ATTACHMENT, PERSONAL RESOURCES & COPING IN TRAIT-ANXIOUS

ADOLESCENT GIRLS

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ABSTRACT

ATTACHMENT, PERSONAL RESOURCES & COPING IN TRAIT-ANXIOUS ADOLESCENT GIRLS

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Adolescence is an important transitional time with biological and social changes. During adolescence there is a heightened risk of internalized and externalized problems such as, anxiety, depression, suicide, substance misuse, and conduct disorders. Some will navigate this challenging time with great mastery, while others may experience confusion, self-doubt, and distress. Protective factors or personal resources such as, parent and peer support, social and academic competence, and self-esteem can help navigate the transition with success.

The survey data was gathered from 246 adolescent girls between the ages 14 to 16-years old. The purpose of this study is to increase understanding of how trait-anxious adolescent girls cope with their problems, and how protective factors mediate the relationship between anxiety and coping. The protective factors in this study that are considered to foster healthy social and emotional outcomes for adolescents are secure parent and peer-attachment, social and academic competence, and extracurricular activities.

Findings from this study demonstrate the complexity of relationships among attachment, coping, and personal resources for trait-anxious girls during adolescence. For instance, trait-anxious girls were significantly more likely to utilize emotion-focused coping strategies: more specifically, they used self-controlling (regulation of feeling and
actions) coping, accepting responsibility coping (trying to make things right), and escape-avoidance coping (wishful thinking) significantly more than their non-trait-anxious counterparts. They were also more likely to use one of the problem-focused strategies specifically, confrontive coping (aggressive efforts to alter the situation). Furthermore, trait-anxious girls also had significantly less perceived mother and peer-attachment, and lower academic competence, relative to non-trait-anxious girls.

This study tested three hypotheses using a mediation model to indicate that, hypotheses 1 was not supported because trait-anxiety was negatively associated with seeking-support coping. However, as predicted, hypothesis 2 revealed full mediation of perceived insecure mother-attachment on the relationship between trait-anxiety and self-controlling coping, one of the emotion-focused coping strategies. Consistent with that hypothesis, perceived insecure mother-attachment also partially mediated the relationship between trait-anxiety and another emotion-focused strategy, escape-avoidance coping. Further, a component of hypothesis 3 was also established where, academic competence partially mediated the relationship between trait-anxiety and accepting responsibility coping which is an emotion-focused strategy. Notably, there was no mediating role of social competence or peer-attachment on the relationship between trait-anxiety and accepting responsibility coping. The electronic version of this dissertation is at OhioLink ETD Centre, www.ohiolink.edu/etd.
DEDICATION

This dissertation is dedicated in loving memory to Dr. Paz Buttedahl, who passed away during the writing of this dissertation. I am thankful to her for her support, encouragement and passion for all of my academic and professional endeavors.
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Chapter I
Introduction

Adolescents are faced with complex challenges. Most of the challenges are expected but make this stage of development very unique. These developmental challenges encompass biological, physical, social, and emotional changes. In light of this host of changes, young girls will experience stress throughout these developmental milestones. Adolescent girls experience stress as a natural part of their development and life experiences. The ways in which young girls cope with their stress appears to determine the outcome of each milestone. Managing stress is dependent on personal resources and coping strategies. In particular, protective factors can operate as a buffer to the negative effects of stress.

The ways in which adolescents are coping with their stress has been the focus of research for the past three decades. Adolescents are known to be at-risk for stress in the following areas: interpersonal, academic, social, and familial. Certain protective factors play important roles in buffering the effects of these stressors; as a protective factor, social support seems to provide a particularly protective mechanism for female adolescent well-being. Both parent and peer support can operate to reduce maladjustment and negative outcomes.

Renowned attachment theorist John Bowlby (1969) has extensively studied the infant-caregiver attachment and has developed a theory of “internal working models.” Early infant-caregiver attachment relationship can provide the emotional stability so infants can feel safe and secure in the world. An internal working model that represents a secure attachment pattern can provide the necessary inner resources for healthy psychological adjustment and well-being during transitions (Allen, Moore, Kuperminc, & Bell, et al., 1998). On the other hand, an insecure internal working model of attachment
can develop when the infant’s experience of the caregiver is distant and distrustful (Mukulincer & Florian, 1998). The view that the infant has of their attachment relationship will function as a guide for later experiences in relationship to self, other, and the world. Furthermore, this internal working model of attachment can also determine the development of personal resources available to the individual for coping with life stress.

**Purpose of the study**

This study is designed to expand our understanding of parent attachment and personal resourcefulness as protective factors in the lives of trait-anxious adolescent girls. Specifically, this survey design will examine the relationship between attachment, competence, coping and trait-anxiety. The study results will provide further evidence about how trait-anxious and non-anxious adolescent girls cope with stress and how security in their relationships with parents and peers can foster the use of healthy coping strategies. If we can better understand how non-anxious girls deal with their problems then we may be better able to assist those who experience trait-anxiety.

In addition, the data gathered can also lead to improve services, treatment, programs and interventions. Overall, the goal is to help to improve our knowledge of strength-based coping resources for adolescent girls who experience trait-anxiety.

**OPERATIONAL DEFINITIONS**

**Adolescence:** For the purpose of this study “early adolescence” will be examined. This is a sub-stage of adolescence which begins with the onset of puberty and ends at graduation from high school (Newman & Newman, 1999). The age range is from 14 to 17 years-old.
**Attachment:** Attachment is an internal working model of self and others as a representation of the attachment relationship between an infant and caregiver. During the interactions between the infant, caregiver and the environment, the experiences of the infant inform the understanding and expectations of the infant about the relationship to others (Bowlby, 1969). Indeed, the internal representation of infant-caregiver attachment can predict patterns of interactions in later relationships (Mikulincer & Florian, 1998). For the purpose of this study internal working models of attachment include two patterns: secure and insecure attachment. Each adolescent girl’s internal working model of attachment was measured by the Inventory of Parent and Peer-Attachment (IPPA-Revised; Armsden & Greenberg, 1987).

**Coping Process:** Coping is a process, not a style or a trait. The coping process is an interaction of the person’s appraisal of the stressor and the environment. Lazarus and Folkman (1984) defined 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” (p.141). Coping process and coping strategies are used interchangeably.

**Coping Strategies:** There are eight coping strategy subscales that comprise the Ways of Coping Questionnaire (WAYS-revised; Folkman & Lazarus, 1988) that measured the coping process or strategies of adolescent girls in this study.

1. **Confrontive Coping:** describes aggressive efforts to alter the situation and suggests some degree of hostility and risk-taking.

2. **Distancing:** describes cognitive efforts to detach one’s self and to minimize the significance of the situation.

3. **Self-Controlling:** describes efforts to regulate one’s feelings and actions.
4. **Seeking Social Support**: describes efforts to seek informational support, tangible support and emotional support.

5. **Accepting Responsibility**: acknowledges one’s own role in the problem with a concomitant theme of trying to put things right.

6. **Escape-Avoidance**: describes wishful thinking and behavioural efforts to escape or avoid the problem. Items on this scale contrast with those on the Distancing scale, which suggests detachment.

7. **Planful Problem-Solving**: describes deliberate problem-focused efforts to alter the situation, coupled with an analytic approach to solving the problem.

8. **Positive Reappraisal**: describes efforts to create positive meaning by focusing on personal growth. It also has a religious dimension.

**Emotion-Focused Coping**: Emotion-focused coping is an effort to manage or regulate stress related emotional responses. Emotion-focused coping is one of two scales on the Ways of Coping Questionnaire (WAYS-revised). The emotion-focused coping scale consists of six coping strategy subscales: Distancing, Self-Controlling, Seeking Social Support, Accepting Responsibility, Escape-Avoidance and Positive Reappraisal. Seeking Social Support can serve as two functions referring to either the Problem-Focused Scale (e.g., information seeking, tangible assistance) or Emotion-Focused Scale (e.g., sympathy) interactions with other.

**Insecure Attachment**: An insecure attachment is demonstrated when the adolescents’ internal working model of the quality of their relationship with parents and peers is perceived as distant and/or distrustful. Insecure attachment was measured using the IPPA-R (Armsden & Greenberg, 1987). Low scores on the Mother, Father or Peer-Attachment Scales (IPPA-R) demonstrated an internal working model of an insecure
attachment pattern based on how they perceive their relationship with a significant
caregiver (mother, father or other significant caregiver of choice) and peer.

**Personal Resources:** Personal resources include Peer-Attachment as measured by the
IPPA-R (Armsden & Greenberg, 1987) and Competence (extracurricular activities, social
and academic competence subscales) as measured by the Youth Self-Report (YSR)
(Achenbach & Rescorla, 2001).

**Problem-Focused Coping:** Problem-focused coping involves efforts to actively change
the person-environment relationship that is causing stress. Problem-focused coping is
one of two scales on the Ways of Coping Questionnaire (WAYS-revised). The Problem-
focused coping scale consists of three coping strategy subscales: Confrontive Coping
and Planful Problem-Solving. It can also include Seeking Social Support, which serves
as two functions, referring to either problem-focused (e.g., information seeking, tangible
assistance) or emotion-focused (e.g., sympathy) interactions with other.

**Protective Factors:** Protective factors help to alleviate the effects of risk and negative
outcomes (Fergus & Zimmerman, 2005). For the purpose of this study the following are
considered protective factors: secure mother-attachment (measured by IPPA-R);
emotion-focused and problem-focused coping (measured by WAYS); and personal
resources comprised of: secure peer-attachment (measured by IPPA-R); extracurricular
activities, social and academic competence (measured by IPPA-R and YSR), which
function to reduce the risk of negative outcomes.

**Secure Attachment:** Secure attachment was demonstrated when the adolescents’
internal working model of the quality of communication and trust in their relationship with
a significant caregiver (mother, father or significant other of choice) and peer is perceived as caring, trusting and emotionally satisfying. Secure attachment will be measured using the IPPA-R (Armsden & Greenberg, 1987). Higher scores on the Mother, Father and Peer-Attachment scale demonstrated a secure attachment pattern.

**Trait-Anxiety**: Trait-Anxiety as measured by the State-Trait-Anxiety Inventory (STAI-T) is defined by “how one feels generally” (Spielberger, 1983). Higher scores of general stress, worry and anxiety represents greater trait-anxiety. For the purpose of this study those who reported high trait-anxiety are categorized in the trait-anxious group, versus low scores on the trait-anxiety scale were deemed the non-anxious comparison group.
Literature Review

This section is a review of theory and research related to attachment, stress, anxiety and coping in adolescent females. First, adolescent development and stress will be discussed, followed by a review of anxiety, coping and attachment research. Then, the above-mentioned variables will be linked and discussed to further understand their association as described by the research literature. Last, the research questions and hypotheses for this study are stated.

Female Adolescent Development & Stress

Our development as human beings is a lifelong process and early stages of this process have been defined as pivotal. Each transitional stage during development is marked by change and completion of developmental tasks. Adolescence is a crucial developmental stage that is characterized by rapid growth and change. It has been characterized as a transitory stage of rapid growth and identity crisis between childhood and adulthood. These changes can bring about stress in the lives of young girls. Stress is defined as a “relationship between the person and the environment that is appraised by the person as relevant to his or her well-being and in which the person’s resources are taxed or exceeded” (Folkman & Lazarus, 1986, p. 572).

Newman and Newman (1999) commonly distinguish adolescence according to certain sub-stages for example “early adolescence” extends from the onset of puberty and ends with graduation from high school (ages 12 to 17). Many changes lie ahead for the maturing adolescent, including psychological and social growth. Such transitions extend beyond the attainment of physical and sexual maturity. Maturing adolescents are faced with many developmental tasks that have rather obscure boundaries. As such, adolescence can begin earlier and last longer than the teenage years. Although, biologically adolescence ends at the time of physical and sexual maturity both social and
emotional boundaries are not as clearly defined in terms of when an individual actually
attains a full sense of maturity in these areas, if ever.

Feminist scholars are developing new perspectives on the development of girls.
Heightened awareness and increasing evidence suggest that the development of
adolescent females has been overlooked by many theorists and most major
developmental theories. Feminist perspectives have recognized just how different male
and female development is and how listening to the female voice (Gilligan, 1993) reveals
the differences. For women, the initial concept of self is developed with the early
identification with their mothers as a nurturing figure. This experience is unique to
women because they are born to the same gendered parent. As a result, girls come to
experience themselves as less differentiated individuals than boys (Gilligan, 1993).
Unlike a brother, a female child does not need to relinquish her ties to her mother in
order to establish a separate gender identity (Sugar, 1993). Consequently, Gilligan
(1993) contends:

Relationships and particularly issues of dependency are experienced differently
by women and men. For boys and men, separation and individuation are critically
tied to gender identity since separation from the mother is essential for the
development of masculinity. For girls and women, issues of femininity or feminine
identity do not depend on the achievement of separation from the mother, or the
process of individuation. Since masculinity is defined through separation while
femininity is defined through attachment, male gender identity is threatened by
intimacy while female gender identity is threatened by separation (p.8).

