ROLES OF PERCEIVED CONTROL AND COPING STRATEGIES ON DEPRESSIVE AND ANXIETY SYMPTOMS OF ADOLESCENTS

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ABSTRACT

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The purpose of the present study was to examine the effect of perceived controllability about stressful events on coping strategies and symptom levels of adolescents. Participants were 396 students attending through 6th through 10th grades of three different schools in Ankara. Ways of Coping Scale, Beck Anxiety Inventory, Child Depression Inventory, and Adolescent Concerns Scale were administered. Self-defined stressors were categorized under four broad categories - family, school, peers, and self domains. Problem-focused coping, emotion-focused coping, and seeking social support were coping factors emerged in the study. A 2 (sex) x 4 (type of problem) x 2 (controllability) x 3 (type of coping) ANCOVA, controlled for age and socioeconomic status variables was conducted. Type of problem, perception of control, and sex influenced the selection of coping

strategies. The match between control appraisals and coping strategies, and its relation to symptom levels was tested via multiple regression analyses run for anxiety and depression symptoms separately. Controllability x Coping interaction predicted neither anxiety nor depressive symptoms. Use of greater amount of problem-focused strategies as compared to emotion-focused strategies, however, predicted depression symptomatology. Findings of the study were discussed in light of the relevant literature.

Keywords: Adolescence, Coping Strategies, Perceived Control, Anxiety, Depression

ÖZ

ALGILANAN KONTROLÜN VE BAŞA ÇIKMA YÖNTEMLERİNİN ERGENLERİN KAYGI VE DEPRESYON SEMPTOMLARINDAKİ ROLÜ

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Bu çalışmanın amacı, stres yaratan olaylar ile ilgili kontrol algısının ergenlerin başa çıkma yöntemleri ve semptom düzeylerine olan etkisini araştırmaktır. Çalışmaya katılanlar Ankara'daki üç farklı okulun 6-10. sınıflarına devam eden 396 öğrencidir. Başa Çıkma Tarzları Ölçeği, Beck Kaygı Envanteri, Çocukluk Depresyonu Ölçeği ve Ergen Sorunları Ölçeği uygulanmıştır. Katılımcıların kendilerinin tanımladıkları stres yaratan olaylar dört genel kategori altında toplanmıştır: Aile, okul, arkadaşlar ve kendiyle ilgili alanlar. Soruna odaklı başa çıkma, duygu odaklı başa çıkma ve sosyal destek arama çalışmada ortaya çıkan başa çıkma faktörleridir. 2 (cinsiyet) x 4 (problem türü) x 2 (kontrol edilebilirlik) x 3 (başa çıkma türü) tekrarlı kovaryans analizi yapılmıştır. Bu

analizde yaş ve sosyoekonomik durum kontrol değişkenleri olarak kullanılmıştır. Problem türü, kontrol algısı ve cinsiyetin başa çıkma yöntemlerinin seçimini etkilediği görülmüştür. Kontrol algısı ve başa çıkma yöntemlerinin birbirine uygunluğu ile bunun semptom düzeylerine etkisi çoklu regresyon analizi ile test edilmiştir. Kaygı ve depresyon için iki ayrı regresyon analizi yapılmıştır. Kontrol edilebilirlik x Başa çıkma etkileşiminin kaygı ve depresyonu yordayıcı etkisi bulunmamıştır. Sorun odaklı yöntemlerin duygu odaklı yöntemlere göre daha fazla kullanıldığı durumların depresyon semptomlarını yordayıcı etkisi bulgular arasındadır. Çalışmada elde edilen bulgular ilgili literatür ışığında tartışılmıştır.

Anahtar Sözcükler: Ergenlik Dönemi, Başa Çıkma Yöntemleri, Algılanan Kontrol, Kaygı, Depresyon

to my parents

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CHAPTER I

INTRODUCTION

Adolescence is a period of life that is most commonly associated with change. There is a vast number of studies mentioning various changes that the adolescent is confronted with. Adolescence, which is a transition period between childhood and adulthood, involves extensive change covering important domains of life such as school, family, and peer relations. These changes that are experienced by the adolescent constitute a starting point in adolescent research.

Adolescence involves various normative challenges for the young person. Identity formation, achieving independence from the family, gaining peer acceptance, setting goals for the future, deciding an occupation are the developmental tasks that all adolescents are confronted with. Physiological changes of puberty and cognitive development lead to changes in mind and body in adolescence (Frydenberg & Lewis, 1993). In addition to these intraindividual changes, adolescents are faced with context changes in the family, peer group, school, and the broader society. Expectations about and attitudes toward adolescents change in these contexts as they move from childhood to adolescence (Petersen & Hamburg, 1986). For example, transition to higher levels of education that is part of

adolescence bring about new demands and changes in relationship with peers and the family (Isakson & Jarvis, 1999).

Changes in adolescence are seen as developmental tasks that the adolescent has to achieve in order to move on to the developmental tasks of adulthood. These tasks cover a wide range of domains including the biological, social, cultural, and intellectual. Havighurst (cited in Dusek, 1987) summarizes developmental tasks of adolescence under nine categories: (1) accepting own physical characteristics and acquiring a feminine or masculine role, (2) achieving appropriate relations with peers of both sexes, (3) achieving a balanced emotional dependence with parents and other adults, (4) attaining the assurance of economical independence, (5) making an occupational choice and preparing for it, (6) developing the necessary intellectual skills in order to achieve social competence, (7) developing socially responsible behavior, (8) making preparation for marriage and family life, and (9) acquiring a set of values and conscience to guide behavior.

Until a few decades ago, extensive changes experienced in adolescence led to notions like identity crisis, generation gap, disruption and instability during this period. These terms were associated with adolescence, because adolescence was viewed as a developmental stage of storm and stress. Today, however, adolescent is seen as an individual responding to the new demands of this developmental stage and who is an active producer of his/her own development. This experience of the adolescent is viewed as a *coping* process rather than a crisis. Even the problem behaviors are seen as part of the normal development (Bosma & Jackson, 1991; Powers, Hauser, & Kilner, 1989). It is noted that current research on adolescent

research is process-oriented and takes person-environment interaction into account (Petersen, 1988). Furthermore, an emphasis on coping with developmental tasks in adolescence help understanding adolescent psychopathology as well (Fields & Prinz, 1997).

Developmental challenges and hurdles of adolescence put adolescents in a position to deal with demands that they experience for the first time in their lives. Adaptation to these new demands is achieved through use of various cognitive and behavioral strategies, which are part of a coping process (Bosma & Jackson, 1991; Frydenberg & Lewis, 1991, 1993; Isakson & Jarvis, 1999).

Bosma and Jackson (1991) review the research in the field of adolescent psychology by emphasizing the overlaps between two domains: coping and developmental tasks in adolescence. From the coping-with-developmental tasks perspective, changes and demands facing the adolescent are important in the sense that they require active coping by the adolescent. When adolescents are confronted with many changes and demands in this developmental period, their task becomes to cope with them. Then, they use their behavioral resources and assess the effectiveness and outcomes of their coping behaviors. Various strategies are tried, tested and some are excluded in this process (Zeidner & Hammer, 1990). When the adolescent copes with the demand, this leads to a short-term adaptation. In the long run, assessing the effectiveness of adaptive behavior and acquiring new ones contribute to the developmental process as a whole. Coping in adolescence is important in the sense that its effectiveness influences the rest of the life span (Newcomb, Huba, & Bentler, 1986) and failure to cope with hurdles of adolescence

may lead to internalizing (eg. depression) and externalizing problems (eg. delinquency) in this period (Petersen, 1988). By adapting to the developmental tasks, the normal adolescent shows a developmental progression. In fact, this is a stressful process for adolescents. In this respect, adolescence presents a rich area of investigation for studying stress and its consequences for most of the researchers (Frydenberg & Lewis, 1991, 1993; Rice, Herman, & Petersen, 1993).

It is apparent that there is a move away from early conceptualizations of adolescence as a period of storm and stress. Challenges of adolescence are studied within the coping-with-developmental tasks perspective. Since the developmental tasks that the adolescent has to cope with are usually stress-inducing, adolescence is seen as an excellent area of research for studying stress and coping. Present study aims to investigate adolescent coping with an emphasis on specific features related to this process. Following the coping framework in adolescence, the nature of the changes that the adolescent has to cope with is explored first.

1.1 Major Concerns and Problem Areas in Adolescence

A series of studies examine major concerns and problem areas in adolescence. It is important to explore these problem areas since they have an impact upon the selection of coping strategies. Age and gender seem to be the major factors affecting the frequency and type of common stressors reported in adolescence. In this section, the review of studies that examine the common concerns reported in adolescence is followed by the age and gender differences in adolescents' concerns. Some other factors that affect the report of these concerns are highlighted as well.

Most frequently reported problem areas in middle adolescence are school, parents, peers, and boyfriend/girlfriend relations (Stark, Spirito, Williams, & Guevrement, 1989); school, family, and social relations (Halstead, Johnson, & Cunningham, 1993). From early to middle adolescence, most common problem areas are school, siblings, parents and friends (Spirito, Stark, Grace, & Stamoulis, 1991). In a cross-cultural study with middle adolescents, common problem areas are academic failure, conflict with parents and teachers, relations with the opposite sex, dissatisfaction with self, future in terms of occupation, membership to peer group, and use of leisure time (Seiffge-Krenke & Shulman, 1990).

Türkan (1990) investigated problem areas of adolescents in a Turkish sample of high school students coming from different socioeconomic backgrounds. School problems, emotional problems, family problems, and health problems were the major domains respectively. Frequency of school and emotional problems was higher in the low Socioeconomic Status (SES). On the other hand, family and health problems were more frequently reported by the high SES group.

