this stress differed between individuals. However, the use of examinations as natural stressor was beneficial in that

all participants did encounter examinations in some form, therefore another stressor did not need to be introduced or found. A plethora of research indicates students do find examinations stressful (Abella & Heslin, 1989; Endler, et al., 1994; Folkman & Lazarus, 1985; Gintner, et al., 1989).

The majority of adolescents in Australia will effectively cope with the stressors they face and move successfully towards adulthood. Nevertheless, knowledge concerning adolescent stress, coping, and adaptive and maladaptive coping responses is extremely important for professionals and individuals alike. Many challenging and piquant questions arise in relation to adolescent stress and coping and this is certainly an area undergoing and benefiting from much research, investigation and review.

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APPENDIX A:

INSTRUCTIONS FOR THE ADDITIONAL QUESTIONNAIRE

INSTRUCTIONS FOR ADDITIONAL ADOLESCENT COPING QUESTIONNAIRE

INITIAL VISIT

Hello, my name is Amanda Faulkner. I'm a Master of Psychology student from the University of Tasmania. I'm doing a study on adolescents (aged 16-17 years) and the methods they use to cope with general and specific concerns in their daily life.

If you are willing to help me with my research I will ask you to fill in two questionnaires. The Adolescent Coping Scale (hold up) and this Additional Questionnaire (hold up). All the information I receive in these questionnaires is strictly confidential. I will keep all questionnaires in a locked filing cabinet in the Psychology Department at the University. Participation in this research is entirely voluntary. If you do not choose to participate, tell me when I come around with the questionnaires in a minute.

I will just quickly explain how to fill in each questionnaire.

Firstly, the Adolescent Coping Scale. This has two sides, a pink side and a blue side. I just want you to fill in the **blue** side today. I do need your name (or student number if available), sex, age, year level, school name, and today's date filled in here on the front (point). This is because in a month or so I will return, and ask you to fill in the pink side. So, I need to give you the same form back. Remember, everything you write is kept confidential.

(Hold up ACS) Students have a number of concerns or worries about things such as work, family, friends, the world and the like. Below is a list of ways in which people your age cope with a variety of concerns or problems (point). Please indicate by circling the appropriate number, the things you do to deal with your concerns or worries. Work down the page and circle 1, 2, 3, 4 or 5 as you come to each statement. There are no

right or wrong answers. Do not spend too much time on any statement but give the answer which best describes how you feel.

For example, if you **sometimes** cope with general concerns by "Talk to others to see what they would do if they had a problem" you would circle 3, as shown below (point to bottom part of ACS).

So 1 stands for - doesn't apply or don't do it, 2 - Used very little, 3 - Used sometimes, 4 - Used often, and 5 - Used a great deal. Any Questions?

In the second, additional questionnaire, (hold up) you will be asked to read the question and simply put a cross in the **one** box which best describes how you feel (unless otherwise specified).

For example, the first question reads: "What times of the school year do you find the most stressful?"

You would put a cross into **one** box next to beginning of term, exam time, end of term, none or other. If you chose 'other' in any question, I have asked you to briefly specify your thoughts on the line next to the box (point to the line).

So, in this example, if you believe that none of these options (point) suit, however, you do find the first day of school extremely stressful, you would cross the 'other' box, and write 'the first day of term' here (point to please specify).

Once again, there are no right or wrong answers. Just answer the option that best describes how you feel.

I will bring the forms around now. Remember, participation is voluntary, and if you have any questions or comments, please do not hesitate to ask.

INSTRUCTIONS FOR ADDITIONAL ADOLESCENT COPING QUESTIONNAIRE

RETURN VISIT

If you remember, my name is Amanda Faulkner. I'm a Master of Psychology student from the University of Tasmania. I'm doing a study on adolescents (aged 16-17 years) and the methods they use to cope with general and specific concerns in their daily life. I came to your school about a month ago, and asked willing students to fill in these two questionnaires (show these questionnaires).

Today I am returning to ask those people who originally filled in these questionnaires, to simply complete the other side of the Adolescent Coping Scale. Last time you filled in the blue side, so today I would like you to fill in the **pink** side (show). This questionnaire is exactly the same as the blue one. However, when you fill in this questionnaire I want you to think specifically about **the methods you use to cope with exams**, only exams, not coping methods for other general concerns such as family and friends etc.

Once again, I will remind you that all the information I receive in these questionnaires is strictly confidential. I will keep all the questionnaires in a locked filing cabinet in the Psychology Department at the University. Participation in this research is also entirely voluntary. If you do not chose to participate, tell me when I come around with the questionnaires in a minute.

I will just quickly remind you how to fill in this questionnaire.

Just fill in the pink side. You don't need to fill in details such as your name etc, as you have already done so on the other side. Just fill in today's date.