Hence males tend to have greater difficulties with relationships, while females
are seen as having more problems associated with individuation. Females also define
themselves by the level of social interactions and personal relationship; this is not how
males develop (Gilligan, 1993). According to Erickson's psychosocial stages of
development (Atwater, 1992) the identity before intimacy sequence is the norm.
However, Gilligan (1993) contends that this is more characteristic of males rather than
females. Women are less concerned with viewing themselves as separate individuals
and are more concerned with intimate relationships. Gilligan (1993) states “while for men identity precedes intimacy and generativity in the optimal cycle of human separation and attachment, for women these tasks seem instead to be fused. Intimacy goes along with identity, as the female comes to know herself, as she is known, through her relationships with others (p.12).

According to Gilligan (1993) current developmental theories are inattentive to girls and feminine development. Traditional theories emphasize adolescence as a time defined as achieving such tasks as separation, individuation and autonomy-seeking (Gilligan, 1993): “Women’s failure to separate becomes by definition a failure to develop” (p.9). This perspective of feminine psychology suggests that adolescent development vastly differs for males and females.

Similarly, stress in adolescence can vary and studies have suggested that girls and boys cope with stress differently. Phelps and Jarvis (1994) examined self-reported stressors and patterns of coping strategies used by adolescents. A sample of 484 adolescents ages 14 to 18 participated in the study. The findings indicated that girls reported more interpersonal concerns related to their family, friends and boyfriends, whereas, boys reported stressors related to school grades and extracurricular activities. Furthermore, Sieffge-Krenke (2006) suggested that a vast majority of stress and worry experienced by adolescent girls tends to be related to interpersonal relationships (80%).

Hence, social and emotional challenges that adolescent girls experience as part of their natural growth and development process can bring about stress in their lives. It is realistic to assume that this developmental process is tumultuous in nature. Consequently, in order to understand adolescent development it is imperative to recognize that stress is an inevitable part of this process.
Anxiety

According to the U.S. Department of Health & Human Services (2006) as many as 1 in 10 young people may have developed an anxiety disorder. Kaplan and Sadock (1998) suggested there could be a genetic component that contributes to the development of anxiety disorders; they mentioned 50% of patients with panic disorders have at least one affected relative. Similarly, children or adolescents are more likely to have an anxiety disorder if their parents have anxiety disorders (U.S. Department of Health & Human Services, 2006).

Girls tend to be more likely to have Generalized Anxiety Disorder (GAD) than boys. In fact, 2 out of 3 children with GAD are girls (Anxiety BC, 2008). This is also true of adults, where GAD occurs more often in adult females than in adult males: about 55% to 60% of those presenting with the disorder are women (American Psychiatric Association, 2000). The disorder typically runs a fluctuating course, with periods of increased symptoms usually associated with life stress or impending difficulties.

In children and adolescents, GAD will include excessive worry about daily life events, such as competence and the quality of their performance. The focus of worry will vary throughout the duration of the disorder. Typically children and adolescents can be obsessive in seeking approval and require excessive reassurance about their performance and other worries. Children with the disorder often demonstrate overly conforming, perfectionist and self-doubting behaviours, and tend to redo tasks because of excessive dissatisfaction. Given their concerns are often about performance and achievement they find it difficult when their performance is being evaluated. They often fear catastrophic events, such as earthquakes or nuclear war.

Anxiety effects the cognitive process or thinking patterns of children. They often demonstrate rigid and inflexible thinking and excessive worry about competence, rules, time, daily transition and routines. These worries often interfere with their ability to enjoy
hobbies or other recreational activities. Some children may appear shy when, in fact, they are preoccupied with significant worries. Some children are aware that their worries are very extreme given a particular situation however; they may not have the ability to stop the worry.

Adolescents may refuse or be reluctant to attend school. The social impact that anxiety has on children and adolescents include social isolation/avoidance and result in: demanding to stay at home; withdrawing from social activities and school work; and experiencing low-self esteem and self-criticism.

**Coping**

Many theories have that attempted to conceptualize the coping process. For the purpose of this research, coping is viewed as a process where an individual assesses a situation that he or she evaluates as threatening and adopts a plan or solution to deal with the perceived stressful situation (Folkman & Lazarus, 1985, 1988; Folkman & Moskowitz, 2004). How individuals cope with their stress and why some individuals have more effective responses to their stressors than others, has been the focus of research in the social sciences for more than three decades. There are many theories that have been used to understand coping. Certainly, understanding which coping strategies seem to be effective for individuals dealing with daily stressors is essential in fostering healthy psychosocial adjustment.

**Stress & Coping Theory**

From the perspective of personality theorists they would contend that personality traits predispose people to cope with stress in a certain way, which influences a particular type of coping style. For instance, Kobasa (1979) proposed that “hardiness” is a personality style that is a "source of resistance to the negative effects of stressful life
events on health which is derived from existential personality theory” (Ouellette, Kobasa, & Puccetti, 1983, p.840). In contrast to personality style conceptualization, Billings and Moos (1984) examined the way in which individuals cope with a single stressful event. With this approach they proposed that how an individual copes with one or more stressful events is an indication of how they will cope with other stressful events in the future. The above-mentioned approaches distinguish stable coping styles or dispositions that are used to cope with daily stressors. According to Carver, Scheier, and Weintraub (1989), individuals with these approaches cope with new stressors in a way that represents a stable personality style or pre-established coping strategies that are applied across time and all situations.

On the other hand, Compas, Connor-Smith, Saltzman, Thomsen, and Wadsworth (2001) conceptualized coping as “successful adaptation to stress which includes the ways in which individuals manage their emotions, think constructively, regulate and direct their behaviour; control their automatic arousal, and act on the social and non-social environments to alter or decrease sources of stress” (p.87). This conceptualization appears to have resulted from cognitive theories of coping and stress researched by Lazarus and colleagues (Folkman & Lazarus, 1985, 1988; Folkman & Moskowitz, 2004). Lazarus’s work (1966) in the area of stress and coping has been the most influential work in the field and the most frequently cited research to date. Folkman and Lazarus (1985) defined coping as “cognitive and behavioural efforts to manage (master, reduce or tolerate) a troubled person-environment relationship” (p. 152). This cognitive theory of psychological stress and coping is “transactional” where the person and the environment are perceived as dynamic, mutually reciprocal and bi-directional in relation to each other (Folkman & Lazarus, 1985, 1988; Folkman & Moskowitz, 2004).

According to Folkman and Lazarus (1985) coping has two widely recognized functions: to address the problem that is causing the stress (problem-focused coping)
and to regulate the emotional reactions to the perceived stress (emotion-focused coping). Problem-focused responses require a plan and active steps for dealing with a situation they perceive as controllable. Problem-focused coping involves a rational formulation of a plan and a solution to the problem through information gathering and taking action to change the situation which is causing stress. It can also include irrational aggressive interpersonal efforts to alter the situation (confrontive coping). On the other hand, stressful situations can evoke an emotional reaction; this is when emotion-focused coping responses are relied upon. Thus, emotion-focused coping includes responses that assist individuals in regulating their emotions. This may include the regulation of an individual’s emotional expression through seeking social support from others, or engaging in avoidance or distance. Folkman and Lazarus (1985) surmised that emotion-focused coping, such as avoidance and distancing oneself from the problem are used when the stressor is perceived as uncontrollable and therefore, must be accepted.

Folkman and Lazarus (1985) hypothesized that subjects use more problem-focused coping in response to situations they appraised as changeable, and more emotional-focused coping in situations where they saw few, if any, options for affecting the outcome. The coping processes that were dominant in changeable encounters included: confrontive coping, accepting responsibility, planful problem-solving and positive reappraisal. For instance, Folkman and Lazarus (1985) indicated that problem-focused responses were used more during periods of anticipation, when there was intensive preparation for a course examination, rather than during the waiting period after the exam and before grades were announced, when nothing could be done to change the outcome.

Folkman, Lazarus, Dunkel-Schetter, DeLongis and Gruen (1986) indicated that the above-mentioned cognitive theory of stress and coping identifies three processes: 1) cognitive appraisal; 2) coping as critical mediators of a stressful person environment
relationship; and 3) coping process and the immediate and long-term outcomes.

Cognitive appraisal is a process through which a person evaluates whether a particular encounter with the environment is relevant to his or her well-being, and if so, in what ways (Folkman et al. 1986). There are two kinds of cognitive appraisal: primary and secondary. Folkman et al. (1986) found that coping varied depending on what was at stake (primary appraisal) and what the coping options were (secondary appraisal). With primary appraisal, the person evaluates whether he or she has anything at stake in the encounter. When the person evaluates the situation, they would consider the risks and benefits in relation to their own values, commitments and goals. In secondary appraisal, the person evaluates “what if anything can be done to overcome or prevent harm or to improve the prospects for benefits” (Folkman et al. 1986, p.993). For instance, “when people felt their self-esteem was at stake, they used more used confrontive coping, self control, escape-avoidance coping and accepted more responsibility than when self-esteem was not at stake” (Folkman et al. 1986, p. 572). They also found that people used less social-support when a threat to their self-esteem was involved. They suggested that shame or embarrassment may be a factor for those not seeking social support when their self-esteem is at risk. Hence, various coping strategies are evaluated and attempts to alter the situation, seek more information, hold back from acting or take responsibility may occur. Thus, all of these coping options are considered while evaluating values, commitments and beliefs about self and the world. The process results in defining the stakes that a person identifies as having relevance in a specific stressful transaction (Folkman & Lazarus, 1985; Folkman et al. 1986).

Last, the “immediate outcome” of an encounter refers to the person’s judgment of the extent to which the encounter was resolved successfully. Overall judgment is based on the individual’s values and goals, and his or her expectations concerning various aspects of the stressful encounter. For example “even though there has not been a
resolution of the problem causing distress, an outcome can be evaluated favorably if the person feels that the demands of the counter were managed, as well as could be expected” (Folkman et al. 1986, p.993).

In short, Lazarus and Folkman (1984) contend that the cognitive theory of stress and coping has three essential features of the stressful situation: 1) coping is a dynamic process, it focuses on the person’s cognitive process and behaviour to specific stressful encounter which differs from trait approaches; 2) coping is contextual and relies on the person’s appraisal of the demand and the resources for dealing with it; and 3) no prior assumptions about what constitutes good or bad coping exist. Coping is about a person dealing with a demand, regardless if the efforts are successful.

**Adolescent Coping Strategies**

It is fundamental that we identify coping as embedded within a larger context of the different ways individuals respond to stress. Individual differences include one’s capacity for affect regulation, cognitive appraisal and behavioural responses to stress (Folkman et al. 1986; Folkman & Lazarus, 1985, 1988). The research often looks at gender and age rather than developmental theory when examining the coping processes in adolescents.

For instance, Recklitis and Noam (1999) conducted a study with 302 psychiatrically hospitalized adolescent patients between the ages of 12 to 16. Their results may not generalize to the normal population. The researchers sought to understand the association between coping and psychological development. Recklitis and Noam (1999) found that “avoidant coping and negatively-reactive coping strategies were more likely to be associated with a range of behaviour problems, while problem-solving and cooperative strategies were associated with fewer psychological symptoms” i.e. anxiety and depression (p.97). Consistent with Recklitis and Noam (1999), Grant and
Compas (1995) also found that ruminative thoughts were more typical of girls who were under stress which seemed to be associated with inadequate coping and problem-solving and increased depressive symptoms.

In addition, Recklitis and Noam's (1999) research findings suggested “girls used interpersonal and avoidance coping while boys used physically active coping strategies” (p.97). The researchers contend that both ego development and symptoms varied with gender. Gender seemed to mediate the affects which are associated with the coping strategy preference. For instance, social support and friendship support factors suggested girls seek out interpersonal contact, which is seen as “a mature strategy that allows the use of meaningful contact” (p.97).

Furthermore, Recklitis and Noam (1999) found that the developmental nature of coping in adolescence is related to the ways in which adolescents engage and make meaning of themselves and their important relationships. For example, “with increased ego development during the adolescent years, the self becomes tied more to the expectations of friend, families, and peer group and one can expect more interpersonal, reflective, and emotional coping styles rather than the more aggressive style of the ventilation” (p.98).