When the relationship between coping behavior of adolescents and the nature of their concerns are examined regardless of age, gender, and ethnicity three problem areas emerge - achievement issues in employment, exams, and marriage; broad-based social issues; relationships with peers, family, and independence from parents (Frydenberg & Lewis, 1994). From early to late adolescence, across different age and ethnicity most common concerns are their health, success in school, and social relationships (Kaufman, Brown, Graves, Henderson, & Revolinski, 1993).

Studies examining the most common stressors across different stages of adolescence like early, middle, and late adolescence reveal differences in the frequency of problems. Although the common stressors remain the same, an increase in problems with the opposite sex and a decrease in problems with siblings are observed from early to middle adolescence (Spirito et al., 1991). When age range covers only middle adolescence, such differences are not observed (Stark et al., 1989).

A distinction is made between types of changes in adolescence (Rice et al., 1993). Changes of this period are grouped as *normative life events*, *non-normative life events*, and *hassles*. Normative life events are part of the life course and most of the people experience these events at about the same time in their lives. These include the types of events that have been mentioned in the present study so far, such as transition to higher level of education, puberty and so forth. Non-normative life events, on the other hand, are not experienced by so many people and do occur less frequently. These include loss of a significant one, parental divorce and so forth. The last type of changes include daily hassles that are most commonly and frequently experienced by people. They are daily stressors and part of daily life. Perceived frequency of the event may differentiate major life events, (ie.) non-normative life events, from daily hassles (Davis & Compas, 1986; Wagner, Compas, & Howell, 1988).

When daily stressors are examined in adolescence, it is indicated that number of reported daily events increases with age, from early to late adolescence (Compas, Davis, & Forsythe, 1985).

Sex differences are documented in major concern studies in adolescence. Females report significantly more worries than males (Kaufman et al., 1993). Sex differences are reported even if the age range is narrow and covers only a single stage of adolescence. Although four groups of common stressors - problems with school, parents, friends, and the opposite sex, are the same for both sexes in middle adolescence, the order of the reported frequency of these concerns differ for males and females. For males, the order of the problem areas are school, parents, friends, and opposite sex. For females, however, problems with parents is in the first order and is followed by the problems with the opposite sex, friends, and school (Stark et al., 1989).

The influence of timing of data collection on reported problems is documented in literature. The fact that adolescents are sensitive to social issues is reflected in a study in which terrorism, a broad-based social issue, is in the first order of common problems for both male and female adolescents. This finding is claimed to be a result of the frequent broadcasting about terror events at the time of the investigation (Kaufman et al., 1993).

In sum, most common problem domains in adolescence are school, family, peers, achievement issues and relationships with the opposite sex. Age and sex differences are documented in these studies. These differences are revealed in the reported frequencies of the problem domains. The order of the most frequently reported concerns is different for both sexes and for different age groups. Age differences appear when the age range is wide in adolescence. Sex differences, on the other hand, exist whether the age range is narrow or not. Females report more

stressors as well. When stressors are classified as normative events, non-normative life events, and daily hassles, it is seen that adolescents report more hassles as they move from early to late stages of adolescence.

1.2 Coping Strategies in Adolescence

Generally speaking, adolescents experience problems in school, in their relationships with parents, siblings, peers, and boyfriends/girlfriends. As mentioned earlier, research findings indicate age and sex differences in these concerns. When coping strategies used for different problems are considered, age and sex differences still exist. Additionally, coping strategies of adolescents change according to the problem domain. Use of coping strategies varies as a function of problem domain; certain coping strategies are preferred in response to specific problems (Fields & Prinz, 1997; Spirito et al., 1991).

It is often reported in literature that type of problem reported influences the selection of coping strategies. For problems in relations with the opposite sex, more various strategies are used at greater frequency (Stark et al., 1989). Problem-focused coping strategies are most frequently used in response to school-related problems. Use of problem-focused strategies is least common with health concerns (Halstead et al., 1993) and broad-based social issues (Frydenberg & Lewis, 1994). Achievement problems in employment, exams, and marriage lead to more use of focus on the positive, which is an optimistic approach in nature (Frydenberg & Lewis, 1994).

Differences in coping responses as a function of problem areas are revealed in cross-cultural studies as well. Due to different cultural norms and values, adolescents demonstrate different coping patterns. Adolescents in one culture use regulating emotions and reappraising the situation for interpersonal problems, whereas withdrawal and fatalistic approach dominate in dealing with the problems concerning the self, leisure time, and future in the other one (Seiffge-Krenke & Shulman, 1990).

As in the case of adolescents' major concerns, no age difference in coping strategies is found when age range is narrow (Stark et al., 1989). This is documented in cross-cultural comparisons as well (Seiffge-Krenke & Shulman, 1990). From early to middle adolescence, however, coping strategies vary as a function of age. Younger adolescents use a wider range of coping strategies at a greater frequency than the older ones do. In early adolescence, various strategies like problem solving, cognitive restructuring, emotion-regulation, and wishful thinking are used more than in middle adolescence (Spirito et al., 1991).

Sex differences in the use of coping strategies for specific problem areas are observed. As in the case of adolescent concern studies, these sex differences are present regardless of the age range. Gender differences appear in the frequency and variety of coping strategies used. Females use wider variety of coping strategies more frequently than males (Patterson & McCubbin, 1987). That females use wider variety of coping strategies is documented in adult coping studies as well (Stone & Neale, 1984).

Male and female adolescents use problem-focused coping to the same extent (Frydenberg & Lewis, 1991; 1993). However, girls use more seeking social support (Frydenberg & Lewis, 1991; 1993; Halstead et al., 1993; Spirito et al., 1991; Stark et al., 1989) and wishful thinking (Frydenberg & Lewis, 1991; 1993) than boys do. On the other hand, boys use physical recreation more than girls (Frydenberg & Lewis, 1993). When their coping behaviors are taken as a whole, girls are more passive than males in their coping efforts (Seiffge-Krenke & Shulman, 1990) and use more non-productive strategies that have emotion-focused characteristics (Frydenberg & Lewis, 1993). The fact that female adolescents refer to others more than males is also documented in cross-cultural studies (Seiffge-Krenke & Shulman, 1990) and is parallel with sex differences indicated in adult coping studies (Folkman & Lazarus, 1980; Heppner, Reeder, & Larson, 1983; Stone & Neale, 1984). Adolescent studies point out that sex differences in coping behavior appear by middle adolescence (Spirito et al., 1991; Stark et al., 1989).

A possible explanation for the more frequent use of seeking social support by females is put forward by Shulman (1993). It is proposed that as a result of different socialization processes, males and females develop different tendencies to seek support from others and this is reflected in their coping behavior as well. Relationships with peers and family undergo certain changes due to developmental aspects. Adaptive coping is possible when the adolescent both in peer and family relations achieves a balance between autonomy and closeness. However, females and males differ in their relationships with significant others. For females, independence is embedded in relationships and this does not interfere with autonomy. Males, seeks more autonomy rather than advice. In this case, relations

with family and peers may be both supportive and stress-inducing as a consequence of the climate of the relationship. One cannot ignore the fact that parents and significant others outside the family serve as coping models for the adolescent as well. This contributes to the differential socialization processes of both sexes.

Despite all the variations mentioned thus far, consistencies in coping behaviors of adolescents are documented as well. Regardless of age, gender, and ethnicity wishful thinking is a common strategy in all three problem areas - achievement, relationships and social issues. (Frydenberg & Lewis, 1994).

In literature, use of different types coping strategies and their relation to adjustment is often cited. Generally, when direct actions for solving the problem dominate as compared to non-productive strategies like escape, avoidance, and emotional discharge, this leads to better adjustment (Glyshaw, Cohen, & Towbes, 1989). This relationship between type of coping and adaptation has developed by late adolescence (Jorgensen & Dusek, 1990).

To sum up, nature of the problem experienced seems to be an important factor affecting the selection of coping strategy in adolescence. As in the case of concerns, age and gender differences are observed in coping behaviors and these differences show a similar trend. Age differences appear when the age range is large; in the early stages of adolescence, young people use more various strategies at a greater frequency than they do at later stages of adolescence. Sex differences, on the other hand, exist regardless of age range. Both sexes use problem-focused strategies to the same extent whereas female adolescents use emotion-focused

strategies more than the males. Specifically, female adolescents refer to others more than males as in the case of adult females. A final point in coping behavior of adolescents is the association between the use of certain coping strategies and adaptation of the adolescent.

1.3 Implications of Major Concern and Coping Studies in Adolescence

Investigation of adolescent concerns and coping behaviors has important implications in terms of both theory and practice. Mainly, these studies provide normative data (Stark et al., 1989) and point to the domains in which adolescents are vulnerable (Kaufmann et al., 1993). This line of investigation leads to integration of clinical and developmental perspectives in adolescent research (Petersen, 1988).