(Hold up ACS) Students have a number of concerns or worries about things such as **exams**. Below is a list of ways in which people your age cope with a variety of exam

concerns (point). Please indicate by circling the appropriate number, the things you do to deal with your exam concerns or worries. Work down the page and circle 1, 2, 3, 4 or 5 as you come to each statement. There are no right or wrong answers. Do not spend too much time on any statement but give the answer which best describes how you feel.

For example, if you **sometimes** cope with exam concerns by "Talk to others to see what they would do if they had a problem" you would circle 3, as shown below (point to bottom part of ACS).

So 1 stands for - doesn't apply or don't do it, 2 - Used very little, 3 - Used sometimes, 4 - Used often, and 5 - Used a great deal. Any Questions?

I will bring the forms around now. Remember, participation is voluntary, and if you have any questions or comments, please do not hesitate to ask.

APPENDIX B:

THE ADDITIONAL QUESTIONNAIRE

- CONFIDENTIAL -

ADDITIONAL COPING QUESTIONNAIRE

Name:

School:

Sex: Male/Female

Age:

Year Level:

Date:/...../.....

Day Month Year

Please answer ALL questions

Number:_____

Question 1.

What times of the school year do you find most stressful?
(Indicate by crossing the box for the most stressful period)

- Beginning of term☐
- Exam time☐
- End of term☐
- None☐
- Other☐ Please specify.....

Question 2.

Please rate the **level of stress** you feel at exam time as compared to other times in the school year.

Exam Time		Other periods of the year	
<u>Stress level</u>		<u>Stress level</u>	
Extreme	<input type="checkbox"/>	Extreme	<input type="checkbox"/>
Very High	<input type="checkbox"/>	Very High	<input type="checkbox"/>
High	<input type="checkbox"/>	High	<input type="checkbox"/>
Moderate	<input type="checkbox"/>	Moderate	<input type="checkbox"/>
Low	<input type="checkbox"/>	Low	<input type="checkbox"/>
None	<input type="checkbox"/>	None	<input type="checkbox"/>

Question 3.

A) Please rate how you feel **you cope** with stress during **exam time**.

- Very well☐
- Well☐
- Adequately☐
- Poorly☐
- Very poorly☐
- Other☐ Please specify

B) Please rate how you feel **you cope** with stress **in general**.

- Very well☐
- Well☐
- Adequately☐
- Poorly☐
- Very poorly☐
- Other☐ Please specify

Number: _____

Question 4.

Please number the following in order from 1 through to 7, where 1 is the most stressful, 2 the second most stressful, etc, and 7 is the least stressful.

Please number every box. No number can be used twice.

- | | |
|-------------------------------------|---|
| Money problems | <input type="checkbox"/> |
| Family problems | <input type="checkbox"/> |
| Relationships with the opposite sex | <input type="checkbox"/> |
| Relationships with friends | <input type="checkbox"/> |
| Academic workload | <input type="checkbox"/> |
| Exams | <input type="checkbox"/> |
| Sport and other activities | <input type="checkbox"/> |
| Illness | <input type="checkbox"/> |
| Other | <input type="checkbox"/> Please specify |

Question 5.

Where would you place yourself in the class in terms of scholastic ability?
Please cross **one** box only.

- | | |
|---------|--------------------------|
| Top 10% | <input type="checkbox"/> |
| Top 20% | <input type="checkbox"/> |
| Average | <input type="checkbox"/> |
| Other | <input type="checkbox"/> |

Question 6.

If you felt you needed advice or guidance in coping with stress, would you;

- | | | |
|------------------------------|----------|-----------------|
| A. Seek advice | Yes / No | (Please circle) |
| B. Know where to seek advice | Yes / No | (Please circle) |

Question 7.

If you were to seek advice or guidance in coping with stress, who would you be most likely to approach?

You may tick more than one box.

- | | |
|-----------------------|--|
| Friend - same sex | <input type="checkbox"/> |
| Friend - opposite sex | <input type="checkbox"/> |
| Mother | <input type="checkbox"/> |
| Father | <input type="checkbox"/> |
| Teacher | <input type="checkbox"/> |
| Guidance officer | <input type="checkbox"/> |
| Brother/sister | <input type="checkbox"/> |
| Doctor | <input type="checkbox"/> |
| School nurse | <input type="checkbox"/> |
| Priest | <input type="checkbox"/> |
| Other | <input type="checkbox"/> Please specify..... |

APPENDIX C:

STATISTICAL TESTS

Level of stress reported at exam time compared with other times of the year

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
EXAMLEV	179	.331	.000	2.5587	1.157	.086
OTHERLEV				3.9665	.988	.074

Paired Differences			t-value	df	2-tail Sig
Mean	SD	SE of Mean			
-1.4078	1.248	.093	-15.09	178	.000
95% CI (-1.592, -1.224)					

- - - - - F A C T O R A N A L Y S I S - - - - -
FOR GENERAL COPING

Analysis number 1 Listwise deletion of cases with missing values

Extraction 1 for analysis 1, Principal Components Analysis (PC)