Lazarus and Folkman (1984) emphasize that there should be no prior assumptions about what constitutes “good” or “bad” coping. Coping is about a person dealing with a demand, whether or not the efforts are successful. In contrast to this approach, Frydenberg and Lewis (2004) conducted a study examining the coping strategies of adolescents who are self-professed weak copers. The aim of the study was to find ways of helping young people gain productive coping skills and minimize the use of nonproductive coping strategies. In total there were 1219 students (52%) male and (48%) female. Frydenberg and Lewis (2004) found that “both productive (relaxation, seek social support, work hard, problem solving) and nonproductive coping strategies
(wishful thinking, worrying) characterized poor copers” (p.33). For, instance those who were least able to cope with dysfunction used the following coping strategies “self-blame, worry, ignore the problem, distancing and wishful-thinking, whereas poor copers tend to relax, work, and seek social support” (p.33).

Frydenberg and Lewis (2004) findings are consistent with those of Folkman and Lazarus (1985): individuals use both types of coping problem-focused and emotional-focused. In more than 98% of the stressful encounters reported by middle-aged men and women (Folkman & Lazarus, 1980), and 96% of college students, both types of coping were used (Folkman & Lazarus, 1985).

Frydenberg and Lewis (2004) suggested improving the coping ability of adolescents by focusing on minimizing the reliance on nonproductive coping responses (wishful thinking and worrying) and concentrating on improving problem-solving strategies (p.33). When adolescents feel that their attempts to use productive strategies are ineffective they may revert to using nonproductive strategies (Frydenberg & Lewis, 2004). The authors recommend that health professionals de-emphasize the use of nonproductive coping strategies such as worry, self-blame, tension, distancing and wishful-thinking and focus on more productive strategies.

The effectiveness of a coping strategy depends on an individual’s perception of the situation and if it is controllable, or uncontrollable. For instance coping strategies that are considered maladaptive like distancing or escape-avoidant coping may be seen an adaptive under situations where the individual perceives the situation as an uncontrollable stressor. Thus, it may be more accurate to say that the above example of distancing and escape-avoidance coping constitutes acceptance as a coping strategy when the situation is appraised to be beyond the individual’s control.

Phelps and Jarvis (1994) non-clinical sample of male and female adolescents showed significant differences in coping patterns. For instance females used social
support for instrumental and emotional reasons, positive reinterpretation and growth, religion, and venting of emotions as coping strategies. In contrast, boys used alcohol-drug disengagement, and humor. The findings suggested that girls use emotional-focused coping and boys tend to use avoidant coping strategies.

Frye and Goodman (2000) suggested that social problem solving is part of the coping process which involves cognitive and behavioural attentiveness in response to daily problems or hassles. They examined social problem-solving and the association between stress and depression. The study was conducted with adolescent girls at risk for developing depressive symptoms. They found that adolescent girls were at greater risk for internalized behaviour problems, such as depression and anxiety, than males. They also found that depression in adolescent girls was at least partially attributed to the onset of social stress.

In short, the literature highlighted the individual differences in the coping process and adjustment to stress (Kobasa, Maddi & Kahn, 1982; Lazarus & Folkman, 1984). Consistent with this trend in the research literature is John Bowlby’s (1969) work attachment or internal working models of attachments which operate as “inner structures” upon which individuals organize their experience and cope with their stress (Mikulincer & Florian, 1995).

**Attachment & Coping**

Bowlby (1969) was the first attachment theorist to propose the theoretical construct of an “internal working model” of self and other as a representation of the attachment relationship between an infant and caregiver. Internal working model of attachment is developed through repeated interactions between an infant and caregiver. As a result, the infants’ awareness of their caregiver’s physical and emotional availability, which results in the infant seeking proximity or contact to achieve felt “security” in their
environment (Bowlby, 1969). Over time the interaction between the infant, caregiver and the environment aids in the development of the infants internal working model and informs the emerging understanding and expectations about themselves in relationship to others. This internal representation of infant-caregiver attachment can predict patterns of interactions in later relationships.

Mikulincer and Florian (1998) contended that “secure attachment is an inner resource that may help a person to positively appraise stressful experiences, to constructively cope with these events, and to improve his or her well-being and adjustment” (p.144). In contrast, insecure attachment can have negative outcomes and is viewed as a potential risk factor leading to poor coping and maladjustment.

Bowlby’s (1969) theory of attachment is based on human development and interpersonal theory. His earlier work primarily sought to understand the differences of the stress reactions of animals and humans to separation and loss. From there evolved a shift towards attachment process in early relationships between an infant and caregiver. He postulated that the infant-caregiver interaction would operate as a “protective mechanism” in situations of threat or danger (Mikulincer & Florian, 1998). Early infant-caregiver attachment serves to provide a sense of well-being and security as a result of maintaining close proximity to the caregiver. In the event that the infant experiences discomfort he or she may seek out the caregiver to help manage their stress, resulting in the desired goals of a secure sense of being. On the other hand, Bowlby’s (1969) attachment theory also identifies insecure attachment as an internal working model. For those who are insecurely attached their internal working models consist of defensive strategies to guide them in coping with stressful situations.

Mikulincer and Florian (1995) elaborated on Bowlby’s theory and suggested that the concept of “security” in an attachment relationship functions as an “inner resource” that may help individuals cope successfully with life events (p.144). As a result, securely
attached individuals are more self-confident, well adjusted and experience positive life transitions (Allen, Moore, Kuperminc, & Bell, et al., 1998). These inner resources operate as a protective mechanism which is fundamental to the infant-caregiver relationship, whereby security in attachment protects the child from further risk or distress. Allen et al. (1998) found that secure attachment was associated with fewer self-reports of internalized behaviour problems, such as depression and anxiety. The protective nature of secure attachment relationship provides an individual with a sense of security and resiliency in their lives, and buffers psychological distress resulting from adversity.

In contrast, working models of insecure attachment are seen as risk factors. Insecure attachment has been characterized as unstable, inadequate regulation of distress by the caregiver and a sense of personal inefficacy in relieving discomfort (Mikulincer & Florian, 1995). Research has shown that insecure attachment is related to anxiety, depression, personality disorders, marital distress and suicidal ideation (Pappini & Roggman, 1992). Insecure attachment can create barriers in the development of inner resources necessary for successful coping and adaptation to life stressors. Mikulincer and Florian (1998) found that individuals who reported insecure attachment also reported using more maladaptive coping strategies.
Links among Anxiety, Coping & Attachment

Attachment theory implies that perceived attachment or internal working models of attachment established in early caregiver relationships will have an effect on an individual’s self-concept, their view of others, their psychological symptoms and coping responses to stress (Kobak & Sceery, 1988; Allen, Porter, McFarland, McElhaney, & Marsh, 2007; Pappini & Roggman, 1992; Merlo & Lakey, 2007; Sieffge-Krenke, 2006; Mukulincer & Florian, 1998). Secure attachments to parents and peers are considered healthy coping resources in the coping process (Compas, 1987; Mukulincer & Florian, 1998; Sieffge-Krenke, 2006). In an earlier study that reported the buffering effects of social support were inconclusive (Cauce, Felner & Primavera, 1982). Nonetheless, in more recent research Pielage, Gerisma and Schaap (2000) studied two models of relationships between stressful encounters, attachment style and psychopathology with adult couples. They concluded that no evidence was found for the mediating role of attachment in relation to stressful events and psychopathology. In other words, “attachment style did not influence the effects of stressful events on mental health symptoms. Rather, the results indicated stressful events mediated the association between fearful attachment and psychopathology” (p.296).

A key element in understanding internal working models of attachment (Bowlby, 1969), stress and coping theory (Folkman & Lazarus, 1988) and psychopathology (Cicchetti & Troth, 1998; Pielage, 2000), is the underlying cognitive function that influences these theories. All of the above-mentioned concepts require cognitive interpretation.

For instance, anxiety interferes with cognitive function through negative thought patterns. These thought patterns seemed to be a predominant feature of some of the debilitating aspects of anxiety. Negative thought patterns in anxious individuals affects their perceptions of themselves, others and situations (Lazarus & Folkman, 1988). As a
result, negative thoughts lead to negative feelings and ultimately result in a reaction to a stressful encounter.

Furthermore attachment is based on cognitive representations of attachment figures and of themselves. There is a cognitive process that is required in developing an internal working model of attachment. Similarly, cognitive processes also play a significant role in anxiety. The cognitive process such as excessive worry and negative thought pattern are markers of anxiety. Thus, attachment, anxiety and coping process are also dependent on the cognitive appraisal of a stressful situation. In Pielage et al. (2000) they found “fearfully attached individuals were more prone to perceive and interpret an event as stressful which in turn seems to increase their vulnerability to experience psychological symptoms (p.297). Consistent with Pielage et al. (2000) attachment research claims individuals with anxious-ambivalent attachment styles have been found to exaggerate the appraisal of hardships as irreversible or uncontrollable and have more interfering thoughts than securely attached individuals (Mikulincer & Florian, 1998). According to Bowlby (1998), cognitive biases affected an individual's response to stress, he stated:

“an individuals cognitive biases are a function of the representational models of attachment figures and of self that he/she has built in during childhood and adolescence… in turn, a function of the experience he has had in his family… cognitive biases or mental representations of the self and attachment figures will influence the way important information is processed and the course of action that one takes to address the stress” (p.233).

As discussed earlier, Folkman and Lazarus (1988) describe this process as a cognitive appraisal of a stressful event.

Howard and Medway (2004) conducted a study with 75 adolescent-parent pairs where they examined how high school students cope with stress as a function of their attachment style. The researchers hypothesized that 1) secure attachment would support the stress coping techniques of family communication and positive avoidance,
and report relatively low stress; 2) there would be a positive relationship between dismissive attachment and coping through anger, positive-avoidance and negative-avoidance given this styles’ negative view of others; 3) there would be a positive relationship between fearful attachment and avoidance coping styles; and 4) adolescents will report higher stress due to negative self and other views (p.393). They found that adolescents who scored higher on attachment security, also scored higher on the use of family communication and lower on negative avoidance strategies, and tended to score higher on the use of positive avoidance (p.398). They indicated “although negative avoidance findings were not specifically hypothesized it is reasonable that more securely attached adolescents would use less negative avoidance strategies such as relying on alcohol to solve their problems”(p.399). Furthermore, adolescents relied on their peers more than their parents for security and support. Howard and Medway (2004) administered the WHO-TO Questionnaire to participants to better understand who served as a key attachment figure to them and provided a secure base and safe haven. Generally adolescents reported that their friends served more of an attachment function than their parents (p.397).

In a recent study, Merlo and Lakey (2007) mentioned that attachment insecurity and maladaptive coping were associated with depression in adolescence. However, they indicated that they were “uncertain if these links reflected stable individual differences amongst teens, (trait influence), or experiential differences within their interactions with peers (social influences), or both” (p.195). The study was comprised of 150 adolescents between the ages of 14 and 18. They completed questionnaires that assessed attachment security, depressive symptoms and coping strategies with different attachment figures. They indicated that the measures were completed three times based on experiences with maternal figure, parental figure and closest peer. Merlo and Lakey’s (2007) findings suggested that “support-seeking and problem-solving were associated
with fewer depressive symptoms only when the social influence components were examined, whereas avoidant-coping was related to depressive symptoms, when correlations reflected both trait and social influence components” (p.203).

In addition, coping mediated the relationships among social influence components of attachment and depressive symptoms, but not the trait components. A similar finding resulted from the research of Wei Heppner and Mallinckrodt (2003), who claimed that perceived coping mediated the relationship between attachment and psychological distress. Furthermore, Merlo and Lakey (2007) explained how “attachment insecurity and depressive symptoms are related, and illuminate mechanisms whereby couples; family and interpersonal therapies would be effective in treating depression” (p.203).

Sieffge-Krenke (2006) suggested adjusted individual differences in mental representations of attachment may also influence the process of stress appraisal and subsequent coping. For instance, insecure or secure internal working models of attachment may determine coping strategy preference when dealing with stress. Attachment organization that are insecure or lack trust may create vulnerabilities to psychopathology (Kobak & Sceery, 1988; Allen et al. 1998).