It is often documented in literature that research on common problems and coping behaviors of adolescents provide information for practitioners who deal with adolescents in school (Frydenberg & Lewis, 1991), in clinical settings (Stark et al., 1989), and in medical settings (Sobal, Klein, Graham, & Black, 1988). In school settings, knowledge about students' concerns and coping behaviors may guide counsellors and educators in their approach to this group. Moreover, in occupational counselling, information about young people's coping style may serve as guides in the selection of jobs. This information can lead clinical interventions as well. For example, substance use, which is an important problem behavior in adolescence, can be explained within the coping with developmental tasks perspective. As mentioned earlier, achieving independence from the family is one of the developmental tasks of adolescence. From this perspective, it can be argued that

acceptance to peer group gains importance as a result of this task and that substance use provides this opportunity, because it requires membership to a peer group. This aspect is claimed to be a coping behavior since it involves coping with a certain developmental task of adolescence - achieving independence from the family by getting accepted to peer group (Patterson & McCubbin, 1987). As a result of this information, it is emphasized that preventive programs for adolescent health-risk behaviors be targeted at both family and peers (McCubbin, Needle, & Wilson, 1985). Intervention programs for adolescents coming from high-stress family environments also benefit from stress and coping research in adolescence (Hirsch, 1985). Medical setting is another area for which knowledge about adolescents' concerns is important. Physicians who provide medical care for adolescent patients may benefit from knowledge about adolescents' health concerns or lack of concerns in their interventions (Sobal et al., 1988).

Gender difference often reported in coping research has important implications as well. When repertoire of coping skills is widened, changes due to situational demands become possible. Boys and girls can be helped to widen the range of their coping strategies (Frydenberg & Lewis, 1991).

To conclude, it can be said that investigation of major problems and coping behaviors in adolescence is crucial in many respects. Since the recent trend in adolescent psychology is the study of coping with developmental tasks of the period, need for this line of investigation gains significance. Besides this theoretical benefit, those who work with adolescents in different settings benefit from these findings in a way that leads them toward the target of their interventions. After

reviewing the literature on adolescent coping, there is a need for a more general theoretical review on coping. It must be noted that much of the below findings come from adult studies.

1. 4 Cognitive Theory of Stress and Coping

Coping with stress is conceptualized as a dynamic process by recent theories of stress and coping (Folkman & Lazarus, 1985; Roth & Cohen, 1986). Change underlies stress, coping, and adaptation. That's why, these concepts require studying process rather than structure that is dependent on stable characteristics (Folkman & Lazarus, 1985). This conceptualization is different from trait approach to coping that relates coping styles to certain personality characteristics (Kobasa, 1982).

Cognitive theory of stress and coping take a *relational* and *process-oriented* perspective towards these concepts. Relational characteristic refers to the particular relationship between the person and environment. From this perspective, neither the person nor the environment alone is the antecedent of stress. Stress is not viewed as a response to a single stimulus. According to the cognitively-oriented conceptualization, stress is a particular relationship between the person and the environment in which the person perceives a threat to his/her well-being, or a situation that requires the use of all resources or that is beyond own resources. Process-oriented characteristic of this relationship refers to the dynamic, ever-changing nature in which the person and environment interact and affect each other bidirectionally (Folkman, 1984). Contextual factors play an important role in the use of coping strategies. Due to different situations in the environment, use of

coping strategies differ as well (Fields & Prinz 1997; McCrae, 1984). Lazarus (1993) finds early definitions of stress unidimensional and rejects traditional views of coping as traits or styles that are stable characteristics of the personality. Coping is defined as a process in which the person demonstrates cognitive and behavioral efforts to manage the internal and external demands of the person-environment relationship. This definition of coping does not include the assessment of success. Coping efforts, rather than the effectiveness of the strategies used, are emphasized (Compas, 1987). With this emphasis on efforts, this definition is differentiated from popular conceptualizations that define coping as managing successfully, and not coping as a failure to manage stress (Folkman, 1984).

1.4.1 Cognitive Appraisals

Appraisal is the cognitive mediator of stress reactions. It is a universal concept and emerges as a consequence of individuals' ongoing evaluation of events in terms of their relevance to their well-being. Stress is a reaction to the harms and threats occuring in the person- environment transaction (Lazarus, 1993). Roth and Cohen (1986) focuses mainly on the processing of threatening information in the study of coping with stress.

Primary and *secondary appraisals* together shape the meaning of the event for the individual (Folkman, 1984). With primary appraisal, person decides whether the event is irrelevant, positive/benign, or stressful. An irrelevant event is one that has no significance in terms of one's well-being, or one with no dangerous outcome for the person. A positive/benign event has a positive outcome. When an encounter is stressful, it can be a harm/loss, threat, or challenge (Folkman & Lazarus, 1985).

Harm/loss is a psychological damage already done like an irreversible loss. Threat is a harm or loss that has not occurred, but one that is expected. Challenge is a difficult situation in which the person feels that s/he can overcome by using resources of coping and in which there is a potential for growth and improvement. These three types of stress may have different antecedents and consequences both for the individual and the environment. They lead to different emotional states as well (Lazarus, 1993). Harm/loss, threat and challenge appraisals are not mutually exclusive and are associated with different types of emotions. Harm/loss and threat usually lead to negative emotions and challenge leads to positive emotions (Folkman, 1984).

Primary appraisals are affected by individual factors like the person's beliefs and commitments. Beliefs are general notions about oneself and the world. Among beliefs, generalized beliefs about control are important since they have an effect upon primary appraisals. Individuals' beliefs concerning the extent to which they can control the outcomes of significant events influence their primary appraisals. Commitments, another factor affecting primary appraisal, include ideals, values and specific goals of the person. The value and significance of what is at stake will determine the extent to which it is appraised as a threat. Commitments will also influence the control beliefs. Personal commitments lead to greater perception of threat and in these kinds of situations the controllability issue becomes more important. Whether the person has control over the stressful encounter or not is of greater importance when there is a potential harm to individual's commitments. In addition to personal factors, situational determinants influence primary appraisal as

well. Among situational factors are the timing, nature, familiarity/novelty, ambiguity, and likelihood of the occurrence of event (Folkman, 1984).

Secondary appraisal is related with the question "What can I do?" With this question in mind, individual examines own coping resources and options. These resources include psychological, social, physical, and material resources. As mentioned before, generalized beliefs of control are included in the primary appraisal. In secondary appraisal, situational beliefs about control become influential. Situational appraisals of control are determined by the specific conditions of the stressful event. Since they are affected by situational factors, this type of control beliefs may change over the coping process and across different stressors. Change in control beliefs may occur due to the outcomes of coping efforts or to just trying out new options (Folkman, 1984).

1.4.2 Types of Coping

Coping strategies are classified with different names by researchers. Roth and Cohen (1986) claims that *approach* and *avoidance* underlie coping process. In simple terms, coping is cognitive or behavioral actions either toward or away from threat. Approach and avoidance coping are classified further into cognitive and behavioral subtypes as behavioral approach or avoidance and cognitive approach or avoidance (Valentiner, Holahan, & Moos, 1994).

Lazarus (1993) states that coping may result in two ways: If using direct coping behaviors changes the person-environment relationship, this type of coping is called *problem-focused coping*. If what is changed is only how the person

interpretes the environment, or what is focused on in the environment, this is *emotion-focused coping*. In this type of circumstances, avoiding thinking, reappraising a threat as nonthreathening, and denying the significance of an event all cause a decrease in stress level. As this classification shows, the consequence of problem-focused coping is a change in external conditions and emotion-focused coping results in an internal change within the individual. The emphasis is made upon the point that cognitive appraisal always acts as a mediator in the coping process.

Jorgensen and Dusek (1990) describe two factors in their coping measure. *Salutary efforts* are actions directed at solving the problem, involving in activities that heighten self-esteem, referring to others both for emotional support and exchanging ideas. The second group of coping responses involves non-productive strategies and is called *stress palliation*. Escape, avoidance and emotional discharge are among this type of coping behaviors.

Research shows that both types of coping, whether they are conceptualized as approach/avoidance coping or problem-focused/emotion-focused coping may be used for the same stressful encounter (Folkman & Lazarus, 1980, 1985; Parkes, 1984; Patterson & McCubbin, 1987; Roth & Cohen, 1986). People may use a variety of coping strategies for a single stressor. In Folkman and Lazarus' study (1980), both problem-focused and emotion-focused forms of coping were used simultaneously for 98 % of the stressful episodes reported. Folkman and Lazarus (1985) conducted another study in which they took multiple assessments at three stages of a stressful encounter. Their findings indicated that 94 % of subjects used

more than one type of coping behavior. They used both problem-focused and emotion-focused coping. According to the researchers, the main implication of these findings is the fact that coping is a complex process. Research evidence from approach/avoidance perspective supports these findings as well. Approach and avoidance are not viewed as mutually exclusive. These two forms can be used at the same time for the same stressor. Some aspects of the stressor may be avoided and some other aspects may be approached (Roth & Cohen, 1986). Parkes (1984) groups coping responses of their subjects under general coping, direct coping and suppression categories and examines them in terms of their adaptiveness. In this study it is again claimed that these coping types are not mutually exclusive and can be used simultaneously or sequentially for the same encounter. Coping behaviors serve more than one function. All coping efforts, whether includes direct action or not, are aimed at tension reduction and managing emotional arousal caused by the stressor. Situations confronted while endorsing problem-focused coping may require tension reduction and cognitive reappraisal at the same time (Patterson & McCubbin, 1987).

Combined use of problem-focused and emotion-focused coping point to the possibility that people are responding to different aspects of the event or that they are trying out new behaviors. Using problem-focused and emotion-focused coping at the same time may be adaptive, because problem-focused coping requires emotion regulation as well. By reducing stress, emotion-focused coping functions as a facilitator for problem-focused strategies, especially under highly stressful conditions. However, emotion-focused coping can hinder problem-focused actions by immobilizing the individual (Folkman & Lazarus, 1985). Roth and Cohen (1986)

summarize the potential costs and benefits of approach and avoidance. Avoidance leads to a reduction in stress and provides the individual with the opportunity to process the threatening information gradually. This gradual processing and managing the negative emotions prevent the stressful episode from becoming exhausting for the individual. These aspects of avoidance will facilitate approach coping in the long-run. However, if avoidance causes emotional numbness, keeps the threatening information away from consciousness in disruptive ways, it turns out to be counterproductive. Approach strategies have the greatest benefit of changing the stressful conditions. These efforts, however, may increase the stress level as well. Moreover, under conditions where the individual has little chance to change the stressful conditions, approaching can be nonproductive and overwhelming. In order to be adaptive, these strategies should be used simultaneously or the person should alternate between two types. Using a combination of approach and avoidance is productive. Inflexibility in using two types of coping is not adaptive (Compas, 1987).