Initial Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
		*				
GENCOP1	1.00000	*	1	2.93261	16.3	16.3
GENCOP2	1.00000	*	2	2.16679	12.0	28.3
GENCOP3	1.00000	*	3	1.62262	9.0	37.3
GENCOP4	1.00000	*	4	1.44018	8.0	45.3
GENCOP5	1.00000	*	5	1.24775	6.9	52.3
GENCOP6	1.00000	*	6	1.03262	5.7	58.0
GENCOP7	1.00000	*	7	.95049	5.3	63.3
GENCOP8	1.00000	*	8	.90569	5.0	68.3
GENCOP9	1.00000	*	9	.79033	4.4	72.7
GENCOP10	1.00000	*	10	.75051	4.2	76.9
GENCOP11	1.00000	*	11	.69745	3.9	80.8
GENCOP12	1.00000	*	12	.67542	3.8	84.5
GENCOP13	1.00000	*	13	.58560	3.3	87.8
GENCOP14	1.00000	*	14	.53714	3.0	90.8
GENCOP15	1.00000	*	15	.50166	2.8	93.5
GENCOP16	1.00000	*	16	.45086	2.5	96.0
GENCOP17	1.00000	*	17	.37431	2.1	98.1
GENCOP18	1.00000	*	18	.33797	1.9	100.0

PC extracted 3 factors.

Factor Matrix:

	Factor 1	Factor 2	Factor 3
GENCOP1	.01026	.53428	-.42033
GENCOP2	-.32994	.23939	-.25214
GENCOP3	-.33033	.40316	-.11119
GENCOP4	.42418	.27741	-.27381
GENCOP5	.07308	.16340	.51989
GENCOP6	.12016	.61214	.18574
GENCOP7	.54358	.31630	-.04501
GENCOP8	.52914	.11311	.27470
GENCOP9	.53106	.11283	.24005
GENCOP10	.25495	.56524	-.17389
GENCOP11	.54633	-.02336	.42509
GENCOP12	.69046	.06956	-.14289
GENCOP13	.44502	-.09200	.22994
GENCOP14	.19489	.32995	-.39288
GENCOP15	-.50699	.40621	.16927
GENCOP16	.02481	.41442	.09420
GENCOP17	-.38779	.42356	.51648
GENCOP18	-.41599	.31494	.33508

Final Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
GENCOP1	.46224	*	1	2.93261	16.3	16.3
GENCOP2	.22974	*	2	2.16679	12.0	28.3
GENCOP3	.28402	*	3	1.62262	9.0	37.3
GENCOP4	.33185	*				
GENCOP5	.30233	*				
GENCOP6	.42365	*				
GENCOP7	.39755	*				
GENCOP8	.36824	*				
GENCOP9	.35238	*				
GENCOP10	.41473	*				
GENCOP11	.47972	*				
GENCOP12	.50200	*				
GENCOP13	.25938	*				
GENCOP14	.30120	*				
GENCOP15	.45071	*				
GENCOP16	.18123	*				
GENCOP17	.59653	*				
GENCOP18	.38451	*				

OBLIMIN rotation 1 for extraction 1 in analysis 1 - Kaiser Normalization.

OBLIMIN converged in 18 iterations.

Pattern Matrix:

	Factor 1	Factor 2	Factor 3
GENCOP1	-.28745	.63249	.04407
GENCOP2	-.42998	.18722	.10268
GENCOP3	-.34769	.23085	.30320
GENCOP4	.14092	.52355	-.17417
GENCOP5	.38265	-.13690	.43323
GENCOP6	.18326	.39901	.46866
GENCOP7	.37877	.47305	-.03742
GENCOP8	.58247	.14017	.05983
GENCOP9	.56175	.15983	.03507
GENCOP10	.05957	.61558	.14045
GENCOP11	.69892	-.03735	.07066
GENCOP12	.44206	.40163	-.31623
GENCOP13	.49816	-.02039	-.06855
GENCOP14	-.11639	.53821	-.13601
GENCOP15	-.30527	.00897	.56514
GENCOP16	.05984	.26533	.31701
GENCOP17	.00945	-.12293	.76984
GENCOP18	-.12369	-.11452	.58713

Factor Correlation Matrix:

	Factor 1	Factor 2	Factor 3
Factor 1	1.00000		
Factor 2	.07694	1.00000	
Factor 3	-.11003	.05043	1.00000

3 PC EXACT factor scores will be saved.

Following factor scores will be added to the working file:

Name	Label			
FAC1_1	REGR factor score	1 for analysis	1	NON-PRODUCTIVE COPING
FAC2_1	REGR factor score	2 for analysis	1	REFERENCE TO OTHERS
FAC3_1	REGR factor score	3 for analysis	1	SOLVING THE PROBLEM