Sieffge-Krenke (2006) study involved 64 females, aged 14 to 21, who participated in a longitudinal study. The focus of the study was on stress and coping with adolescent relationship stress. Their findings suggested that stress and relationship was dependent on working models of attachment. Preoccupied internal working models of attachment reported stable and high levels of stress with parental relationships, in adolescents between the ages of 14 to 17 (p.35). In contrast, participants with “secure and dismissing internal working models of attachment acknowledged that they had stress with parents but perceived levels of stress as considerably lower” (p.35).
According to Sieffge-Krenke (2006) participants with secure attachment showed significant gains in active coping and support-seeking when dealing with relationship stresses from the ages of 14 to 21. The researchers concluded that young adults with secure internal working models experience higher levels of support from their families and cope more actively with a variety of stressors (Kobak & Screery, 1988).

Summary

Several studies have shown significant findings that supported the links between degree of stress in one's life and the connection that it has to psychopathology (Kobak & Screery, 1988; Sieffge-Krenke, 2006; Allen et al 1998; Grant, Compas, Stuhlmacher, Thurm, McMahon, & Halpert, 2003). The way in which adolescents deal with these stressors will impact current and future psychosocial functioning. Several studies have shown that the use of maladaptive coping strategies, such as escape-avoidance, results in increased psychopathology, both concurrently and several years later (Sieffge-Krenke, 2006; Merlo & Lakey, 2007).

Howard and Medway (2004) went beyond the existing research by examining the role of attachment in predicting how attachment style and coping are related and generally found results supportive of attachment theory. They concluded that “securely attached adolescents’ stress appeared to trigger increases in family communication and decreases in negative avoidance coping” (p.399). Furthermore, insecurely attached individuals tended to avoid positive coping strategies, possibly because they lack trust in others. Adolescents in this study counted on their friends for help more than their parents reported.

Understanding the coping process among adolescents with anxiety, and the buffering affects of attachment, appeared both theoretically and practically significant. Several studies found that the preference for adaptive and maladaptive coping
responses in adolescents was influenced by the internal working models of attachment (Seiffge-Krenke, 2006; Merlo & Lakey, 2007; Howard & Medway, 2004; Mikulincer & Florian 1998). For example, the data suggested that insecure adolescents were more likely to engage in behaviours that were not helpful in reducing stress and therefore may need, in particular, encouragement to participate in school-based programs.

Despite all of the research conducted within this area of psychology, a paucity of research has examined the differences in coping processes amongst trait-anxious and non-anxious adolescents. What research exists tends to focus on coping strategies as buffering the effects of stress and psychopathology. Furthermore, depression seems to be a construct that is closely examined in the research instead of anxiety. Thus far, no studies have sought to examine how trait-anxious adolescent girls cope, nor have they explored the buffering effects of attachment to parents and peers. Therefore, the purpose of this study is to better understand the buffering effects of perceived attachment in trait-anxious adolescent girls. In order for treatment interventions and support programs to assist trait-anxious we need to examine the following research questions.

**Research Questions**

1. What is the association between mother-attachment, personal resources (peer-attachment, extracurricular activities, social and academic competence) and coping strategies in trait-anxious and non-anxious adolescent girls?
2. What coping strategies do trait-anxious and non-anxious adolescent girls use?
3. Do both mother-attachment and personal resourcefulness function as protective factors for healthy coping and psychological health?
Hypotheses

Mother-attachment (as measured by IPPA) and personal resourcefulness (as measured by IPPA-R and YSR-ASEBA) are hypothesized to be protective factors for healthy coping (as measured by WAYS-R) and psychological health (as measured by STAI-T).

**Hypothesis 1:** Trait-Anxious adolescent girls who report Secure Mother-Attachment will have higher scores than those who are insecurely attached on Seeking Social Support Coping, one of eight subscales measured by the Ways of Coping Questionnaire (WAYS-revised; Folkman & Lazarus, 1988).

**Hypothesis 2:** Trait-Anxious adolescent girls who report Insecure Mother-Attachment (relative to those that are securely attached) will have higher scores on the a) Distancing, b) Self-Controlling and c) Escape-Avoidance Coping subscales.

**Hypothesis 3:** For Trait-Anxious adolescent girls high scores on Personal Resources, regardless of mother-attachment, will be related to higher scores on a) Accepting Responsibility, b) Planful Problem-Solving, c) Seeking Social Support, and/or d) Positive Reappraisal, four of eight subscales measuring emotion-focused and problem-focused coping (WAYS-R).
Chapter II
Methods

The Methods Chapter is divided into four subsections. The first section outlines descriptive characteristics of the participant. In the second section, measurement instruments are described. The third section outlines the procedures used to collect data. Last, the statistical analysis of the data is described.

PARTICIPANTS

The participants included a total of 246 Canadian adolescent females from two Catholic high schools. The non-random sample was selected from two schools (n=276) from the ninth, 10th, and 11th grade. The adolescent girls came from varied ethnic backgrounds and were between the ages of 14 and 16 years-old (M=15.1 years). Participation in the study was extended to all 9th, 10th, and 11th grade girls. Those who were excluded from the study (n=30) included girls who returned incomplete parent consent forms (n=6), were absent from school on data collection day (n=11) or returned incomplete surveys (n=13).

MEASURES

Participants were asked to complete a packet of questionnaires which were comprised of five measures selected based on the variables of interest:

Demographics. A Youth Profile Questionnaire (YPQ) was developed to obtain demographic information from the participants such as, age, grades, race/ethnicity, parent’s marital status, living arrangements and two open-ended questions.

Mother and Peer-Attachment. Participants completed the Inventory of Parent and Peer-Attachment-IPPA-R (Armsden & Greenberg, 1987) a self-report measure with
a five-point Likert-scale response format. It was developed to assess adolescent perceptions across three broad dimensions: current degree of mutual Trust, quality of Communication, and the extent of Alienation in their relationship with their mother, father and peers, and more specifically, how well these figures serve as a source of psychological security. This measure was based on the theoretical framework in attachment theory, originally formulated by John Bowlby. The revised version IPPA-R (Armsden & Greenberg, 1987) is comprised of 25 items in each of the following three sections i) Mother-Attachment; ii) father attachment and iii) Peer-Attachment, yielding a score of attachment.

Higher scores on the Communication Scale and Trust Scale (IPPA-R) demonstrate a secure attachment pattern. Higher scores on the Alienation Scale (IPPA-R) demonstrate an internal working model of an insecure attachment pattern based on how they perceive their relationship with a significant caregiver (mother, father or other significant caregiver of choice) and peer.

Overall, the Mother-Attachment scale (IPPA-R) is the primary scale used to determine attachment in this study. Higher scores on Mother-Attachment (IPPA-R) demonstrate a secure attachment pattern. The highest possible raw score on the IPPA-R is 125 and 25 is the lowest score. For categorical analyses scores that ranged from 85 to 125 indicated high secure Mother-Attachment; scores that ranged from 60 to 84 indicated a moderately secure Mother-Attachment; and low scores that ranged from 59 to 25 indicated insecure Mother-Attachment.

**Trait-Anxiety.** The State-Trait-Anxiety Inventory (STAI; Spielberger, 1983) was used to measure State-Anxiety (S-Anxiety) and Trait-Anxiety (T-Anxiety). This measure is comprised of two separate self-report scales measuring state-anxiety and trait-anxiety. The S-Anxiety scale (STAI Form Y-1) has 20 statements that measure how the participant feels “right now” at this moment. The T-Anxiety scale (STAI Form Y-2)
consists of 20 statements that evaluate how the participant feels “generally.” According to Spielberger (1983) State-Anxiety is characterized by subjective feelings of tension, apprehension, nervousness and worry. In contrast, Trait-Anxiety refers to stable individual differences. The Trait-Anxiety scale is a screening device for evaluating more immediate and long-term outcomes. This instrument is validated for use with a 6th grade level and takes approximately 10 minutes to complete.

There is a combined total of 40 items on the STAI. Each item is given a weighted score of 1 to 4 (4-point Likert scale). A rating of 4 indicates the presence of a high level of anxiety for (10) State-Anxiety items and (11) Trait-Anxiety items. A high rating indicates the absence of anxiety for the remaining (10) State-Anxiety items and (9) Trait-Anxiety items. A high score on Trait-Anxiety scale will make up the trait-anxious group of girls. For the purposes of this study, the general tendency (trait) to feel anxious was of interest rather than the person’s level of anxiety at the time of the assessment (state). Therefore, the “Trait-Anxious” scale was used only; the “State-Anxious” scale was not included in this study. On the Trait-Anxious scale, raw scores ranged from 20 (not at all or ever Trait-Anxious) to 80 (very much or always Trait-Anxious). Given that there are no clinical cut-offs available for the STAI, the following scores categorized “Trait-Anxious” girls scores >46 versus scores <45 indicated “Non-Anxious” adolescent girls.

**Personal Resources.** The Youth Self-Report is (YSR; Achenbach & Rescorla, 2001) is a well validated and normed measure of problematic behaviours in youth from ages 11-18. The Youth Self-Report consists of 112 items taken from the Child Behaviour Checklist (CBCL; Achenbach & Rescorla, 2001) and re-worded in the first person. The YSR was designed to empirically measure behavioural problems and social competencies as reported by the youth. The Likert scale ranges from not true (0), somewhat or sometimes true (1) to very true or often true (2).
The YSR consists of Problem Scales: Anxious/Depressed, Withdrawn/Depressed, Somatic, Social, Aggressive, Attention and Rule-Breaking problems. Competence Scales include personal resources such as Extracurricular Activities, Social, and Academic competence.

The Anxious/Depressed problem scale was compared to the State-Trait Anxiety Inventory (Trait scale) to cross validate the trait-anxiety scores measured by the STAI-T. On the YSR Anxious/Depressed problem scale the clinical range were t-scores >65 (indicating Anxious/Depressed); and normal ranged from t-scores <64 (non-Anxious/Depressed).

Competence Scales were used in this study to better understand how personal resources serve as protective factors. The personal resources derived from the YSR include Extracurricular Activities, Social, and Academic competence. T-scores on the competence scale range from >40=normal, 39 to 37=borderline and 36 to 0=clinical.

Another personal resource variable used was Peer-Attachment as measured by the IPPA-R which indicated a secure or insecure Peer-Attachment. Overall, higher scores on Peer-Attachment (IPPA-R) will demonstrate a secure attachment pattern. The highest possible raw score on the IPPA-R is 125, while 25 indicates the lowest possible raw score. Scores that range from 85 to 125 indicate high secure Peer-Attachment; scores that range from 60 to 84 indicate a moderately secure Peer-Attachment and low scores ranging from 59 to 25 indicate insecure Peer-Attachment.

**Coping Strategies.** The coping measure considered the standard in the field is the Ways of Coping Questionnaire revised (WAYS-R) self-report instrument (Folkman & Lazarus, 1988). The response format is a 4-point Likert scale ranging from 0 (“does not apply; not used”) to 3 (“used a great deal”). The factor analysis of the revised questionnaire yielded eight subscales, including one problem-focused coping scale, six emotion-focused coping scales and one mixed coping strategy scale.
The **problem-focused scale**: Confrontive Coping describes aggressive efforts to alter the situation and suggests some degree of hostility and risk-taking. Planful Problem-Solving: describes deliberate problem-focused efforts to alter the situation, coupled with an analytic approach to solving the problem.

The six **emotion-focused coping scales** include: Distancing subscale, which describes cognitive efforts to detach oneself and to minimize the significance of the situation. Self-Controlling subscale describes efforts to regulate one's feelings and actions. Seeking Social Support subscale describes efforts to seek informational support, tangible support, and emotional support. Accepting Responsibility subscale, acknowledges one's own role in the problem with a concomitant theme of trying to put things right. Escape-Avoidance subscale describes wishful thinking and behavioural efforts to escape or avoid the problem. Items on this scale contrast with those on the Distancing subscale, which suggest detachment. Positive Reappraisal subscale describes efforts to create positive meaning by focusing on personal growth. It also has a religious dimension. The remaining subscale was Seeking Social Support, referring to either problem-focused (e.g., information seeking, tangible assistance) or emotion-focused (e.g., sympathy) interactions with others.
PROCEDURE

Human Subjects/Ethics Review Board (HSRB) approval was required by two institutions 1) Antioch University Seattle; and the 2) Catholic Archdiocese Independent School Board. Once HSRB approval was obtained, school administrators provided final approval to conduct this research at their school with their students. First, the researcher met with the school administrators and discussed the purpose and procedures of the study. The school administrators provided final approval to conduct the study, then:

1. The school administrator posted an announcement regarding the study on their school website for students and parents to read. The posted announcement informed the parents about the study and that the researcher will be presenting the study to the students during regular class time and that parental consent was required for participation in the study.

2. The researcher presented the study to potential student participants during class time outlining the purpose, procedures and the limits to confidentiality.

3. During the class presentation of the study, potential student participants were given a consent form which provided further information about the risks and benefits of the study. Potential participants who were interested were instructed to give the consent form to their parents.