Appraisal of control is a variable, which is reported to be associated with the use of different types of coping strategies. The individual's perception concerning whether something can be done to change the stressful encounter or not, influences the coping behavior. If the situation is appraised as changeable, problem-focused strategies are preferred at a greater extent. When the situation is perceived as uncontrollable, emotion-focused coping dominates (Folkman & Lazarus, 1980; Lazarus, 1993). The same is true for approach/avoidance coping. Research evidence suggests that approach coping is better when the event is controllable, and

avoidance coping is more productive when the stressor is uncontrollable (Roth & Cohen, 1986).

1.5 Perceived Control and Coping

In stress and coping research, the role of control beliefs in this process has been noted. It was noted in these studies that the belief that one has control over a stressful encounter can reduce the negative impact of this stressful episode and that control beliefs promote mental health (Taylor & Brown, 1988). On contrary, believing that one has no control over the stresssor is stress-inducing has been the general point of view. However, within the cognitive theory of stress and coping, it is claimed that control beliefs do not always lead to a decrease in stress level. Control beliefs, as part of cognitive appraisals, are mediators of stress and adaptational outcomes (Coyne, Aldwin, & Lazarus, 1981; Folkman,1984).

Cognitive approach to stress and coping, with its emphasis on relational and process-oriented aspects, serves as a guide in understanding the control appraisal in this process. Relational aspect leads us to consider the control appraisal in terms of the relationship between the person and his/her environment. Process-oriented approach necessitates expecting changes in perceived control due to the changes in the dynamic interaction of the person-environment relationship (Folkman, 1984).

Definitions of control emphasize different aspects of the concept. From the cognitively-oriented perspective, control is defined in two ways: (1) A generalized belief about the extent to which one has control over the outcomes of significant events, and (2) a situational belief about the extent to which one has control under

situations specific to a stressor event (Folkman,1984). A distinction is made among three types of control appraisals (Compas, Banez, Malcarne, & Worsham; 1991). First, *judgements of contingency* that can be described as means-end relations or response-outcome expectancies as well. They reflect person's expectancies whether personal, external, or unknown factors lead to specific outcomes. Second, *judgements of personal competence* that are also referred as the agency belief or the self-efficacy expectancies. These are the beliefs that people have the ability to produce desired outcomes themselves. Finally, they define *judgements of control* as believing one's own ability to produce a specific outcome. Judgements of control are a combination of the judgements of contingency and the judgements of personal competence whereas these first two control-related beliefs have no reported association.

Perceived controllability is a powerful predictor of coping when compared with other situational characteristics and is not influenced by dispositional factors. David and Suls (1999) investigated big-five personality traits and undesirability of event in terms of their effect on coping in an adult sample of men. Severity of the problem (desirability/undesirability dimension) is an important situational appraisal but is not as powerful as controllability appraisal in predicting coping.

Perceived control over the stressor, among other cognitive appraisals, seems to be an important factor in the coping process. Relative importance given to different aspects of control appraisal is marked in definitions of control.

1.5.1 Goodness of Fit Hypothesis

The relationship between perceived control, coping strategies, and adjustment levels has been the focus of many studies. As mentioned earlier, for events that are perceived as controllable by the individual, problem-focused strategies that are directed at solving the problem are preferred. On the other hand, emotion-focused strategies are used at a greater extent when events are perceived as uncontrollable. In this case, one can talk about a match between control appraisal and coping. However, this raises a question in mind: What happens when this relationship is reversed? In other words, use of problem-focused strategies for uncontrollable events, and emotion-focused strategies for controllable events should lead to different outcomes. Researchers indicate a mismatch between appraisals and coping behavior in such cases and this relationship is tested with the *goodness of fit hypothesis*. Goodness of fit is described as the match between appraisals and coping responses, or the appropriateness of coping responses to the particular appraisal (Vitaliano, DeWolfe, Maiuro, Russo, & Katon, 1990).

When the situation is appraised as changeable, people use more approach strategies such as confrontive coping, planful problem solving, positive reappraisal, and accepting responsibility. On the other hand, individuals show more distancing and escape-avoidance coping when they face with uncontrollable stressors. This is evident in different stressful encounters reported (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986).

Accumulating evidence on outcomes of the mismatch between control appraisals and coping responses indicate that this mismatch leads to higher symptom levels. When events are perceived as controllable and problem-focused coping strategies are used, a decrease in symptom levels is observed. However, use of problem-focused strategies in uncontrollable situations results in higher levels of psychological symptoms such as anxiety, depression and somatic complaints. With stressors that are appraised as uncontrollable, emotion-focused strategies are more adaptive. In other words, emotion focused coping responses lead to lower symptom levels in stressful situations that are perceived as uncontrollable (Forsythe & Compas,1987) When tested in both psychiatric and nonpsyhiatric samples, goodness of fit is supported for the nonpsyhiatric sample, not for the psychiatric sample. With events appraised as changeable, subjects of the nonpsychiatric sample use more problem-focused coping and demonstrate lower levels of depression. However, an increase in depression levels is observed for those who use emotion-focused coping strategies in response to changeable events (Vitalino et al., 1990).

Perceived control acts as a moderator between coping and psychological adjustment as measured with several instruments including anxiety and depression scales. An indirect effect of perceived control on psychological well-being is suggested. Controllability influences symptom levels through coping process (Valentiner et al., 1994).

When absolute amounts of problem-focused or emotion-focused coping are taken into account, goodness of fit hypothesis is not supported. A relative measurement of either type of coping is preferred in studies (Forsythe & Compas,

1987; Valentiner et al., 1994; Vitaliano et al., 1987). Problem-focused coping is associated with higher symptom levels when considered alone. However, an interaction exists between controllability perception and the ratio of problem-focused to emotion-focused coping in leading to symptoms. As this ratio increases, symptom levels are lower for controllable events, but not for uncontrollable events (Forsythe & Compas, 1987). Parallel with these findings, behavioral strategies, not cognitive strategies, are more evident under controllable stressors (Valentiner et al., 1994).

Following the literature on adult coping, goodness of fit is tested for the adolescents as well. When compared with the influence of other appraisals including frequency of occurrence, duration of event, and evaluation of the problem in terms of its meaningfulness, event controllability has a significant effect on coping behaviors of young adolescents. Among different appraisals, controllability perception predicts problem solving and seeking social support for this group (Gamble, 1994). Moreover, behavioral problems decrease as a function of the match between coping strategies and control beliefs in adolescence. When there is a mismatch between appraisals of control and type of coping responses, an increase in behavioral problems was observed (Compas, Malcarne, & Fondacaro, 1988).

Blanchard-Fields and Irion (1987) examined coping behavior from a developmental perspective. Findings of this study point to an age difference in the mediating role of controllability on coping strategies. Adolescents endorsed more emotion-focused strategies irrespective of perceived control. Older adolescents used more emotion-focused strategies in response to uncontrollable events and more

problem-focused strategies for controllable events. Matching of controllability and type of coping was observed for older adolescents, but not for young adolescents or young adults. Overall, age differences were more prominent for emotion-focused strategies than for problem-focused strategies.

Based on the literature on control beliefs and coping behaviors of children and adolescents, Compas et al., (1991) proposed a model. According to this model, emotion-focused coping is not directly related to control beliefs. Instead, it is directly associated with the level of emotional distress or arousal. The relationship between perception of control and problem-focused coping is reciprocal. As control beliefs increase, use of problem-focused strategies increase as well and when problem-focused strategies are effective, there is also an increase in sense of control. Emotional distress is related to this interaction of perceived control and problem-focused coping. When problem-focused coping is used with controllable stressors, emotional distress decreases. When there is a poor match, the condition in which problem-focused strategies are used for uncontrollable stressors, emotional distress rises. In turn, this will lead to the use of emotion-focused strategies. These findings concerning the relationship between control beliefs and coping strategies are useful in developing intervention programs aimed at enhancing coping skills for adolescents and children. These intervention programs may focus on coping with different stressors ranging from daily hassles to major life events.

An emphasis is made upon the operationalization of control-relevant beliefs as threee types - contingency, control, and competency beliefs in adolescent studies. Another important point indicated in these studies is focusing on a specific problem,

rather than a global assessment of stressors (Weisz, 1986; Weisz, Weiss, Wassermnan, & Rintoul, 1987). These factors have important theoretical and clinical implications in terms of psychotherapy outcomes with children and adolescents (Weisz, 1986), and adolescent psychopathology (Weisz et al., 1987).