- - - - - O N E W A Y - - - - -
 FACTOR SCORE VARIABLES BY SEX

Variable FAC1_1 REGR factor score 1 for analysis 1
 By Variable SEX

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	.5441	.5441	.5427	.4623
Within Groups	174	174.4559	1.0026		
Total	175	175.0000			

- - - - - O N E W A Y - - - - -

Variable FAC2_1 REGR factor score 2 for analysis 1
 By Variable SEX

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	21.9571	21.9571	24.9639	.0000
Within Groups	174	153.0429	.8796		
Total	175	175.0000			

- - - - - O N E W A Y - - - - -

Variable FAC3_1 REGR factor score 3 for analysis 1
 By Variable SEX

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	6.8712	6.8712	7.1111	.0084
Within Groups	174	168.1288	.9663		
Total	175	175.0000			

- - - - - O N E W A Y - - - - -
FACTOR SCORE VARIABLES BY ACADEMIC ABILITY

Variable FAC1_1 REGR factor score 1 for analysis 1
By Variable ABILITY

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	7.8517	3.9258	4.0626	.0189
Within Groups	167	161.3770	.9663		
Total	169	169.2287			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	27	-.4626	1.0053	.1935	-.8603 TO -.0650
Grp 2	54	-.0482	.9903	.1348	-.3184 TO .2221
Grp 3	89	.1487	.9719	.1030	-.0560 TO .3534
Total	170	-.0109	1.0007	.0767	-.1624 TO .1406

GROUP	MINIMUM	MAXIMUM
Grp 1	-1.9383	1.2637
Grp 2	-1.7309	2.9010
Grp 3	-1.7454	3.4263
TOTAL	-1.9383	3.4263

- - - - - O N E W A Y - - - - -

Variable FAC1_1 REGR factor score 1 for analysis 1
By Variable ABILITY

Multiple Range Tests: Student-Newman-Keuls test with significance level .050

The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq .6951 * RANGE * \sqrt{1/N(I) + 1/N(J)}$
 with the following value(s) for RANGE:

Step	2	3
RANGE	2.81	3.35

(*) Indicates significant differences which are shown in the lower triangle

		G G G
		r r r
		p p p
		1 2 3
Mean	ABILITY	
-.4626	Grp 1	
-.0482	Grp 2	
.1487	Grp 3	*

- - - - - O N E W A Y - - - - -

Variable FAC2_1 REGR factor score 2 for analysis 1
By Variable ABILITY

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	1.0499	.5250	.5124	.6000
Within Groups	167	171.0960	1.0245		
Total	169	172.1460			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	27	-.1744	1.1882	.2287	-.6444 TO .2957
Grp 2	54	.0652	1.1174	.1521	-.2397 TO .3702
Grp 3	89	.0049	.8804	.0933	-.1805 TO .1904
Total	170	-.0044	1.0093	.0774	-.1572 TO .1484

GROUP	MINIMUM	MAXIMUM
Grp 1	-3.5352	1.7932
Grp 2	-2.3831	2.4820
Grp 3	-2.1230	2.4653
TOTAL	-3.5352	2.4820

- - - - - O N E W A Y - - - - -

Variable FAC2_1 REGR factor score 2 for analysis 1
By Variable ABILITY

Multiple Range Tests: Student-Newman-Keuls test with significance level .050

The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq .7157 * RANGE * \sqrt{1/N(I) + 1/N(J)}$
 with the following value(s) for RANGE:

Step	2	3
RANGE	2.81	3.35

- No two groups are significantly different at the .050 level

- - - - - O N E W A Y - - - - -

Variable FAC3_1 REGR factor score 3 for analysis 1
By Variable ABILITY

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	1.3373	.6686	.6993	.4984
Within Groups	167	159.6713	.9561		
Total	169	161.0085			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int	for Mean
Grp 1	27	-.0468	1.0263	.1975	-.4528 TO	.3592
Grp 2	54	-.0574	.9541	.1298	-.3179 TO	.2030
Grp 3	89	.1236	.9772	.1036	-.0823 TO	.3294
Total	170	.0390	.9761	.0749	-.1088 TO	.1868

GROUP	MINIMUM	MAXIMUM
Grp 1	-3.2953	1.3298
Grp 2	-2.1385	1.6563
Grp 3	-3.2912	2.7680
TOTAL	-3.2953	2.7680

- - - - - O N E W A Y - - - - -

Variable FAC3_1 REGR factor score 3 for analysis 1
By Variable ABILITY

Multiple Range Tests: Student-Newman-Keuls test with significance level .050

The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq .6914 * RANGE * \sqrt{1/N(I) + 1/N(J)}$
 with the following value(s) for RANGE:

Step	2	3
RANGE	2.81	3.35

- No two groups are significantly different at the .050 level

F A C T O R A N A L Y S I S
FOR SPECIFIC (EXAM STRESS) COPING

Analysis number 1 Listwise deletion of cases with missing values

Extraction 1 for analysis 1, Principal Components Analysis (PC)