4. Students who were given parental consent and had agreed to participate in the study they were asked to return the consent forms to the researcher on the data collection day.

5. In the consent form a $5.00 gift card was given as an expression of appreciation for participating in the study. A copy of the consent form can be found in Appendix D.

Following the informed consent process, students returned their parent consent forms and were given a separate numbered measurement questionnaire packet. To ensure anonymity, numbers were assigned instead of names to each of the
questionnaire packets and consent forms. Each student received a numbered packet that corresponded with their numbered consent forms. A total of five measurement instruments were administered by the researcher in person to the adolescent girls at their high school. The student questionnaire packet contained the following measures: a) demographic measure to assess age, gender, ethnicity, marital status, student grades and open-ended questions, b) a measure of attachment, c) a measure of anxiety, d) measure of coping; and e) a measure of internalized/externalized problems and social/academic competence.

**Data Analysis**

The research design was a survey design which sought to understand the coping strategies of trait-anxious and non-anxious adolescent girls. In addition, protective factors such as mother-attachment, peer-attachment, social and academic competence were hypothesized as mediating the relationship between anxiety and coping. Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 16.0 software.

There were two levels of the single independent variable or predictor variable, trait-anxiety, namely trait-anxious and non-trait-anxious as measured by the (STAI-T). There were eight dependent variables or outcome variables (coping strategies). All eight of these were measured by the Ways of Coping-Revised: 1) confrontive coping, 2) distancing, 3) self-controlling, 4) seeking social support, 5) accepting responsibility, 6) escape-avoidance, 7) planful problem-solving; and 8) positive reappraisal.
ANOVA. In each of the data sets, the between-subjects factor was Trait-Anxiety Group (Trait-Anxious or Non-Anxious). Data from the State-Trait-Anxiety Inventory (STAI-T), Parent-Peer-Attachment Inventory revised (IPPA), Ways of Coping Revised (Ways) and the Youth Self-Report (YSR) were analyzed using an ANOVA. Significant main effects were further explored in post-hoc analyses.

Correlation. Pearson correlations were performed for each of the study variables in order to understand the relationships among the independent or predictor (Trait-Anxiety), dependent or outcome (Coping Strategies) and mediating variables (Mother-Peer-Attachment, Extracurricular Activities, Social and Academic Competence).

Mediation. Mediation analyses were conducted using Baron and Kenny’s (1986) mediation model to test the three research hypotheses (summarized in Figures 1 and 2).

![Mediation Diagram](https://www.davidkenny.net/cm/mediate.htm)

Figure 1. Mediation Diagram: Predictor Variable vs. Outcome Variable-Variable X is assumed to affect variable Y. Variable X is the predictor variable (independent variable) and the variable that it causes is the Y variable or outcome variable. Path c is called the direct or total effect (www.davidkenny.net/cm/mediate.htm)
Figure 3. Mediation Diagram: Predictor, Mediator and Outcome Variables—the effect of X on Y may be mediated by a mediator or intervening variable. Complete mediation is the case in which variable X no longer affects Y after M has been controlled and so path c' is zero (www.davidkenny.net/cm/mediate.htm).

According to Baron and Kenny (1986), four conditions must be met for mediation to occur:

**Step 1**: Show that the predictor variable (X) is significantly associated with the outcome or criterion variable (Y) by testing path c using regression analysis. This step establishes that there is an effect that may be mediated.

**Step 2**: Show that the predictor variable (X) is significantly associated with the mediator (M) by testing path a using regression analysis. This step essentially involves treating the mediator as if it were an outcome or criterion variable.

**Step 3**: Show that the mediator (M) affects the outcome variable (Y). Use Y as the outcome variable in a simple regression equation and X and M as predictors by testing path b. It is not sufficient just to correlate the mediator with the outcome; the mediator and the outcome may be correlated because they are both caused by the predictor variable X. Thus, the initial variable must be controlled in establishing the effect of the mediator on the outcome.

**Step 4**: To establish that M completely mediates the X-Y relationship, the effect of X on Y controlling for M (path c') should no longer have a statistically significant relationship (complete mediation).
To determine the significance of the indirect effect of the independent variable on the dependent variable via the mediator indicated by a significantly lower correlation, the Sobel-t test (significance testing) was performed using web-based statistical tool of Preacher and Leonardelli (2005). If all four of these steps are met, then the data are consistent with the hypothesis that variable M completely mediates the X-Y relationship, and if the first three steps are met but Step 4 is not, then partial mediation is indicated.
Chapter III

Results

Demographic Variables

Parental consent was provided for 276 adolescent girls to participate in the study. Thirty girls were excluded from the study due to: incomplete parent consent forms (n=6), absent from school on data collection day (n=11), and incomplete surveys (n=13). The demographic information that was gathered consisted of age, race/ethnicity, GPA, living arrangements, and parent’s marital status. Demographic information is provided in the following section to describe the participants.

Data were collected from 246 adolescent girls attending two Canadian Catholic high schools (Table 1). The sample consisted of middle adolescents, ages 14 to 16 years old (\(M=15.1\)) from the 9\(^{th}\) (35%), 10\(^{th}\) (35%) and 11\(^{th}\) (30%) grades. As presented in Table 1, race/ethnicity in this sample included girls endorsing 37% Caucasian (n=91), 1.2% White/Non Hispanic (n=3), 0.4% African (n=1), 2% Hispanic (n=5), 35% Asian/Pacific Islander (n=87), 10.2% Filipino (n=25), 9.8% were Mixed race (n=24), Aboriginal (0) and 4.1% categorized as Other (n=10).

Living arrangement (Table 1): 70% of the girls in this study lived with both their Natural Mother and Father (n=172), 6.9% live with their Mother only (n=17), 2.4% live with their Father only (n=6), 0.4% lives with Mother and Stepmother (n=1), zero live with their Father and Stepmother, 14.7% live with their Mother, Father plus Extended family (n=36), 2.8% live with Mother plus (n=7), 0.4% lives with Father plus (n=1), 1.2% live with Other (father/stepmother plus) (n=3), and 0.8% live with Other (mother/stepfather plus) (n=2).
Participants also reported their parent’s marital status. As presented in Table 1, majority (85%) of their parents were Married (n=209), 15 were divorced (6%), 18 were Separated (7.3%) and four were Widowed (1.6%).

Table 1.

<table>
<thead>
<tr>
<th>Description of Study Participants by Anxiety Group</th>
<th>Total (N=246)</th>
<th>Trait-Anxious (n=107)</th>
<th>Non-Anxious (n=138)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
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</tr>
<tr>
<td>Mean</td>
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<td>15.2</td>
<td>15.1</td>
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<tr>
<td>Range</td>
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<td>3</td>
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<tr>
<td><strong>Race, n (%)</strong></td>
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<td></td>
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<tr>
<td>White</td>
<td>91 (37.0)</td>
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<td>57 (41.3)</td>
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<td>White Non-Hispanic</td>
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<td>2 (1.4)</td>
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<tr>
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<td>1 (0.7)</td>
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<td>Hispanic</td>
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<td>1 (0.9)</td>
<td>4 (2.9)</td>
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<tr>
<td>Asian/Pacific Islander</td>
<td>87 (35.4)</td>
<td>44 (41.1)</td>
<td>43 (31.2)</td>
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<td>Aboriginal</td>
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<td>0 (0)</td>
<td>0 (0)</td>
</tr>
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<td>Filipino</td>
<td>25 (10.2)</td>
<td>14 (13.1)</td>
<td>11 (8.0)</td>
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<td>Mixed</td>
<td>24 (9.8)</td>
<td>10 (9.3)</td>
<td>14 (10.1)</td>
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<td>Other</td>
<td>10 (4.1)</td>
<td>4 (3.7)</td>
<td>6 (4.3)</td>
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<tr>
<td><strong>Lives With, n (%)</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Natural mother &amp; father</td>
<td>172 (70.2)</td>
<td>74 (69.8)</td>
<td>97 (70.3)</td>
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<td>Mother only</td>
<td>17 (6.9)</td>
<td>10 (9.4)</td>
<td>7 (5.1)</td>
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<td>Father only</td>
<td>6 (2.4)</td>
<td>1 (0.9)</td>
<td>5 (3.6)</td>
</tr>
<tr>
<td>Mother &amp; Step-father</td>
<td>1 (0.4)</td>
<td>14 (13.2)</td>
<td>1 (0.7)</td>
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<tr>
<td>Father &amp; Step-mother</td>
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<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Mother &amp; Father plus</td>
<td>36 (14.7)</td>
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<td>22 (15.9)</td>
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<tr>
<td>Mother plus</td>
<td>7 (2.9)</td>
<td>3 (2.8)</td>
<td>4 (2.9)</td>
</tr>
<tr>
<td>Father plus</td>
<td>1 (0.4)</td>
<td>1 (0.9)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Other (father/stepmother + other)</td>
<td>3 (1.2)</td>
<td>1 (0.9)</td>
<td>2 (1.4)</td>
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<tr>
<td>Other (mother/stepfather + other)</td>
<td>2 (0.8)</td>
<td>2 (1.9)</td>
<td>0 (0)</td>
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<tr>
<td><strong>Parental Marital Status, n (%)</strong></td>
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<tr>
<td>Married</td>
<td>209 (85.0)</td>
<td>89 (83.2)</td>
<td>119 (86.2)</td>
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<td>Divorced</td>
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<tr>
<td>Separated</td>
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<td>6 (4.3)</td>
</tr>
<tr>
<td>Widowed</td>
<td>4 (1.6)</td>
<td>0 (0)</td>
<td>4 (2.9)</td>
</tr>
</tbody>
</table>
ANOVA

Coping Process

Analysis of variance (Table 2), revealed a significant main effect for Trait-Anxiety group on the following coping measures: Emotion-Focused Coping ($F_{(1, 243)} = 14.17$, $p<.001$); Confrontive Coping ($F_{(1, 243)} = 5.94$, $p<.05$); Self-Control ($F_{(1, 243)} = 12.81$, $p<.001$); Accepting Responsibility ($F_{(1, 242)} = 22.10$, $p<.001$) and Escape-Avoidance Coping ($F_{(1, 242)} = 42.39$, $p<.001$). Post-hoc analyses indicated that Trait-Anxious girls were significantly more likely to use the following coping strategies compared to Non-Anxious girls: Emotion-Focused Coping ($p<.001$), Confrontive Coping ($p<.05$), Self-Controlling ($p<.001$), Accepting Responsibility ($p<.001$), and Escape-Avoidance Coping ($p<.001$). No significant main effects occurred for Trait-Anxiety Group on Problem-Focused Coping, Distancing, Seeking Social Support, Planful Problem-Solving, or Positive Reappraisal.

Mediating Variables

ANOVA (Table 2) shows a significant main effect of the Trait-Anxiety group on the following mediating variables: Mother-Attachment ($F_{(1, 242)} = 35.60$, $p<.001$), Peer-Attachment ($F_{(1, 242)} = 22.96$, $p<.001$) and Academic Competence ($F_{(1, 242)} = 6.12$, $p<.05$). Social Competence and Extracurricular Activities did not reach a $p<.05$ level of significance. Post hoc analyses indicated that Trait-Anxious girls had significantly less reported attachment to both their mothers and their peers ($p<.001$). Trait-Anxious girls also had significantly lower Academic competence than Non-Anxious ($p<.05$).
### Table 3. ANOVA

**Effect of Trait-Anxiety on Coping Process and Mediating Variables**

<table>
<thead>
<tr>
<th>Outcome Variables</th>
<th>F</th>
<th>Df</th>
<th>Error</th>
<th>p</th>
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</thead>
<tbody>
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<td><strong>Coping Process</strong></td>
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<tr>
<td>Confrontive</td>
<td>5.94</td>
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<tr>
<td>Distancing</td>
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<td>Self-Controlling</td>
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<tr>
<td>Seek Social-Support</td>
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<tr>
<td>Accept Responsibility</td>
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<td>1</td>
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<td>Escape-Avoidance</td>
<td>42.39</td>
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<td>0.00</td>
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<td>Planful Problem-Solving</td>
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<td>0.30</td>
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<td>Positive Reappraisal</td>
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<td>0.17</td>
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<td>Emotion-Focused</td>
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<td><strong>Mediating Variables</strong></td>
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<td>Mother-Attachment</td>
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<tr>
<td>Academic Competence</td>
<td>6.12</td>
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<td>242</td>
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</tbody>
</table>

### CORRELATIONS

**Trait-Anxiety vs. Coping Process and Mediators**

Table 3 presents all the Pearson correlations for each study variable. Trait-Anxiety standard score was positively correlated to three coping strategies: Self-Controlling, Escape-Avoidance coping, and Accepting Responsibility ($r=0.21$ to $0.41$, $p<0.01$ to .001). Trait-Anxiety standard score was also negatively correlated to all mediating variables: Mother-Attachment ($r=-0.38$, $p<0.001$), Peer-Attachment ($r=-0.39$, $p<0.001$), Academic Competence ($r=-0.13$, $p<0.05$) and Social Competence ($r=-0.20$, $p<0.01$).
Coping vs. Coping

Among the coping strategies, Confrontive and Self-Controlling coping were each positively correlated to all seven other coping strategies ($r=0.18$ to $0.44$, $p<.01$ to .001). Distancing was positively correlated to all coping strategies ($r=0.27$ to $0.55$, $p<.01$ to .001).