1.5.2 Developmental Changes in Perceived Control and Coping Behavior

Studies examining the development of coping skills propose that problem-focused coping develop earlier than emotion-focused coping and emotion-focused coping increases with age (Altshuler & Ruble, 1988; Band & Weisz, 1988; Compas et al., 1991). In school-aged children and early adolescents, emotion-focused solutions, both generated and used, increase with age whereas problem-focused strategies are stable across ages (Compas et al., 1988). When different types of stressors are investigated, use of emotion-focused strategies increases across all stressors as children move from childhood to early adolescence (Band & Weisz, 1988; Compas et al., 1988). With events perceived as uncontrollable, children use more emotion-focused coping regardless of age (Altshuler & Ruble, 1988; Band & Weisz, 1988). Older children, however, produce more cognitive strategies for uncontrollable stressors. Making mental changes instead of behavioral ones in emotions is more evident in older children (Altshuler & Ruble, 1988). It is argued that problem-focused coping develops earlier due to the early development of problem-solving skills. It is further proposed that in early stages of development children may not be aware of their internal emotion states and that they can regulate their emotions. In addition to these factors, problem-solving behavior is more observable than regulation of internal states and can be easily modelled beginning from early ages. These are considered as possible reasons of early development of

problem-solving skills, and in turn, problem-focused coping (Band & Weisz, 1988; Compas et al., 1991). Band and Weisz (1988) further argues that, younger children can endorse problem-focused behavior effectively and adaptively. As they grow older, they replace ineffective behavioral strategies with emotion-focused coping behaviors.

1.6 Purpose of the Study

The aim of the present study is to test the goodness of fit hypothesis in an adolescent sample. The role of perceived controllability on coping behavior and symptom levels of adolescents will be examined. In light of the literature on adolescent coping and matching of coping and control appraisal, following hypotheses are proposed in the present study:

a) Coping strategies will vary as a function of type of problem.

b) There will be gender differences in use of certain coping strategies.

c) When events are perceived as controllable, more use of problem-focused (PF) coping and when events are uncontrollable, more emotion- focused (EF) coping is expected.

d) Symptom level will be higher when PF coping dominates EF coping for uncontrollable stressors or when EF coping dominates PF coping for controllable stressors.

CHAPTER II

METHOD

2.1 Subjects

Subjects who participated in this study were selected from three schools in Ankara. Instruments were administered to a total of 396 students who were attending 6th through 10th grades. 204 of students were female and 192 of them were male. Students' ages ranged between 11 and 18. Mean age of the total sample was 14.15 (SD = 1.82). One of the schools was a private school (Aykan Kolej). Students from this school represented high Socio-Economic Status (SES) and they were attending 6th through 10th grades. Other two schools were state schools (Türk-İş Blokları İlköğretim Okulu and Kılıçarslan Lisesi). These schools were selected in order to represent middle and low SES. Students from Türk-İş Blokları İlköğretim Okulu were attending 6th through 8th grades, and the students from Kılıçarslan Lisesi were attending 9th and 10th grades so that students of different grades be equivalent in terms of SES. Sociodemographic characteristics of the sample are presented in Table 2.1.

Table 2.1. Sociodemographic Characteristics of the Sample

	Aykan Kolej		Türk-İş Blokları İlköğretim Okulu		Kılıçarslan Lisesi	
	n	%	n	%	n	%
Gender						
Female	65	39.4	87	56.1	52	68.4
Male	100	60.6	68	43.9	24	31.6
Grade						
6	43	26.1	59	38.1	-	-
7	48	29.1	51	32.9	-	-
8	28	17.0	45	29.0	-	-
9	26	15.8	-	-	28	36.8
10	20	12.1	-	-	48	63.2
Mother's Education						
High school or less	77	47.2	137	90.1	64	84.2
University	86	52.8	15	9.9	12	15.8
Father's Education						
High school or less	46	28.2	119	79.3	47	61.8
University	117	71.8	31	20.7	29	38.2

	Min.	Max.	Mean	SD
Number of Siblings				
Aykan Kolej	0	4	.87	.69
Türk,İş BİO	0	5	1.77	1.09
Kılıçarslan L.	0	4	1.51	.93
Number of people living together				
Aykan Kolej	2	10	3.76	.89
Türk,İş BİO	2	8	4.64	1.09
Kılıçarslan L.	3	14	4.41	1.44

2.2 Instruments

Subjects were given a group of questionnaires. In the first part, they answered the demographic information questions. Demographic information questions included their sex, age, school, grade, parents' education and current job, number of people living together in the family, number of siblings, siblings' ages and education (See Appendix A).

After they completed the personal information questions on the cover page, they responded to the questionnaires that were randomly ordered. Among the questionnaires, the section in which the subjects defined a problem was followed by the Ways of Coping Scale (WOCS), since subjects were instructed to respond to the WOCS items regarding the problem they defined. These two parts were treated as one questionnaire and randomized among other questionnaires.

Subjects were asked to describe a stressful event they experienced in the last month. Definition of the stressor was followed by six questions assessing their appraisals about this event. The first two asked the impact and importance of the event on a 5-point Likert Scale ranging from 1 (very little) to 5 (very much). The next question assessed their perception of control "How much control did you have over the occurrence of this event?" and ranged between 1 (I had no control) and 5 (I could completely control). The last two questions asked the frequency of this type of event, (ie.) stability dimension, and the frequency of other problem events, (ie.) distinctiveness dimension, for the subject (See Appendix B). These dimensions were assessed on a 5-point Likert Scale ranging from 1 (very rare) to 5 (always). It must be noted that a score of 5 on distinctiveness dimension points to low distinctiveness whereas it indicates high stability on stability dimension.

2.2.1 The Ways of Coping Scale (WOCS)

WOCS was developed by Folkman and Lazarus (1980) as a 68-item self-report measure assessing a wide range of cognitive and behavioral strategies people use to manage the stressful episodes in their lives. Later, it was revised by Folkman and Lazarus (1985). In the revised version, "*yes-no*" response format was changed

into a 4-point Likert scale (0 = does not apply/or not used; 3 = used a great deal). By deleting or modifying redundant and unclear items or adding new ones, revised version of WOCS had a total of 66 items. Factor analysis of the instrument yielded eight scales. One of them included problem-solving, six of them included emotion-focused and one included both problem-focused and emotion-focused strategies.

Siva (1991) translated and adapted WOCS into Turkish. Addition of new items concerning fatalism and superstition resulted in a total of 74 items. Results of reliability and validity studies in the same research showed that the instrument had a Cronbach's alpha coefficient of .90. Uçman (1990) used the Turkish version of WOCS with an adult sample, Şahin, Rugancı, Taş, Kuyucu, and Sezgin (1992) with university students, and Tuğrul (1994) with late adolescents. Uçman (1990) found 8 factors that were similar to the original form. Both Siva (1991) and Şahin et al. (1992) studies yielded 7 factors but these factors had different structures in two studies. It is often cited in the related literature that WOCS shows different factor structures due to sample characteristics, problems for which WOCS was completed, and application of a shortened form of the instrument (Coyne et al., 1981; Folkman et al., 1986; Gamble, 1994; Parkes, 1984; Vitaliano et al., 1990). These differences in factor structures of WOCS is apparent in Turkish versions of the instrument, which were administered to different samples as well.

Şahin and Durak (1995) adapted a short of form WOCS in a sample of Turkish university students. Oral (1994) used the WOCS with adolescents and modified the two items, which were unclear to the subjects. She found eight factors,

explaining 34 % of the variance. Alpha coefficient of the scale was .87 in this study. This version of the instrument was used in the present research.

2.2.2 Adolescent Concerns Scale (ACS)

ACS was developed by Şahin and Şahin (cited in Banaz, 1992) to be used in a study with an adolescent sample. Instrument was used to measure the stress level of adolescents in the present study. Since it is a self-report measure, it assesses the perceived level of stress.

ACS is a 40-item measure. 30 items were taken from "Revised Form of Seriousness of Concerns Scale" (Violato, 1988) and 10 items were added as the result of a pilot study with Turkish adolescents by Şahin and Şahin (cited in Banaz, 1992). Results of factor analysis yielded four problem areas: (1) Social identity, (2) Regional and universal issues, (3) Interpersonal relations, and (4) Own future. Reliability coefficient was .86 and the scale was found to be associated with depression and anxiety. Response format is a 4-point Likert scale ranging between 0 (never) and 3 (always). The instrument was used by Banaz (1992) in a Turkish high-school student sample.

2.2.3 Beck Anxiety Inventory (BAI)

BAI is a 21-item self-report instrument assessing anxiety level and scored on a 4-point Likert scale ranging between 0 and 3 (0= never; 3= severely). It was developed by Beck, Epstein, Brown, and Steer (1988) to measure the severity of anxiety in clinical populations. BAI was reported to have an internal reliability

coefficient of .92 and test-retest reliability of .75 over one week. Researchers claimed that BAI significantly discriminated clinical anxiety from depression.

BAI was translated and adapted for Turkish population by Ulusoy, Şahin, and Erkmen (cited in Savaşır & Şahin,1997). Cronbach alpha was .93 and test-retest reliability coefficient was .57. Turkish version of BAI also discriminated between anxious diagnostic group and other diagnostic groups (e.g. depressive, mixed, and controls).

2.2.4 Children's Depression Inventory (CDI)

CDI was developed to measure the depressive symptoms in children (Kovacks, 1981). It is a self-report measure composed of 27 items. Each item has three statements among which the child/adolescent has to choose the best one fitting his/her emotional tone in the last two weeks. These are scored between 0-2. High scores point to high level of depression in children. Alpha coefficient was .86 and four-week test-retest reliability coefficient was .72. Studies conducted after the development of the scale yielded consistent results with these findings. In these studies, the scale was shown to be a reliable and consistent instrument. It was also found to be correlated with attributional style of children (Peterson & Seligman, 1984; Seligman et al., 1984; Smucker, Craighead, & Green, 1986).

Turkish version of CDI was translated and adapted by Öy (1991). Reliability studies showed that the instrument had a Cronbach alpha coefficient of .80 and one week test-retest reliability of .77.