Initial Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
SPCOP1	1.00000	*	1	3.76465	20.9	20.9
SPCOP2	1.00000	*	2	2.17041	12.1	33.0
SPCOP3	1.00000	*	3	1.76319	9.8	42.8
SPCOP4	1.00000	*	4	1.27417	7.1	49.8
SPCOP5	1.00000	*	5	1.20135	6.7	56.5
SPCOP6	1.00000	*	6	1.04702	5.8	62.3
SPCOP7	1.00000	*	7	.88441	4.9	67.3
SPCOP8	1.00000	*	8	.81982	4.6	71.8
SPCOP9	1.00000	*	9	.80743	4.5	76.3
SPCOP10	1.00000	*	10	.75204	4.2	80.5
SPCOP11	1.00000	*	11	.60405	3.4	83.8
SPCOP12	1.00000	*	12	.53697	3.0	86.8
SPCOP13	1.00000	*	13	.50337	2.8	89.6
SPCOP14	1.00000	*	14	.44061	2.4	92.1
SPCOP15	1.00000	*	15	.39822	2.2	94.3
SPCOP16	1.00000	*	16	.38051	2.1	96.4
SPCOP17	1.00000	*	17	.37184	2.1	98.4
SPCOP18	1.00000	*	18	.27992	1.6	100.0

PC extracted 3 factors.

Factor Matrix:

	Factor 1	Factor 2	Factor 3
SPCOP1	.34890	.57704	-.15280
SPCOP2	-.23253	.33404	-.21135
SPCOP3	-.28230	.46151	-.34580
SPCOP4	.63800	.16949	-.10500
SPCOP5	.32004	-.00044	.52401
SPCOP6	.47603	.39949	.34056
SPCOP7	.66558	.04031	-.04946
SPCOP8	.61697	-.09538	-.06885
SPCOP9	.55475	-.08704	.24275
SPCOP10	.25149	.58199	-.26555
SPCOP11	.66739	-.24496	.11194
SPCOP12	.75040	-.10564	-.18138
SPCOP13	.53355	-.01812	.14705
SPCOP14	.35110	.25195	-.40892
SPCOP15	-.28700	.52467	.13816
SPCOP16	.18260	.43016	-.20940
SPCOP17	-.05852	.37485	.70061
SPCOP18	-.20703	.48137	.49931

Final Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
SPCOP1	.47805	*	1	3.76465	20.9	20.9
SPCOP2	.21032	*	2	2.17041	12.1	33.0
SPCOP3	.41226	*	3	1.76319	9.8	42.8
SPCOP4	.44680	*				
SPCOP5	.37701	*				
SPCOP6	.50218	*				
SPCOP7	.44707	*				
SPCOP8	.39449	*				
SPCOP9	.37424	*				
SPCOP10	.47247	*				
SPCOP11	.51795	*				
SPCOP12	.60716	*				
SPCOP13	.30663	*				
SPCOP14	.35397	*				
SPCOP15	.37674	*				
SPCOP16	.26222	*				
SPCOP17	.63479	*				
SPCOP18	.52389	*				

OBLIMIN rotation 1 for extraction 1 in analysis 1 - Kaiser Normalization.

OBLIMIN converged in 16 iterations.

Pattern Matrix:

	Factor 1	Factor 2	Factor 3
SPCOP1	.18662	.63802	.14844
SPCOP2	-.33417	.32852	.00456
SPCOP3	-.43569	.49097	-.04183
SPCOP4	.55525	.34685	-.03706
SPCOP5	.41712	-.19388	.43042
SPCOP6	.44790	.26773	.47168
SPCOP7	.61923	.21837	-.05782
SPCOP8	.59572	.10489	-.14186
SPCOP9	.60008	-.06388	.13231
SPCOP10	.06855	.67689	.05990
SPCOP11	.71206	-.09953	-.06730
SPCOP12	.70191	.18648	-.25069
SPCOP13	.54582	.03719	.08725
SPCOP14	.19982	.50276	-.23869
SPCOP15	-.35088	.29227	.40495
SPCOP16	.04475	.50628	.03322
SPCOP17	.01652	-.06650	.79604
SPCOP18	-.18950	.08948	.68706

Factor Correlation Matrix:

	Factor 1	Factor 2	Factor 3
Factor 1	1.00000		
Factor 2	.04300	1.00000	
Factor 3	-.02318	.02730	1.00000

3 PC EXACT factor scores will be saved.

Following factor scores will be added to the working file:

Name	Label			
FAC1_2	REGR factor score	1 for analysis	1	NON-PRODUCTIVE COPING
FAC2_2	REGR factor score	2 for analysis	1	REFERENCE TO OTHERS
FAC3_2	REGR factor score	3 for analysis	1	FOCUS ON SOLVING THE PROBLEM

----- O N E W A Y -----
 FACTOR SCORE VARIABLES BY SEX

Variable FAC1_2 REGR factor score 1 for analysis 1
 By Variable SEX

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	2.8759	2.8759	2.9067	.0900
Within Groups	177	175.1241	.9894		
Total	178	178.0000			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int	for Mean
Grp 1	82	-.1379	1.0190	.1125	-.3618 TO	.0860
Grp 2	97	.1165	.9737	.0989	-.0797 TO	.3128
Total	179	.0000	1.0000	.0747	-.1475 TO	.1475

GROUP	MINIMUM	MAXIMUM
Grp 1	-2.2971	2.8397
Grp 2	-1.9459	3.0748
TOTAL	-2.2971	3.0748

No range tests performed with fewer than three non-empty groups.