Mediators vs. Coping

Personal resources also demonstrated some significant associations with coping. Mother-Attachment was negatively correlated to Self-Controlling (regulating feelings and actions), Accepting Responsibility (trying to make things right) and Escape-Avoidance (wishful thinking or escaping from the problem) coping ($r=-0.20$ to $-0.32$, $p<.01$ to .001). Similar to Mother-Attachment, Peer-Attachment was also negatively correlated to Escape-Avoidance coping ($r=-0.24$, $p<.001$). However, Peer-Attachment, but not Mother-Attachment, was also positively related to Seeking Social Support (seeks information, tangible support and/or emotional support) coping ($r=0.22$, $p<.01$). The Social Competence score was not significantly associated to any coping processes considered in this study. Academic Competence (GPA) was negatively related to Confrontive (aggressive coping efforts or risk-taking), Accepting Responsibility (identifies their role in the problem and tries to make things right) and Escape-Avoidance (wishful thinking or escaping from the problem) coping ($r=-0.13$ to $-0.16$, $p<.05$ to .01).

Mediators vs. Mediators

Within the personal resources and attachment, Mother-Attachment was significantly related to Peer-Attachment, Academic Competence and Social Competence ($r=0.13$ to $0.17$, $p<.01$ to .001), but not Extracurricular activities. Beyond Mother-Attachment, Peer-attachment was positively related to Social Competence ($r=0.20$, $p<.01$). Academic Competence was also significantly related to Social Competence ($r=0.21$, $p<.01$).
<table>
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<tr>
<th>Subscales</th>
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<td>.55***</td>
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<td>.21**</td>
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<td>12. Extracurricular Activities</td>
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<td>.00</td>
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<td>14. Academic Competence</td>
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<td>-.15</td>
<td>-.12</td>
<td>-.06</td>
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<td>.00</td>
<td>.17**</td>
<td>.11</td>
<td>.06</td>
<td>.21**</td>
</tr>
</tbody>
</table>

**Table 3. Correlations among Study Variables**

NOTE: N=246. Table shows Pearson's correlations.
* p<0.05, ** p<0.01, *** p<0.001.
MEDIATION ANALYSIS

As described in the analytic strategy, a mediation analysis was used to test the three research hypotheses. Before mediation analyses can be attempted, a certain pattern of relationships must exist. The potential mediating role of mother-attachment and personal resources in the association between Trait-Anxiety (predictor variable) and coping process (outcome variable) was examined according to Baron and Kenny (1986). First, the predictor (independent) is regressed against the outcome variable (dependent) (Step 1), and the predictor is regressed against the mediator (Step 2). Both should be significant. In a linear regression analysis using both the predictor and mediator together in the prediction of the outcome variable the mediator should be a significant predictor (Step 3). The predictor (Step 4) should no longer be significantly (total mediation) or significantly lower with the outcome variable as compared to (Step 1) (partial mediation). To determine whether the correlation in Step 4 is significantly lower, the Sobel-t test was performed (Preacher & Leonardelli, 2005).

Hypothesis 1: The Mediating Role of Mother-Attachment on the Relationship between Trait-Anxiety and Seeking Social Support Coping

Trait-Anxiety was not significantly associated to the outcome variable Seeking Social Support Coping ($\beta = .06, p > .05$) (Step 1, Path c, Figure 3). Therefore, this hypothesis did not meet the preconditions for mediation.
Figure 3.
Hypothesis 1: Trait-Anxious adolescent girls who report Secure Parental Attachment will have higher scores than those who are insecurely attached on Seeking Social Support Coping. Data are reported as Standardized Beta (β) scores.

Hypothesis 2a: The Mediating Role of Mother-Attachment on the Relationship between Trait-Anxiety and Distancing Coping

Trait-Anxiety was not significantly associated to the outcome variable Distancing Coping (β=-.02, p>.05) (Step 1, Path c, Figure 4). Therefore, this hypothesis did not meet the preconditions for mediation.

Figure 4.
Hypothesis 2a: Mediating Role of Mother-Attachment on the Relationship between Trait-Anxiety and Distancing Coping. Data are reported as Standardized Beta (β) scores.
Hypothesis 2b: The Mediating Role of Mother-Attachment on the Relationship between Trait-Anxiety and Self-Control Coping

As can be seen in Figure 5, Mother-Attachment partially mediated the relationship between Trait-Anxiety and Self-Controlling Coping. This model depicted the mediating role of Mother-Attachment on the relationship between Trait-Anxiety and Self-Controlling Coping. The estimate for the indirect effect was $z=2.77$, $p<.01$ (Table 4), which suggested that the association between Trait-Anxiety and Self-Control Coping was mediated by Mother-Attachment. Trait-Anxiety was significantly associated with Self-Controlling Coping ($\beta=.21$, $p<.001$) (Step 1) and Mother-Attachment (Step 2). Mother-Attachment was also significantly related to Self-Controlling Coping ($\beta=-.21$, $p<.05$) (Step 3). Controlling for Mother-Attachment reduced the standardized beta ($\beta$) score from 0.21 (Path c) to 0.16 (Path c’). However, the beta ($\beta$) score for Path c’ remained statistically significant ($p<.05$) indicating partial mediation.

Figure 5.  
Hypothesis 2b: Mediating Role of Mother-Attachment on the Relationship between Trait-Anxiety and Self Control Coping. Data are reported as Standardized Beta ($\beta$) scores, **$p<.01$, ***$p<.001$.  

\[ \text{Trait-Anxiety} \xrightarrow{-0.38^{**}} \text{Mother-Attachment} \xrightarrow{-0.20^{*}} \text{Self Control Coping} \]

\[ \text{0.21^{***}} \]
Table 4.

**Hypothesis 2:** Mother-Attachment as Mediator of the Association between Trait-Anxiety and Self-Control & Escape-Avoidance Coping

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>R²</th>
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<th>Sobel (z)</th>
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<td>Self-Control Coping</td>
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<td></td>
<td></td>
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<tr>
<td>Step 1</td>
<td>Trait-Anxiety → Self-Controlling</td>
<td>0.04</td>
<td>0.21**</td>
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</tr>
<tr>
<td>Step 2</td>
<td>Trait-Anxiety → Mother-Attachment</td>
<td>0.14</td>
<td>-0.38***</td>
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<tr>
<td>Step 3</td>
<td>Mother-Attachment → Self-Controlling coping</td>
<td>0.04</td>
<td>-0.20**</td>
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<tr>
<td>Step 4</td>
<td>Trait-Anxiety, Mother-Attachment → Self-Controlling</td>
<td>0.06</td>
<td>0.16*</td>
<td>2.77**</td>
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<td></td>
<td>Escape-Avoidance Coping</td>
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<tr>
<td>Step 1</td>
<td>Trait-Anxiety → Escape-Avoidance</td>
<td>0.17</td>
<td>0.41***</td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td>Trait-Anxiety → Mother-Attachment</td>
<td>0.14</td>
<td>-0.38***</td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td>Mother-Attachment → Escape-Avoidance</td>
<td>0.11</td>
<td>-0.32***</td>
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<tr>
<td>Step 4</td>
<td>Trait-Anxiety, Mother-Attachment → Escape-Avoidance</td>
<td>0.14</td>
<td>-0.38***</td>
<td>4.09***</td>
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</table>

**p<.01, ***p<.001

**Hypothesis 2c:** The Mediating Role of Mother-Attachment on the Relationship between Trait-Anxiety and Escape-Avoidance Coping

As can be seen in Figure 6, Mother-Attachment partially mediated the relationship between Trait-Anxiety and Escape-Avoidance coping. The first model depicted the mediating role of Mother-Attachment on the relationship between Trait-Anxiety and Escape-Avoidance Coping. The estimate for the indirect effect was z=4.09, p<.001 (Table 5), which suggested that the association between Trait-Anxiety and Escape-Avoidance Coping was mediated by Mother-Attachment. Controlling for Mother-
Attachment reduced the standardized beta (β) score from 0.41 (Path c) to 0.34 (Path c'). However the beta (β) score for Path c' remained statistically significant (p<.05) indicating partial mediation.

![Diagram](attachment:figure_6.png)

**Figure 6.**
*Hypothesis 2c: Mediating Role of Mother-Attachment on the Relationship between Trait-Anxiety and Escape-Avoidance Coping. Data are reported as Standardized Beta (β) scores, **p<.01, ***p<.001.*

**Hypothesis 3: Mediating Role of Personal Resources on the Relationship between a) Accepting Responsibility, b) Planful Problem-Solving, c) Seeking Social Support, and/or d) Positive Reappraisal*

There was a significant association between Anxiety and a) Accepting Responsibility Coping (β=.25, p<.05), but not b) Planful Problem-Solving (β =-.08, p>.05), c) Seeking Social Support (β=.06, p>.05), or d) Positive Reappraisal (β=.02, p>.05), (Step 1, Path c). Further analyses were conducted to explore the possibility of a mediation role of personal resources on the relationship between Trait-Anxiety and Accepting Responsibility Coping.
Hypothesis 3a: Mediating Role of Peer-Attachment on the Relationship between Trait-Anxiety and Accepting Responsibility Coping

As can be seen in Figure 7, Peer-Attachment did not mediate the relationship between Trait-Anxiety and Accepting Responsibility Coping. Although Trait-Anxiety was significantly associated with Peer-Attachment (Step 1, $\beta=-.38$, $p<.001$), Peer-Attachment was not significantly associated with Accepting Responsibility Coping (Step 2).

![Diagram showing the relationship between Trait-Anxiety, Peer-Attachment, and Accepting Responsibility Coping](image)

Figure 7. Hypothesis 3a: Mediating Role of Peer-Attachment on the Relationship between Trait-Anxiety and Accepting Responsibility Coping. Data are reported as Standardized Beta ($\beta$) scores, ***$p<.001$, ns=not significant ($p>.05$).

Hypothesis 3b: Mediating Role of Academic Competence on the Relationship between Trait-Anxiety and Accepting Responsibility Coping

As can be seen in Figure 8, Academic Competence partially mediated the relationship between Trait-Anxiety and Accepting Responsibility Coping. Trait-Anxiety and Accepting Responsibility Coping were significantly related ($\beta=.25$, $p<.001$, Step 1). Trait-Anxiety was significantly associated with Academic Competence ($\beta=.13$, $p<.05$) (Step 2) and Academic Competence was significantly associated with Accepting
Responsibility Coping (Step 3). Controlling for Academic Competence (Step 4) reduced β from .25 (Path c) to (Path c') to β=.23, however this relationship was still statistically significant (p<.001), indicating partial mediation.

![Diagram](https://via.placeholder.com/150)

**Figure 8.**
**Hypothesis 3b: Mediating Role of Academic Competence on the Relationship between Trait-Anxiety and Accepting Responsibility Coping.** Data are reported as Standardized Beta (β) scores, *p<.05, ***p<.001.