2.3 Procedure

Group administration was performed by the researcher in Aykan Kolej and Kılıçarslan Lisesi. In Türk-İş Blokları İlköğretim Okulu, instruments were administered by the counsellor teacher as part of the school principal's instruction. Explanations and instructions on the cover page were read to the students. In addition, they were told that the order of the scales were randomized for each of the participants and asked to read the instructions on top of each scale carefully. Additional explanations were made when some points were unclear to the students. It took one regular class hour (40 minutes) for students to fill out the questionnaires.

CHAPTER III

RESULTS

3.1 Classification of Events

Stressful events reported by subjects were categorized according to their problem domains by the researcher. In order to obtain interrater reliability, events were classified by a clinical psychologist as well. The agreement rate between two raters was .86. The cases, upon which there was disagreement, were reexamined jointly by two raters and common decisions were reached. Frequencies and percentages of reported events according to problem domain are presented in Table 3.1. As a result of this classification, five broad categories of events emerged:

1. Family Problems: Relationships with parents and siblings, conflict in the family, health problems of family members and relatives, death in the family, financial difficulties, divorce, moving to a new place, and moving away or joining by a family member were included under this category.
2. School Problems: This group consisted of academic underachievement, relationships with teachers and administrators, and test anxiety.

3. Problems with Peers: These types of events included conflict with friends, relationships with the opposite sex, acceptance to group, bullying, loneliness, friends' health problems, and death of a friend.
4. Problems Related to Self: Own future concerns in terms of educational, financial, occupational, and social issues, fear of death, health problems, accident, natural disasters, extracurricular activities, and problems related to achieving independence and identity development were categorized under this group.
5. Unspecified: Events that are positive in nature were within this group. When more than one event was reported, it was also included into this category.

Table 3.1 Frequencies and Percentages of Type of Reported Events

Event Groups	n	%
Family	107	27
School	82	20.7
Peers	74	18.7
Self	36	9.1
Unspecified	97	24.5
TOTAL	396	100

3.2 Sex Differences for the Variables of the Study

In order to examine sex differences for several variables in the study, a series of statistical comparisons were employed. Depression, anxiety, and stress levels of females and males as well as the frequency with which they reported each event category were compared.

3.2.1 Sex Differences for Depression Scores

In order to test sex differences in depression scores as measured by Child Depression Inventory, independent samples t-test was performed. Results of this analysis yielded no significant differences between males and females in terms of their depression levels, t (394) = .38, n.s.

3.2.2 Sex Differences for Anxiety Scores

Independent samples t-test was conducted to examine the sex differences in anxiety levels as measured by Beck Anxiety Inventory. It was found that females had significantly higher anxiety levels (X = 13.57) than males (X = 9.79), t (394) = 3.74, $p < .001$.

3.2.3 Sex Differences for Stress Level

Results of independent samples t-test revealed a significant sex difference in the overall stress levels as measured by Adolescent Concerns Scale. Stress level of females (X = 46.78) was found to be significantly higher than males (X = 41.08), t (394) = 2.83, $p < .01$.

3.2.4 Sex Differences for Stressor Events

As can be seen in Table 3.2, there are sex differences in terms of the most frequently reported problem areas. The most frequently reported problem domain for females is peer problems, whereas it is family domain for males. Problems related to self have the lowest frequency for both sexes.

Table 3.2 The Order of the Most Frequently Reported Problem Domains by Both Sexes

Female		Male	
Event Group	%	Event Group	%
1. Peers	27	1. Family	31.8
2. Family	22.5	2. Unspecified	27.1
3. Unspecified	22.1	3. School	21.9
4. School	19.6	4. Peers	9.9
5. Self	8.8	5. Self	9.4

3.3 Differences in Demographic Variables and Formation of SES Groups

Low and high SES groups were formed on the basis of school. Aykan Kolej represented high SES, Türk-İş Blokları İlköğretim Okulu and Kılıçarslan Lisesi were referred as the low SES group. When these two groups were compared in terms of mother's education ($\underline{t}$ [347] = 15.487) father's education ($\underline{t}$ [344] = 12.381), number of siblings ($\underline{t}$ [392] = -9.560), and family size ($\underline{t}$ [385] = -7.418), two groups were significantly different from each other in terms of all these demographic variables (all $\underline{p}_s < .001$). According to these differences, both mothers and fathers of subjects in the low SES group had lower education levels (X_{mother} = 3.98, X_{father} = 4.60) than those in the high SES group (X_{mother} = 5.48, X_{father} = 5.68) as expected. Number of people living together (ie.) family size, was greater in the low SES group (X = 4.56) than the high SES group (X = 3.76). As expected, subjects in the high SES group had fewer siblings (X = .87) than those in the low SES group (X = 1.68).

3.4 Factor Analysis of Ways of Coping Scale (WOCS)

WOCS was subjected to factor analysis before further statistical analyses were conducted. Items were subjected to varimax rotation. Although there were 22

factors which had eigenvalues of greater than 1, a four-factor solution seemed appropriate when the scree-plot was taken into consideration. According to the contents of these factors, they were named as "Approach Coping", "Avoidant Coping", "Fatalism", and "Seeking Social Support" respectively. Factor structures and loadings are presented in Table 3.3. These four factors totally explained 31.14 % of the total variance. In order to be included under a factor, items had to meet two criteria: (i) an item loading of .30 or higher, (ii) if an item had a loading of .30 or higher on more than one factor, the highest loading was taken into account. As a result of these inclusion criteria, the first factor, which was named as Approach Coping had 25 items, explaining the 12.33 % of the variance. The alpha coefficient for this subscale was .91 and the item-total correlations ranged between .35 and .61. Avoidant Coping, the second factor, included 12 items and had an alpha coefficient of .81. Item-total correlations ranged between .28 and .60. This factor explained 8.94 % of the total variance. 12 items were included under the third factor that was named as Fatalism. The alpha coefficient for this subscale was .76, and it explained 5.44% of the variance. Item-total correlations ranged between .23 and .58. The fourth factor, Seeking Social Support, had 7 items, explaining 4.42 % of the variance. This subscale had an alpha coefficient of .64 and item-total correlations ranged between .23 and .52. Items 2, 25, 33, which were negatively loaded on this factor were reversed before further analyses. Items 1, 5, 7, 9, 12, 16, 17, 21, 24, 32, 37, 38, 40, 42, 51, 54, 72, with communalities less than .25 were deleted after Principal Component Analysis. Item 28, which had a factor loading of less than .30 under all factors was also deleted.

Table 3.3 Factor Structure of Ways of Coping Scale

	Factor Loadings			
	F1	**F2**	**F3**	**F4**
	Approach Coping	Avoidant Coping	Fatalism	Seek. Soc. Sup.
	α = .91	α = .81	A = .76	α = .64
Item no	% Var. = 12.33	% Var. = 8.94	% Var. = 5.44	% Var. = 4.42
WOCS 4	**.52**			
WOCS 8	**.50**			
WOCS 10	**.64**			
WOCS 11	**.40**			
WOCS 13	**.63**			
WOCS 15	**.53**			
WOCS 19	**.53**			
WOCS 22	**.47**			
WOCS 31	**.67**			
WOCS 35	**.48**			
WOCS 39	**.56**			
WOCS 41	**.50**			
WOCS 44	**.66**			
WOCS 45	**.51**			
WOCS 48	**.61**			
WOCS 49	**.56**			
WOCS 50	**.42**			
WOCS 52	**.58**			
WOCS 58	**.53**			
WOCS 65	**.55**			
WOCS 68	**.54**			
WOCS 69	**.45**			
WOCS 70	**.56**			
WOCS 73	**.65**			
WOCS 74	**.54**			
WOCS 3		**.49**		
WOCS 20		**.73**		
WOCS 27		**.38**		
WOCS 29		**.59**		
WOCS 36		**.48**		
WOCS 46		**.54**		
WOCS 53		**.51**		
WOCS 56		**.50**		
WOCS 60		**.43**		
WOCS 63		**.62**		
WOCS 66		**.56**		
WOCS 71		**.58**		
WOCS 18			**.40**	
WOCS 23			**.40**	
WOCS 26			**.32**	
WOCS 34			**.47**	
WOCS 43			**.51**	

Table 3.3 (Cont.)

WOCS 47	**.40**	
WOCS 55	**.57**	
WOCS 57	**.60**	
WOCS 59	**.42**	
WOCS 61	**.49**	
WOCS 64	**.65**	
WOCS 67	**.61**	
WOCS 2		**-.52**
WOCS 6		**.46**
WOCS 14		**.38**
WOCS 25		**-.66**
WOCS 30		**.69**
WOCS 33		**-.66**
WOCS 62		**.46**
Excluded Items		
WOCS 1		
WOCS 5		
WOCS 7		
WOCS 9		
WOCS 12		
WOCS 16		
WOCS 17		
WOCS 21		
WOCS 24		
WOCS 28		
WOCS 32		
WOCS 37		
WOCS 38		
WOCS 40		
WOCS 42		
WOCS 51		
WOCS 54		
WOCS 72		

3.5 Classification of Coping Strategies

Although factor analysis of coping inventory yielded four coping types, these four factors were grouped under three categories before further analyses. As a result of this categorization, the first factor, Approach Coping and the last factor, Seeking Social Support, remained the same. Since the second and third factors, Avoidant Coping and Fatalism, were both non-productive and emotion-focused in nature, they were treated as one type on the following analyses. Thus, in the remaining sections, Approach Coping will be mentioned as Problem-Focused Coping, Avoidant Coping and Fatalism as Emotion-Focused Coping. Seeking Social Support will remain the same as the third coping factor.