----- O N E W A Y -----

Variable FAC2_2 REGR factor score 2 for analysis 1
 By Variable SEX

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	17.8227	17.8227	19.6945	.0000
Within Groups	177	160.1773	.9050		
Total	178	178.0000			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int	for Mean
Grp 1	82	-.3432	.9817	.1084	-.5589 TO	-.1275
Grp 2	97	.2901	.9249	.0939	.1037 TO	.4765
Total	179	.0000	1.0000	.0747	-.1475 TO	.1475

GROUP	MINIMUM	MAXIMUM
Grp 1	-3.1963	1.6460
Grp 2	-2.0542	2.5452
TOTAL	-3.1963	2.5452

No range tests performed with fewer than three non-empty groups.

----- O N E W A Y -----

Variable FAC3_2 REGR factor score 3 for analysis 1
 By Variable SEX

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	13.8749	13.8749	14.9633	.0002
Within Groups	177	164.1251	.9273		
Total	178	178.0000			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int	for Mean
Grp 1	82	.3028	.9726	.1074	.0891 TO	.5165
Grp 2	97	-.2560	.9547	.0969	-.4484 TO	-.0636
Total	179	.0000	1.0000	.0747	-.1475 TO	.1475

GROUP	MINIMUM	MAXIMUM
Grp 1	-2.3098	2.5387
Grp 2	-3.7073	2.0587
TOTAL	-3.7073	2.5387

No range tests performed with fewer than three non-empty groups.

- - - - - O N E W A Y - - - - -
FACTOR SCORE VARIABLES BY ACADEMIC ABILITY

Variable FAC1_2 REGR factor score 1 for analysis 1
By Variable ABILITY

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	2.9816	1.4908	1.5523	.2148
Within Groups	169	162.2990	.9603		
Total	171	165.2806			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int	for Mean
Grp 1	27	-.3199	1.1174	.2150	-.7619 TO	.1221
Grp 2	56	-.0459	1.0612	.1418	-.3301 TO	.2383
Grp 3	89	.0588	.8784	.0931	-.1262 TO	.2439
Total	172	-.0347	.9831	.0750	-.1827 TO	.1132

GROUP	MINIMUM	MAXIMUM
Grp 1	-2.2971	2.0477
Grp 2	-2.2317	2.8397
Grp 3	-1.7017	2.1609
TOTAL	-2.2971	2.8397

- - - - - O N E W A Y - - - - -

Variable FAC1_2 REGR factor score 1 for analysis 1
By Variable ABILITY

Multiple Range Tests: Student-Newman-Keuls test with significance level .050

The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq .6929 * RANGE * SQRT(1/N(I) + 1/N(J))$
 with the following value(s) for RANGE:

Step	2	3
RANGE	2.81	3.35

- No two groups are significantly different at the .050 level

- - - - - O N E W A Y - - - - -

Variable FAC2_2 REGR factor score 2 for analysis 1
By Variable ABILITY

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.9218	.4609	.4479	.6397
Within Groups	169	173.9100	1.0291		
Total	171	174.8318			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int	for Mean
Grp 1	27	-.1729	1.1900	.2290	-.6436 TO	.2978
Grp 2	56	.0191	.9855	.1317	-.2448 TO	.2830
Grp 3	89	.0330	.9752	.1034	-.1724 TO	.2384
Total	172	-.0039	1.0111	.0771	-.1560 TO	.1483

GROUP	MINIMUM	MAXIMUM
Grp 1	-2.4521	2.1442
Grp 2	-2.0181	2.5452
Grp 3	-3.1963	1.8669
TOTAL	-3.1963	2.5452

- - - - - O N E W A Y - - - - -

Variable FAC2_2 REGR factor score 2 for analysis 1
By Variable ABILITY

Multiple Range Tests: Student-Newman-Keuls test with significance level .050

The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq .7173 * RANGE * \sqrt{1/N(I) + 1/N(J)}$
with the following value(s) for RANGE:

Step 2 3
RANGE 2.81 3.35

- No two groups are significantly different at the .050 level

- - - - - O N E W A Y - - - - -

Variable FAC3_2 REGR factor score 3 for analysis 1
By Variable ABILITY

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.7025	.3512	.3438	.7095
Within Groups	169	172.6376	1.0215		
Total	171	173.3401			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int	for Mean
Grp 1	27	-.1476	.9108	.1753	-.5079 TO	.2127
Grp 2	56	.0398	1.0275	.1373	-.2353 TO	.3150
Grp 3	89	.0171	1.0280	.1090	-.1995 TO	.2336
Total	172	-.0013	1.0068	.0768	-.1529 TO	.1502

GROUP	MINIMUM	MAXIMUM
Grp 1	-2.0468	1.8617
Grp 2	-2.3858	2.0587
Grp 3	-3.7073	2.5387
TOTAL	-3.7073	2.5387

- - - - - O N E W A Y - - - - -

Variable FAC3_2 REGR factor score 3 for analysis 1
By Variable ABILITY

Multiple Range Tests: Student-Newman-Keuls test with significance level .050

The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq .7147 * RANGE * \sqrt{1/N(I) + 1/N(J)}$
with the following value(s) for RANGE:

Step 2 3
RANGE 2.81 3.35

- No two groups are significantly different at the .050 level

- - - - - O N E W A Y - - - - -
 SEX BY COPING ABILITY IN GENERAL

Variable GENCOPE
 By Variable SEX (MALES = 1; FEMALES = 2)

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	4.4127	4.4127	4.4335	.0367
Within Groups	177	176.1683	.9953		
Total	178	180.5810			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	81	2.3580	1.1103	.1234	2.1125 TO 2.6035
Grp 2	98	2.6735	.8941	.0903	2.4942 TO 2.8527
Total	179	2.5307	1.0072	.0753	2.3822 TO 2.6793

GROUP	MINIMUM	MAXIMUM
Grp 1	1.0000	8.0000
Grp 2	1.0000	5.0000

ANOVA - General coping style by 'Would you seek help?'

- - - - - O N E W A Y - - - - -

Variable FAC1_3 REGR factor score 1 for analysis 1
By Variable SEEK

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	5.0256	5.0256	5.1446	.0245
Within Groups	174	169.9744	.9769		
Total	175	175.0000			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	103	-.1423	.9413	.0928	-.3262 TO .0417
Grp 2	73	.2007	1.0514	.1231	-.0446 TO .4460
Total	176	.0000	1.0000	.0754	-.1488 TO .1488

GROUP	MINIMUM	MAXIMUM
Grp 1	-1.9383	3.4263
Grp 2	-1.7309	2.9010
TOTAL	-1.9383	3.4263

- - - - - O N E W A Y - - - - -

Variable FAC2_3 REGR factor score 2 for analysis 1
By Variable SEEK

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	11.2082	11.2082	11.9067	.0007
Within Groups	174	163.7918	.9413		
Total	175	175.0000			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	103	.2124	.9559	.0942	.0256 TO .3993
Grp 2	73	-.2998	.9902	.1159	-.5308 TO -.0687
Total	176	.0000	1.0000	.0754	-.1488 TO .1488

GROUP	MINIMUM	MAXIMUM
Grp 1	-2.1230	2.4820
Grp 2	-3.5352	1.6898
TOTAL	-3.5352	2.4820

- - - - - O N E W A Y - - - - -

Variable FAC3_3 REGR factor score 3 for analysis 1
By Variable SEEK

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	1.2010	1.2010	1.2023	.2744
Within Groups	174	173.7990	.9988		
Total	175	175.0000			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	103	.0695	.9968	.0982	-.1253 TO .2644
Grp 2	73	-.0981	1.0031	.1174	-.3322 TO .1359
Total	176	.0000	1.0000	.0754	-.1488 TO .1488

GROUP	MINIMUM	MAXIMUM
Grp 1	-2.6268	2.7680
Grp 2	-3.2953	1.6563
TOTAL	-3.2953	2.7680

ANOVA - Specific coping style by 'Would you seek help?'

- - - - - O N E W A Y - - - - -

Variable FAC1_4 REGR factor score 1 for analysis 1
By Variable SEEK

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	2.1049	2.1049	2.1181	.1473
Within Groups	177	175.8951	.9938		
Total	178	178.0000			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	103	-.0931	.9212	.0908	-.2732 TO .0869
Grp 2	76	.1262	1.0914	.1252	-.1232 TO .3756
Total	179	.0000	1.0000	.0747	-.1475 TO .1475

GROUP	MINIMUM	MAXIMUM
Grp 1	-2.2971	3.0748
Grp 2	-2.2317	2.8397
TOTAL	-2.2971	3.0748

- - - - - O N E W A Y - - - - -

Variable FAC2_4 REGR factor score 2 for analysis 1
By Variable SEEK

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	14.3368	14.3368	15.5051	.0001
Within Groups	177	163.6632	.9247		
Total	178	178.0000			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	103	.2431	.8850	.0872	.0701 TO .4161
Grp 2	76	-.3295	1.0569	.1212	-.5710 TO -.0880
Total	179	.0000	1.0000	.0747	-.1475 TO .1475