**Hypothesis 3c: Mediating Role of Social Competence on the Relationship between Trait-Anxiety and Accepting Responsibility Coping**

As can be seen in Figure 9, Social Competence did not mediate the relationship between Trait-Anxiety and Accepting Responsibility Coping. As before, Trait-Anxiety was significantly associated to Accepting Responsibility Coping (β=.25, p<.001) (Step 1). Further, Trait-Anxiety was significantly associated to Social Competence (β=-.20, p<.01) (Step 2). However, the relationship between Social Competence and Accepting Responsibility Coping (Step 3), failed to reach significance, indicating no mediation in this model.
Figure 9. Hypothesis 3c: Mediating Role of Social Competence on the Relationship between Trait-Anxiety and Accepting Responsibility Coping. Data are reported as Standardized Beta (β) scores, **p<.01, ***p<.001, ns=not significant (p>.05).
**Table 5.**

*Hypothesis 3: Personal Resources as Mediator of the Association between Trait-Anxiety and Accepting Responsibility Coping*

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<tr>
<th>Step</th>
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<th>$\beta$</th>
<th>Sobel $(z)$</th>
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<td>Peer-Attachment</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Step 1</td>
<td>Trait-Anxiety $\rightarrow$ Accepting Responsibility</td>
<td>0.06</td>
<td>0.25***</td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td>Trait-Anxiety $\rightarrow$ Peer-Attachment</td>
<td>0.15</td>
<td>-0.39***</td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td>Peer-Attachment $\rightarrow$ Accepting Responsibility</td>
<td>0.00</td>
<td>-0.11ns</td>
<td></td>
</tr>
<tr>
<td>Step 4</td>
<td>Trait-Anxiety, Peer-Attachment $\rightarrow$ Accepting Responsibility</td>
<td>0.07</td>
<td>0.29***</td>
<td>0.14ns</td>
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<tr>
<td>Academic Competence</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 1</td>
<td>Trait-Anxiety $\rightarrow$ Accepting Responsibility</td>
<td>0.06</td>
<td>0.25***</td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td>Trait-Anxiety $\rightarrow$ Academic Competence</td>
<td>0.02</td>
<td>-0.13*</td>
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<td>0.03</td>
<td>-0.16*</td>
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<td>Step 4</td>
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<td>0.07</td>
<td>0.23***</td>
<td>1.44ns</td>
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<td>Social Competence</td>
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<td>Step 1</td>
<td>Trait-Anxiety $\rightarrow$ Accepting Responsibility</td>
<td>0.06</td>
<td>0.25***</td>
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<td>Step 2</td>
<td>Trait-Anxiety $\rightarrow$ Social Competence</td>
<td>0.04</td>
<td>-0.02**</td>
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<td>Step 3</td>
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<tr>
<td>Step 4</td>
<td>Trait-Anxiety, Social Competence $\rightarrow$ Accepting Responsibility</td>
<td>0.07</td>
<td>0.27***</td>
<td>-0.61ns</td>
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</table>

*P<.05, **P<.01, ***P<.001, ns P>0.05

In summary, the results indicated that, trait-anxious girls were significantly more likely to use emotion-focused coping. More specifically, they used four emotion-focused strategies including self-controlling coping, accepting responsibility coping, and escape-avoidance coping significantly more than their non-trait-anxious peers. They were also
more likely to use one of the problem-focused strategies specifically, confrontive coping. Furthermore, trait-anxious girls also had significantly less Mother and Peer-Attachment and lower Academic competence than non-trait-anxious girls.

In relation to the hypotheses outlined for the study, hypothesis 1 was not supported by the findings since trait-anxiety was negatively associated with seeking-social support coping. However, hypothesis 2 was supported showing that Mother-Attachment fully mediated the relationship between trait-anxiety and self-controlling coping. Likewise, hypothesis 2 also showed that Mother-Attachment partially mediated the relationship between trait-anxiety and escape-avoidance coping. Hypothesis 3 was only partially supported: personal resources, academic competence, but not Peer-Attachment or Social competence, partially mediated the relationship between trait-anxiety and accepting responsibility coping.
Chapter IV
Discussion

First, the main findings were derived from the analyses of the three hypotheses. These findings are discussed as they relate to previous research literature. Then, the methodological and research implications of the study are presented. Finally, the limitations of the study are reviewed and suggestions for future research are provided.

Significant Findings

The findings from this study demonstrated the complexity of relationships among coping, attachment and personal resources for trait-anxious girls during adolescence.

The Role of Emotion-Focused Coping

This study suggested that trait-anxious girls were more likely to use emotion-focused coping than their non-anxious counterparts. The critical distinction between emotion-focused coping and problem-focused coping is that emotion-focused coping is related to the emotional regulation of stress reactions; whereas, problem-focused responses require that adolescent girls take active steps by formulating a plan and a solution to the problem to help them change the stressful situation. Conversely, stressful situations can evoke an emotional reaction; this is when emotion-focused coping responses are relied upon. Emotion-focused coping includes responses that assist individuals in regulating their emotions. This may include the regulation of an individual’s emotional expression, seeking social support from others, comfort, avoidance or distancing.
More specifically, in this study, analyses by coping process indicated that trait-anxious adolescent girls compared to the non-anxious girls were significantly more likely to use one problem-focused strategy (Confrontive coping) and three emotion-focused strategies (Self-Controlling, Accepting Responsibility and Escape-Avoidance Coping). These findings suggested that trait-anxious adolescent girls tend to engage in active aggressive efforts to alter a situation, which could include some degree of hostility and risk-taking behavior (Confrontive Coping). Further, trait-anxious adolescent girls reported that they used more strategies to regulate their feelings and actions (Self-Controlling Coping) compared to their non-anxious counterparts. Trait-anxious adolescent girls appeared to have more awareness and acknowledgement about the role that they play in a specific problem and tended to make efforts to resolve the situation (Accepting Responsibility Coping). Finally, trait-anxious girls engaged in wishful-thinking and made behavioural attempts to escape or avoid the problem (Escape-Avoidance Coping) more frequently than their non-anxious counterparts.

To explore these coping strategies in more detail, subscales of the WAYS of Coping revised questionnaire were also evaluated (Folkman & Lazarus, 1988). According to Folkman and Lazarus (1985) emotion-focused coping such as escape-avoidance and distancing oneself from the problem are used when the stressor is perceived as uncontrollable. Thus, contrary to the literature which reports negative outcomes with this type of coping strategies, escape-avoidance coping may be a healthy response for these girls who feel they do not have control over the outcome of a particular situation. According to Folkman and Lazarus (1985) more problem-focused coping will be used in response to situations appraised as changeable. The coping processes which were dominant in changeable encounters include: confrontive coping, accepting responsibility, planful problem-solving and positive reappraisal. How adolescent girls cope is of particular interest because research has indicated that some
coping strategies are more adaptive than others. Folkman and Lazarus (1986) contend that no particular coping strategy is better than another. In fact, they emphasized the importance of using both emotion-focused and problem-focused coping. They reported that the combinations of both coping processes are found to have favorable outcomes. Frydenberg and Lewis (2004) have cited that there are productive and non-productive coping strategies. They recommended that by de-emphasizing the use of unproductive coping strategies that it will facilitate the use of more productive or healthier coping.

The goal of the current study was not to delineate what type of coping strategy determines a healthy versus unhealthy coping response. Instead it was to understand the coping process which trait-anxious adolescent girls use when dealing with their worries and stressors. A vast amount of research indicated that emotion-focused coping is related to greater internalized behaviour problems in contrast to problem-focused coping which is reported as being more beneficial in the long term when dealing with adversity (Neria, Guttmann-Steinmetz, Koenen, Levinovsky, Zakin, & Dekel, 2001; Compas et al., 2001; Recklitis & Noam, 1999; Compas & Grant, 1995).

Other research suggested that the use of specific coping strategies was influenced by perceived threats to ones self-esteem (Mikulincer & Florian, 1995; Neria et al., 2001). These findings were consistent with Folkman et al. (1986) who found that certain coping strategies were more prevalent when individuals felt that their self-esteem was at stake. The coping strategies that were used more include confrontive coping, self-control, and escape-avoidance coping; and accepted more responsibility than when self-esteem was not at stake. In this study, hypothesis 1 revealed that seeking-social support was negatively associated to how trait-anxious girls cope in comparison to non-trait-anxious girls. This means that, trait-anxious girls do not make efforts to seek informational support, tangible support, and/or emotional support. Notably, prior research from Folkman et al. (1986) explained that individuals used less social-support when a threat
to their self-esteem was involved. They suggested that shame or embarrassment may be a factor for those not seeking social support when their self-esteem is at risk. Lack of confidence and self-doubt are common challenges that adolescent girls face. Such challenges did appear to impact these adolescent females’ appraisal of a stressful situation, and whether it was emotionally safe for them to use a particular coping strategy.

When examining the inter-relationship among coping strategies, the findings revealed adolescent girls who used confrontive, self-controlling, or distancing coping were more likely to use all seven of the other coping strategies. Depending on their appraisal of a potentially stressful situation, and based on the coping strategies identified above, trait-anxious girls were more likely to use active efforts to alter the situation, make light of the situation, or make an attempt to regulate their stress-related feelings. If the adolescent girls with stronger coping skills used any of the three strategies mentioned above, they were more likely to use the other coping strategies. Such an approach would expand their coping repertoire.

**The Role of Attachment**

*Secure attachment.* In this study trait-anxious girls also perceived their attachment to their mothers as less secure than their non-trait-anxious peers. Greater perceived Mother-Attachment would promote more interpersonal resources which are known to enhance coping skills and a sense of personal worth (Rubin, Dwyer, Booth-Laforce, Kim, Burgess and Rose-Krasnor, 2004; Allen et al., 2007). In accordance with attachment theory girls with secure parental attachment would tend to relate to themselves and others differently than insecurely attached adolescents. Secure attachment is related to self-confidence, healthy adjustment, the positive life transitions (Allen et al., 1998; Wilkinson, 2004). Securely attached girls have a more positive view
of themselves and others. Rubin et al. (2004) found in their study that adolescents internal working models of parental and Peer-Attachment were associated to their self-concept. Adolescents who reported greater parental support viewed themselves as more worthy and socially competent. In addition both Rubin et al. (2004) and Laible, Carlo, and Raffaelli (2000) they found that secure attachment resulted in fewer internalizing and externalizing behaviours.

Since healthy attachment is related to cognitive and emotional adjustment, it was not surprising that in this study trait-anxious girls were less securely attached to their parents and their peers than their non-anxious counterparts. Individuals who reported insecure attachment such as, anxious-avoidant attachment also report using more maladaptive coping strategies (Mukulincer & Florian, 1998). The findings in this study replicated the findings from earlier research (Sieffge-Krenke, 2006; Merlo & Lakey, 2007; Howard & Medway, 2004; Mukulincer & Florian 1998) that showed a negative relationship existed between psychopathology and support-seeking coping strategies and problem-solving coping strategies. The trait-anxious girls used more emotion-focused coping and relied on themselves to deal with problems by regulating their own feelings and behaviour and/or they would use wishful-thinking and hope that the problem would go away.

**Insecure attachment.** In this study, hypothesis 2 revealed that perceived insecure Mother-Attachment did play a significant role in how trait-anxiety influenced how adolescent girls make efforts to regulate their feelings (self-controlling coping) or engaged in wishful thinking and behavioural efforts to escape or avoid problems (escape-avoidance coping). This finding supported the emerging literature. According to Mikulincer and Florian (1995), compared to their securely attached peers, girls with insecure attachment used less effective coping in stressful situations and appraised the situation as more threatening and themselves as less capable to cope. Howard and
Medway (2004) went beyond the existing research by examining the role of attachment in predicting how attachment style and coping are related and generally found results supportive of attachment theory. Similar to Mikulincer and Florian (1995), Howard and Medway (2004) found insecurely attached individuals tend to avoid positive coping strategies, possibly because they lack trust in others.

The Role of Personal Resources

As the research indicated adolescence is an important transitional time with biological and social changes. During adolescence there is a heightened risk of depression, suicide, conduct disorders and substance use. While many manage to deal with this transition period with much success, happiness and confidence there are some that experience confusion and distress. Protective factors or personal resources such as, parent and peer support, social and academic competence and self-esteem can help navigate the transition with success (Wilkinson, 2004, Rubin et al., 2004).

In this study hypothesis 3 revealed that academic competence, but not Peer-Attachment or social competence, played a role in how trait-anxiety influences how adolescent girls acknowledged their own role in the problem and tried to make things right (accepting responsibility coping). Characteristics of the cognitive process for those who use accepting responsibility coping is self-criticism, problem ownership and some self-blame. Higher achievers academically tended to engage in this line of cognitive processing more readily than non-achievers. Academic competence (GPA) was negatively related to confrontive (aggressive coping efforts or risk-taking), accepting responsibility (trying to make things right), and escape-avoidance (wishful thinking or escaping from the problem) coping.
Implications for Practice and Future Research

The results of this study have implications for treatment of adolescent girls with trait-anxiety. In this study, trait-anxious girls used the same range of coping strategies as their non-anxious counterparts. However, the two groups were distinguished as the trait-anxious girls tended to use significantly more coping strategies, including three of the emotion-focused strategies (Escape-Avoidance, Self-Controlling and Accepting Responsibility Coping); and one problem-focused strategy (Confrontive Coping). These findings have clear clinical implications. The use of confrontive coping can be associated with healthy outcomes. Trait-anxious girls who use confrontive coping are more likely to stand up for themselves and advocate for what they want. They are demonstrating the necessary internal resources to address a problem in an assertive and direct manner.