In the following analyses, relative proportions of each coping type were used. For this purpose, each coping type was calculated by dividing the total scores on each factor by the total score on all factors. For example, problem-focused coping was calculated by dividing the sum of scores on problem-focused items by the total scores on problem-focused coping, emotion-focused coping, and seeking social support. For the calculation of emotion-focused coping, sum of scores on both avoidant coping and fatalism items was divided by the sum of scores on three coping type items.

3.6 Roles of Sex, Type of Problem, and Perceived Control in the Selection of Coping Strategies

As stated in the hypotheses, selection of coping strategies is expected to be affected by sex, type of problem, and perceived controllability of the problem event. In order to test these hypotheses, a 2 (sex) x 4 (type of problem) x 2 (controllability) x 3 (type of coping) ANCOVA with repeated measures on the last factor was conducted. Age and SES was treated as covariates. Among problem types, Unspecified category was excluded in the analysis. Therefore, type of problem variable had four levels. Two controllability groups (low and high) were formed by a median-split. The median score for controllability variable was 3. Those having a score less than 3 formed the low control group ($\bar{X}$ = 1.39) and those with scores higher than 3 formed the high control group ($\bar{X}$ = 4.32). Those having the median score of 3 were omitted.

According to results, as can be seen in Table 3.4, there was a significant four-way interaction, Coping x Sex x Problem Type x Controllability; F (3, 191) = 3.87, $p < .05$.). This interaction effect was further analysed by using simple effect analyses.

Table 3.4 Analysis of Covariance for Coping, Controllability, Type of Event, and Sex; Controlled for Age and SES Factors

Source of Variation	df	MS	F
Coping	1	.001	.068
Coping x Age	1	.000	.026
Coping x SES	1	.005	.301
Coping x Sex	1	.002	.098
Coping x Problem	3	.009	.540
Coping x Control	1	.056	3.387
Coping x Sex x Problem	3	.040	2.398
Coping x Sex x Control	1	.010	.633
Coping x Problem x Control	3	.020	1.250
Coping x Sex x Problem x Control	3	.064	3.868*
Error	191	.020	-

* $p < .05$

Simple effect analyses of this 4-way interaction revealed 6 significant two-way interactions. Mean scores on each coping factor for each group separately are displayed in Table 3.5.

The first significant two-way interaction found was the 2 (controllability) x 3 (type of coping) ANOVA with repeated measures on the last factor, which revealed significant controllability perception differences for females who reported family problems, F (1, 32) = 8.03, $p < .01$. First, females who reported family problems endorsed more emotion-focused coping strategies when they had high controllability perception (X = .28) as compared to the situation when they had low controllability perception (X = .21). Second, females in this group utilized more seeking social support when they had low controllability perception (X = .39) than

when they had high controllability perception (X = .25). Tukey post hoc comparisons revealed that when females in this group had high control perception, they used problem-focused coping (X = .47) more than seeking social support (X = .25). Moreover, when they had low control perception, they employed problem-focused strategies (X = .40) and seeking social support (X = .39) more than emotion-focused strategies (X = .21) .

2 (controllability) x 3 (type of coping) ANOVA with repeated measures on the last factor also revealed significant controllability perception differences for males with peer problems, F (1, 9) = 6.70, $p < .05$. Among males who reported peer problems, those with high control perception used more problem-focused strategies (X = .49) than those with low control perception (X = .31). Results of Tukey post hoc comparisons revealed that males in this group endorsed problem-focused strategies (X = .49) more than emotion-focused strategies (X = .27) and seeking social support (X = .25).

The third significant two-way interaction was observed for 2 (sex) x 3 (type of coping) ANOVA with repeated measures on the last factor, which revealed significant sex differences for subjects with high perception of control and who reported peer problems, F (1, 20) = 11.41, $p < .01$. Males with high controllability perception and who reported peer problems employed more problem-focused strategies (X = .49) than females with high control perception and who reported peer problems (X = .40). Males in this group used problem-focused coping (X = .49) more than emotion-focused coping (X = .27) and seeking social support (X = .25). Females with high perception of control, on the other hand, endorsed more

seeking social support strategies (X = .38) than males with high control perception and who reported peer problems (X = .25). Moreover, females in this group utilized problem-focused coping (X = .40) and seeking social support (X = .38) more than emotion-focused coping (X = .22).

Regarding the fourth significant two-way interaction, 2 (sex) x 3 (type of coping) ANOVA with repeated measures on the last factor revealed significant sex differences for subjects with high perception of control and who reported family problems as well, F (1, 26) = 10.10, $p < .01$. Females with high perception of control and who reported family problems utilized more problem-focused strategies (X = .47) than males with high perception of control and who reported family problems (X = .35). On the other hand, males in this group used more seeking social support (X = .38) than females in the same group (X = .25). According to the results of Tukey post hoc comparisons, females in this group used problem-focused coping (X = .47) more than they use emotion-focused coping (X = .28) and seeking social support (X = .25).

The final two significant two-way interactions were observed for 4 (type of problem) x 3 (type of coping) ANOVA with repeated measures on the last factor, which revealed significant problem type differences for females, F (3, 34) = 3.47, $p < .05$, and males with high controllability perception, F (3, 39) = 5.45, $p < .01$. Results of multiple comparisons with Tukey HSD revealed that among females with high control perception, those who reported peer problems (X = .38) used more seeking social support than those who reported family problems (X = .25). Females with high perception of control used problem-focused coping (PF) more than

emotion-focused coping (EF) for family (X_{PF} = .47, X_{EF} = .28), school (X_{PF} = .41, X_{EF} = .24), peer (X_{PF} = .40, X_{EF} = .22), and self-related (X_{PF} = .41, X_{EF} = .22) problems. Moreover, they used PF coping (X = .47) more than seeking social support (X = .25) for family problems. For peer problems, however, females with high perception of control utilized seeking social support (X = .38) more than EF coping (X = .22).

According to the results of the multiple comparisons with Tukey HSD conducted for males with high control perception indicated that among them, those who experienced peer problems (X = .49) used more problem-focused strategies than those who experienced family (X = .35) and school problems (X = .39). Moreover, males with high control perception and who had family problems (X = .27) endorsed more emotion-focused coping as compared to those with high control perception and who had self-related problems (X = .15). Among males with high controllability perception, those who reported family problems (X = .38) and self-related problems (X = .45) used more seeking social support as compared those who reported peer problems (X = .25). Males in this group used PF coping more than EF coping for school (X_{PF} = .39, X_{EF} = .26), peer (X_{PF} = .49, X_{EF} = .27), and self-related problems (X_{PF} = .40, X_{EF} = .15). Moreover, they used PF coping more than seeking social support (SSS) for school (X_{PF} = .39, X_{SSS} = .35) and peer problems(X_{PF} = .49, X_{SSS} = .25). Finally males with high control perception utilized more seeking social support than EF coping for family (X_{SSS} = .38, X_{EF} = .27), school (X_{SSS} = .35, X_{EF} = .26), and self-related problems (X_{SSS} = .45, X_{EF} = .15).

Table 3.5 Group Means of Coping Factors by Type of Problem, Sex, and Controllability Variables

		Family		School		Peers		Self	
		F	M	F	M	F	M	F	M
C_1	Low control	.40	.40	.40	.41	.39	.31	.38	.39
	High control	.47	.35	.41	.39	.40	.49	.41	.40
C_2	Low control	.21	.24	.19	.25	.21	.32	.25	.25
	High control	.28	.27	.24	.26	.22	.27	.22	.15
C_3	Low control	.39	.37	.40	.34	.39	.37	.38	.37
	High control	.25	.38	.35	.35	.38	.25	.37	.45

F: Female; M: Male

C_1: Problem-Focused Coping; C_2: Emotion-Focused Coping; C_3: Seeking Social Support

3.7 Means, Standard Deviations, and Ranges of the Variables Used in the Study

In order to present a general information about the variables used in the study, some of the central tendency and dispersion measures were computed. Mean scores as well as standard deviations and ranges of the variables are presented in Table 3.6.

Table 3.6 Means, Standard Deviations, and Ranges of the Variables

	Mean	Std. Dev.	Min.	Max.
Influence	3.84	1.24	1	5
Importance	4.11	1.12	1	5
Controllability	2.62	1.29	1	5
Stability	2.39	1.32	1	5
Distinctiveness	2.59	1.13	1	5
Anxiety	11.74	10.21	0	55
Depression	13.10	7.40	0	37
Overall Stress	44.02	20.20	0	98
Problem-Focused Coping$_a$	1.77	.55	0	3
Emotion-Focused Coping$_a$	1.10	.45	0	3
Seeking Social Support$_a$	1.63	.56	0	3
Problem-Focused Coping$_b$	.39	.09	0	.69
Emotion-Focused Coping$_b$	.24	.09	0	.47
Seeking Social Support$_b$	.37	.12	0	1.0

$_a$: Raw scores of coping types
$_b$: Relative scores of coping types

3.8 Correlations among the Variables in the Study

Pearson correlations for the variables used in the study were computed. A matrix of the correlations among the variables is presented in Table 3.7.