GROUP	MINIMUM	MAXIMUM
Grp 1	-2.0542	2.5452
Grp 2	-3.1963	1.6916
TOTAL	-3.1963	2.5452

- - - - - O N E W A Y - - - - -

Variable FAC3_4 REGR factor score 3 for analysis 1
By Variable SEEK

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	.0312	.0312	.0310	.8604
Within Groups	177	177.9688	1.0055		
Total	178	178.0000			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	103	.0113	.9530	.0939	-.1749 TO .1976
Grp 2	76	-.0154	1.0666	.1224	-.2591 TO .2284
Total	179	.0000	1.0000	.0747	-.1475 TO .1475

GROUP	MINIMUM	MAXIMUM
Grp 1	-2.3858	2.5387
Grp 2	-3.7073	2.0587
TOTAL	-3.7073	2.5387

ANOVA - General coping style by 'Know where to seek advice?'

- - - - - O N E W A Y - - - - -

Variable FAC1_3 REGR factor score 1 for analysis 1
By Variable WHERE

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	.2879	.2879	.2867	.5930
Within Groups	174	174.7121	1.0041		
Total	175	175.0000			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	133	-.0230	1.0233	.0887	-.1985 TO .1525
Grp 2	43	.0711	.9321	.1421	-.2157 TO .3580
Total	176	.0000	1.0000	.0754	-.1488 TO .1488

GROUP	MINIMUM	MAXIMUM
Grp 1	-1.9383	3.4263
Grp 2	-1.7309	2.2816
TOTAL	-1.9383	3.4263

- - - - - O N E W A Y - - - - -

Variable FAC2_3 REGR factor score 2 for analysis 1
By Variable WHERE

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	2.8647	2.8647	2.8957	.0906
Within Groups	174	172.1353	.9893		
Total	175	175.0000			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	133	.0725	1.0035	.0870	-.0996 TO .2447
Grp 2	43	-.2244	.9664	.1474	-.5218 TO .0730
Total	176	.0000	1.0000	.0754	-.1488 TO .1488

GROUP	MINIMUM	MAXIMUM
Grp 1	-3.5352	2.4820
Grp 2	-2.3831	1.2081
TOTAL	-3.5352	2.4820

- - - - - O N E W A Y - - - - -

Variable FAC3_3 REGR factor score 3 for analysis 1
By Variable WHERE

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	3.3412	3.3412	3.3867	.0674
Within Groups	174	171.6588	.9865		
Total	175	175.0000			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean		
Grp 1	133	.0783	.9515	.0825	-.0849	TO	.2415
Grp 2	43	-.2423	1.1145	.1700	-.5853	TO	.1007
Total	176	.0000	1.0000	.0754	-.1488	TO	.1488

GROUP	MINIMUM	MAXIMUM
Grp 1	-2.6268	2.7680
Grp 2	-3.2953	1.9811
TOTAL	-3.2953	2.7680

- - - - - O N E W A Y - - - - -

Variable FAC1_4 REGR factor score 1 for analysis 1
By Variable WHERE

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	.1098	.1098	.1092	.7414
Within Groups	177	177.8902	1.0050		
Total	178	178.0000			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	135	-.0141	.9845	.0847	-.1817 TO .1534
Grp 2	44	.0434	1.0567	.1593	-.2779 TO .3646
Total	179	.0000	1.0000	.0747	-.1475 TO .1475

GROUP	MINIMUM	MAXIMUM
Grp 1	-2.2971	3.0748
Grp 2	-2.2317	2.0796
TOTAL	-2.2971	3.0748

- - - - - O N E W A Y - - - - -

Variable FAC2_4 REGR factor score 2 for analysis 1
By Variable WHERE

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	.6510	.6510	.6498	.4213
Within Groups	177	177.3490	1.0020		
Total	178	178.0000			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	135	.0344	.9912	.0853	-.1343 TO .2032
Grp 2	44	-.1056	1.0309	.1554	-.4191 TO .2078
Total	179	.0000	1.0000	.0747	-.1475 TO .1475

GROUP	MINIMUM	MAXIMUM
Grp 1	-3.1963	2.5452
Grp 2	-2.1521	1.6916
TOTAL	-3.1963	2.5452

- - - - - O N E W A Y - - - - -

Variable FAC3_4 REGR factor score 3 for analysis 1
By Variable WHERE

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	5.5622	5.5622	5.7094	.0179
Within Groups	177	172.4378	.9742		
Total	178	178.0000			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean		
Grp 1	135	.1006	.9445	.0813	-.0601	TO	.2614
Grp 2	44	-.3088	1.1093	.1672	-.6460	TO	.0285
Total	179	.0000	1.0000	.0747	-.1475	TO	.1475

GROUP	MINIMUM	MAXIMUM
Grp 1	-2.3858	2.5387
Grp 2	-3.7073	1.9517
TOTAL	-3.7073	2.5387