Conversely, confrontive coping could also mean that trait-anxious girls may be more emotionally reactive during stressful times. They may express their anger more willingly or take risks in the process of resolving a problem. The risk-taking that Folkman and Lazarus (1988) described, which is related to confrontive coping includes: trying to make themselves feel better by drinking, smoking using drugs or displacing on other people (Folkman & Lazarus, 1988). Escape-Avoidance coping is strongly related to internalized behaviours problems (Compas et al., 2001).

However, the findings in this study suggested that although these girls are more likely to express their anger to the person causing the problem or engage in risky behaviour, they also have developed a greater ability than their non-trait anxious peers to apologize and take responsibility (Accepting Responsibility Coping). Hence, the findings suggested that the trait-anxious girls in contrast to the non-anxious peers worked harder on their own to deal with their problems, they used self-criticism, they stood their ground by not backing down and they kept others from knowing about their problems and worries.
In effect, the trait-anxious girls used a range of strategies that may be seen as productive and unproductive, depending upon the circumstances of their coping choices. Frydenberg and Lewis (2004) found that 976 adolescents who characterized themselves as self-professed weak copers were already using some of the coping strategies recognized elsewhere as productive, for example seeking relaxation, distraction seeking, social-support, hard work and problem-solving. However, Frydenberg and Lewis (2004) reported when adolescents felt that their attempts to use the productive strategies were ineffective, they may revert to using non-productive strategies. The data from the current research and the past research suggests that health professionals should focus on how frequently trait-anxious girls use certain coping strategies and their perceptions of their effectiveness. Furthermore, Frydenberg and Lewis (2004) recommended that health professionals de-emphasize the use of nonproductive coping strategies such as worry, self-blame, tension, distancing and wishful-thinking and focus on more productive strategies, such as problem-focused strategies.

Since the findings in this study revealed that trait-anxious and non-anxious girls are using the same overall range of coping strategies, we should pay more attention to the ones they are using significantly more that are related to poorer long-term outcomes (Kendall, Aschenbrand, & Hudson, 2003). This would involve implementing a multi-component skills training program for trait anxious girls that identifies less effective coping strategies, and provides training about how to better develop social support (both peer and family) and the use of productive problem-solving skills.

As mentioned earlier in this study, Peer-Attachment was correlated to seeking-social support coping, while Mother-Attachment was not. This finding is clinically significant because support-seeking and problem-focused coping were associated to fewer depression symptoms (Merlo & Lakey, 2007). Thus, parents, teachers and counselors can focus the trait anxious girls on developing healthy Peer-Attachments.
The use of social support coping clearly has added to the coping repertoire of the subjects within this study.

**Limitations**

This study focused on a sample of participants from two Canadian parochial schools. One school was located in a higher socioeconomic area, while the other was not. The majority of students came from two parent households and a significant number of the girls self-identified as Caucasian. As is the case with any study, the results are only generalizable to teens similar to the current sample in the larger population. Also, a clinical sample of girls with anxiety disorders may have provided different results.

An additional limitation involves the use of self-report instruments with a teenage population. Although self-report measures are commonly used in research settings for assessing anxiety during adolescence, such an approach may have influenced the reporting of anxious symptoms.

**Conclusions**

This study explored girls’ own reports of general worry or trait-anxiety, attachment, and coping methods during adolescence. The findings revealed that trait-anxious girls are capable of using multiple strategies, and reported a range of coping methods similar to non-anxious girls. While they showed no significant differences in coping methods that are considered to be adaptive, they also engaged in strategies that are associated with maladaptive or depressive outcomes. Trait-anxious girls also appeared to have greater vulnerability in terms of social support: They report having less secure parental attachments and social support behaviours with peers. In light of research that supports the importance of strong peer relationships in the ability of young girls to cope in healthy ways (Laible et al., 2000, Allen et al., 2007) the findings
supported building skills for trait anxious adolescent girls so that peer support networks remain robust. Despite engagement in maladaptive coping strategies and poorer peer and familial attachment, trait-anxious girls appeared to be competent in using healthy coping behaviours as much as their non-anxious counterparts. This is an encouraging finding as it suggests that clinicians should continue to encourage the use of coping strategies that are associated with positive outcomes. The fact that trait-anxious girls readily used healthier coping strategies makes them good candidates for treatment programs that would help to substitute maladaptive for adaptive coping methods.
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## Appendix A.

### Ways of Coping

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<th>SCALES</th>
<th>Total (N=246)</th>
<th>Trait-Anxious (n=107)</th>
<th>Non-Anxious (n=138)</th>
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<tr>
<td>Mean</td>
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<td>Range</td>
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<td>129.0</td>
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<td>SUB-SCALES, n (%)</td>
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<td>116 (47.2)</td>
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<td>89 (36.2)</td>
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<td>25 (23.4)</td>
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<td>62 (44.9)</td>
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<tr>
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<td>23 (16.7)</td>
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<td>61 (44.2)</td>
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<tr>
<td>High</td>
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<td>19 (13.8)</td>
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<td>High</td>
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<td><strong>Accepting Responsibility</strong></td>
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<td><strong>Escape-Avoidance</strong></td>
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<td>73 (52.9)</td>
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<tr>
<td>High</td>
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<td><strong>Positive Reappraisal</strong></td>
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<td>59 (42.8)</td>
</tr>
<tr>
<td>Moderate</td>
<td>97 (39.4)</td>
<td>39 (36.4)</td>
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</tr>
<tr>
<td>High</td>
<td>48 (19.5)</td>
<td>27 (25.2)</td>
<td>21 (15.2)</td>
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APPENDIX B

Mother-Attachment by Anxiety Group
### Appendix B.

**Mother-Attachment Scale (IPPA-R)**

<table>
<thead>
<tr>
<th>Attachment, n (%)</th>
<th>Total (N=246)</th>
<th>Trait-Anxious (n=107)</th>
<th>Non-Anxious (n=138)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insecure</td>
<td>30 (12.2)</td>
<td>21 (19.6)</td>
<td>9 (6.6)</td>
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<td>Moderate</td>
<td>75 (30.6)</td>
<td>47 (43.9)</td>
<td>28 (20.4)</td>
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<td>Secure</td>
<td>140 (57.1)</td>
<td>39 (36.4)</td>
<td>100 (73.0)</td>
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APPENDIX C

Personal Resources by Anxiety Group
## Appendix C.

### Personal Resources

<table>
<thead>
<tr>
<th></th>
<th>Total (N=246)</th>
<th>Trait-Anxious (n=107)</th>
<th>Non-Anxious (n=138)</th>
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<tbody>
<tr>
<td><strong>Academic Competence (GPA)</strong></td>
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<tr>
<td>Mean</td>
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<tr>
<td>Range</td>
<td>2.30</td>
<td>2.30</td>
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<tr>
<td><strong>Social Competence (YSR), n (%)</strong></td>
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<tr>
<td>Normal</td>
<td>237 (96.3)</td>
<td>102 (95.3)</td>
<td>134 (97.1)</td>
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<tr>
<td>Borderline</td>
<td>2 (0.8)</td>
<td>0 (0)</td>
<td>2 (1.4)</td>
</tr>
<tr>
<td>Clinical</td>
<td>7 (2.8)</td>
<td>5 (4.7)</td>
<td>2 (1.4)</td>
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<tr>
<td><strong>Extra-curricular Activities (YSR), n (%)</strong></td>
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<tr>
<td>Normal</td>
<td>203 (82.5)</td>
<td>88 (82.2)</td>
<td>114 (82.6)</td>
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<tr>
<td>Borderline</td>
<td>11 (4.5)</td>
<td>4 (3.7)</td>
<td>7 (5.1)</td>
</tr>
<tr>
<td>Clinical</td>
<td>32 (13)</td>
<td>15 (14)</td>
<td>17 (12.3)</td>
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<tr>
<td><strong>Peer-Attachment (IPPA-R), n (%)</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Insecure</td>
<td>3 (1.2)</td>
<td>3 (2.8)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Moderate</td>
<td>23 (9.4)</td>
<td>17 (15.9)</td>
<td>6 (4.3)</td>
</tr>
<tr>
<td>Secure</td>
<td>220 (89.4)</td>
<td>87 (81.3)</td>
<td>132 (95.7)</td>
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</table>
APPENDIX D

Parent Consent Form for Research
PARENT CONSENT FORM for RESEARCH

STUDY: Understanding Coping Strategies Used by Adolescent Girls

Antioch University Seattle
http://www.antiochsea.edu/

Researcher: Lisa Ferrari, MA, Clinical Psychology Doctoral Student (PsyD)

PURPOSE
We are asking your child to participate in a research study. This study is looking at anxious and non-anxious adolescent girls and how they cope with social and emotional experiences.

PROCEDURES
If you give permission for your child to be in this study, and if she agrees, this is what will happen:

- I will ask your child to complete 5 surveys. The surveys will gather some information about your child’s relationships, worries, interests, and habits. These surveys will require up to 1 hour to complete. Some of these questions are very personal. Some examples are: "I try to keep my feeling to myself?" (not used, sometimes used, used quite a bit, or used a great deal), Do you like yourself?" Your child can skip any question she does NOT want to answer.
- Your child will receive a $5 gift card from Starbucks to thank her for taking part in this study.
- Once the study is complete a summary of the results will be presented.

RISKS, STRESS, OR DISCOMFORT
There is little risk and discomfort to your child for participating in this study. Your child might feel embarrassed or uncomfortable in answering the survey questions. Your child may skip any question she does NOT want to answer. Some questions may be frustrating or difficult for your child. Your child may quit at any time.
BENEFITS

Although there will be no direct benefit to your child participating in this study, it may increase our understanding of how adolescent girls deal with their problems. Furthermore, if we can learn how girls are dealing with their problems, then we can provide more recommendations, interventions, treatment and education to adolescent girls, parents, teachers, and other service professionals.

CONFIDENTIALITY

Your child’s participation in this study is confidential. There will not be any identifying information such as your child’s name on the study forms. I will use a code number instead. That way, no one will be able to find out the information about your child. I will NOT give any information I have learned about your child to anyone. All study information will be kept in locked file cabinet.

Exceptions: If I become aware of child abuse or neglect, imminent risk or harming themselves or another person, appropriate steps will be taken to ensure their safety.

If you have any questions about this research, please contact the researcher Lisa Ferrari lisa_ferrari@antiochsea.edu or leave a message at 604.618.1534

Researcher’s signature ___________________________ Date ______________

Parent/Guardian’s Statement:

“The study described above has been explained to me. I voluntarily consent for my child, ___________________________ (child name), to take part in this study. If I have questions in the future about this study, I can call the researcher listed above. If I have any questions about my child’s rights as a participant, I can contact Antioch University Seattle, Human Subjects Review HSRC@antiochseattle.edu

My decision about my child’s participation in this study is checked below.”

☐ YES, I agree have my child participate in the study. By signing below, I give permission for my child’s participation.

☐ NO, I do not want my child to take part in this study.

____________________________ ___________________________
Parent/Guardian signature Date

Copies to: Parent, Researcher
APPENDIX E

Youth Profile Questionnaire
Youth Profile Questionnaire

Thank you for taking the time to complete this survey. Your responses will remain confidential.
I have changed my mind about participating in the study (check) □ IT IS OKAY TO STOP!!

A. Demographic Data: 

What is your Age?

0 13    0 14    0 15    0 16    0 17    0 18

What Grade are you in school?

0 grade 9    0 grade 10    0 grade 11

What is your GPA in school?

0 "A" (86% above)    0 "B" (73% -85%)    0 "C+" (67% - 73%)
0 "C" (60% - 66%)    0 "C-" (50% - 59%)    0 "F" (50% below)

Race:

0 White    0 White non-Hispanic    0 African
0 Hispanic    0 Asian or Pacific Islander    0 Aboriginal
0 Other

Who lives with you? (Check all that are true)

0 Your Mother    0 Your Father    0 Your Stepmother    0 Your Stepmother
0 Other Adult Relatives (i.e. grandmother or aunt)    0 Other Adults

How many brother and sisters do you have that live in your home (including step-siblings
and/or half-siblings)? ________

Are your parents?

0 Married    0 Divorced    0 Separated    0 Widowed

What are the things you do that you find most helpful when dealing with a
problem or a worry? (Explain)

0 Read    0 Listen to music    0 Journal/Writing    0 Talk on the phone    0 Watch TV
0 Eat    0 Exercise    0 ________ (other)    0 ________ (other)

What would you like to do more of or less of? (Explain)