As can be seen in the correlation matrix, overall stress level is significantly and positively correlated with depression ($r = .25$, $p < .01$) and anxiety ($r = .33$, $p < .01$) scores. As expected, there is a significant positive correlation between anxiety and depression scores ($r = .38$, $p < .01$). Significant correlations between factors of coping and anxiety, depression, and stress levels are present. Emotion-focused coping significantly and positively correlates with anxiety ($r = .28$, $p < .01$), depression ($r = .50$, $p < .01$), and overall stress ($r = .23$, $p < .01$) separately. On the other hand, seeking social support correlated negatively with anxiety, depression, and overall stress ($r_s = -.19$, $-.17$, & $-.23$ respectively, $p_s < .01$). Again, consistent

with expectations, problem-focused coping is negatively correlated with depression (r = -.25, p < .01). Among coping factors, seeking social support has significant negative correlations with both problem-focused coping and emotion-focused coping (r_s = -.67 & -.62 respectively, p_s < .01). Problem-focused coping and emotion-focused coping correlates negatively (r = -.17, p < .01). When correlations among appraisals, anxiety, and stress levels are examined, all of the appraisals except controllability -influence, importance, stability, and distinctiveness are significantly and positively correlated with anxiety (r_s = .24, .14, .18, & .35 respectively, p_s < .01) and stress (r_s = .19, .15, .17, & .29 respectively, p_s < .01). Among appraisals, influence, stability, and distinctiveness are significantly and positively correlated with depression (r_s = .19, .33, & .36 respectively, p_s < .01). In terms of the correlations among appraisals, distinctiveness is positively correlated with all appraisals other than controllability - influence, importance, and stability (r_s = . 26, .17, & .36 respectively, p_s < .01). There is a significant positive correlation between influence and importance appraisals (r = .66, p < .01). Controllability appraisal is not significantly correlated with any of the variables in the correlation matrix. Socioeconomic status (SES) is positively correlated with anxiety (r = .14, p < .01). In the low SES group, anxiety symptoms increase, because the low SES group is taken as the second group in the formation of these groups.

Table 3.7 Correlation Matrix of the Variables Used in the Study

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1		-.051	-.205**	-.164**	-.169**	.065	.006	-.160**	-.185**	.019	-.141**	-.094	.099*	.001
2			.033	.071	.031	-.154**	-.088	.075	.076	-.015	.224**	.038	-.020	-.015
3				.112*	.044	-.024	-.063	.037	.142**	.061	.043	-.019	.085	-.048
4					.657**	.003	.073	.265**	.243**	.192**	.195**	.081	.122*	-.155**
5						-.017	.038	.171**	.145**	.094	.155**	.170**	.089	-.202**
6							.000	-.035	-.022	-.063	-.051	.085	.001	-.068
7								.356**	.185**	.335**	.171**	-.087	.282**	-.144**
8									.354**	.361**	.287**	-.022	.296**	-.207**
9										.385**	.326**	-.016	.278**	-.195**
10											.249**	-.253**	.503**	-.174**
11												.063	.235**	-.226**
12													-.166**	-.674**
13														-.616**
14														

** $p < .01$, * $p < .05$

1) Sex; 2) Age; 3) SES; 4) Influence; 5) Importance; 6) Controllability; 7) Stability; 8) Distinctiveness; 9) Anxiety; 10) Depression; 11) Overall Stress; 12) Problem-Focused Coping; 13) Emotion-Focused Coping; 14) Seeking Social Support

3.9 Multiple Regression Analysis

Hierarchical regression analysis was conducted in order to test the goodness of fit hypothesis, the fourth hypothesis, in the present study. Before analysis, the fifth category of stressor events (Unspecified) was excluded since this category included positive events as well. Goodness of fit was tested only for negative events and the predictive values of coping and perceived controllability interaction in symptom levels were investigated. A new variable named dominant coping was created by subtracting emotion-focused coping scores from the problem-focused coping scores. Therefore, higher dominant coping scores pointed to using greater amounts of problem-focused coping as compared to emotion-focused coping. The purpose of creating this variable was to measure contributions of either type of coping relatively. Absolute amounts were not used. Two regression analyses were carried out for depression and anxiety symptoms separately.

In the first regression analysis, depression was the predicted variable. Predictors were entered in three steps. In all steps, enter method was employed. The first block consisted of variables that had significant correlations with depression and those that had to be controlled for. Attributions related to stressor event other than controllability - Influence, Importance, Stability, and Distinctiveness; Age, Sex, SES, Anxiety and Stress were entered in the first block. The second block included Dominant Coping and Controllability variables. In the last step, the interaction term for Dominant Coping and Controllability was entered.

Results of this regression analysis are presented in Table 3.8. The first block explained 29 % of the total variance, F (9, 277) = 12.56, p < .001. With the addition of the second block, explained variance raised to 37 %, F (11, 275) = 14.45, p < .001. Addition of the third block did not contribute to the variance explained, F (12, 274) = 13.21, p < .001. On the final step, among the predictors Distinctiveness (t [277] = 2.932, p < .005), Anxiety (t [277] = 3.711, p < .001), and Dominant Coping (t [275] = -3.100, p < .005) significantly predicted depression symptomatology. It is important that this significance emerged even after the variance accounted for by many variables (ie., the variables entered on the first step) were excluded.

Table 3.8 Predictors of Depression

Variable	Beta	R^2 Change	t
Step 1		.29	
Age	-.056		-1.088
Sex	.078		1.530
SES	-.003		-.065
Influence	.109		1.727
Importance	.012		.204
Stability	.104		1.909
Distinctiveness	.170		2.932*
Stress	.084		1.567
Anxiety	.207		3.711**
Step 2		.08	
Controllability	-.040		-.518
Dominant Coping	-.320		-3.100*
Step 3		-	
Dom. Cop. x Controllability	.029		.250

** p < .001, * p < .005

Note: Only final step values are reported.

In the second analysis, anxiety was the predicted variable and regression was conducted in three steps with enter method as in the first analysis. Blocks included the same variables except Depression replacing Anxiety in the first block. Variables in the first block explained 28.7 % of the total variance, F (9, 277) = 12. 40, $p < .001$. By the addition of the second block explained variance increased to 29.1 %, F (11, 275) = 10.26, $p < .001$. The addition of the third block did not have a contribution in terms of the total variance explained, F (12, 274) = 9.38, $p < .001$. On the final step, among the predictors Influence (t [277] = 2.087, $p < .05$), Distinctiveness (t [277] = 2.826 $p < .05$) , Stress (t [277] = 2.217, $p < .05$), and Depression (t [275] = 3.711, $p < .001$) significantly predicted anxiety symptomatology. After the variance accounted for by these control variables were excluded, neither Controllability nor Dominant Coping predicted Anxiety scores significantly. Results of this regression analysis can be seen in Table 3.9.

Table 3.9 Predictors of Anxiety

Variable	Beta	R^2 Change	t
Step 1		.287	
Age	.062		1.141
Sex	-.055		-1.208
SES	.096		1.794
Influence	.139		2.087*
Importance	-.013		-.210
Stability	.057		.978
Distinctiveness	.174		2.826*
Stress	.125		2.217*
Depression	.231		3.711**
Step 2		.004	
Controllability	.051		.615
Dominant Coping	-.036		-.324
Step 3		-	
Dom. Cop. X Controllability	-.023		-.184

** $p < .001$, * $p < .05$

Note: Only final step values are reported.

CHAPTER IV

DISCUSSION

In the present study, main purpose was to investigate the effect of perceived control about stressor events on coping strategies and symptom levels of adolescents. Factors, which may affect this relationship, were included in the analyses as well. Among these factors were type of problem, sex, stress level, and other situational appraisals about the event – influence, importance, stability, and distinctiveness of the stressor. Age range in the present study covered early and middle adolescence.

Following the discussion of the results of the present investigation in detail, certain implications and limitations as well as suggestions for future research will be mentioned.

4.1 Type of Problems

Stressor events reported in the present investigation accumulated under five problem domains – family, school, peers, self, and the unspecified. Under the last

category were included positive events and multiple events reported by subjects. This category was excluded in the statistical analyses. Problem domains emerged in the present study are consistent with major concerns identified in studies conducted with early and middle adolescents as family, school, peers, relationships with the opposite sex and achievement issues (e.g. Frydenberg & Lewis, 1994; Halstead et al., 1993; Stark et al., 1989). Although event categories are slightly different from those reported in the literature, this difference disappears when content of the categories are taken into account. For example, problems in relationships with the opposite sex are included under the peers domain in the present study. Similarly, achievement issues are classified under the self-related problems.

When the frequency of the major problem areas is examined across the whole sample, it is seen that family domain is in the first order. Self-related problems are reported at the lowest frequency by adolescents. Sex differences are present in the reported frequency of problem events. Females most frequently report peer problems whereas males report family-related problems most frequently. Self-related problems receive the lowest frequency by both sexes. It must be noted that the fifth category that was not included in the analyses was in the first three for both the whole sample, and for males and females separately. The finding that subjects reported positive events with a high frequency can be attributed to the wording of instruction (See Appendix B). In the first sentence of the instruction subjects are asked to describe an event that had an impact upon them and one that is important for them. Although, later in the instruction it is mentioned that this event may be one that is problem for them, one can argue that the first few words have been more influential in terms of subjects' understanding of the instruction.

4.2 Factors of the Coping Instrument

Coping was assessed with Ways of Coping Scale and the instrument was subjected to factor analysis. Subjects filled the coping questionnaire in response to a self-defined stressful event they experienced in the previous month. Factor analysis yielded four factors and these factors were named as Approach Coping, Avoidant Coping, Fatalism, and Seeking Social Support. These four subscales had sufficient reliability coefficients.

Items included in Approach Coping subscale pointed to strategies that focused on the problem. Among these strategies were planful problem solving behaviors (e.g. "I try to analyze the problem in order to understand it better", "I make a plan of action and follow it", "I come up with a couple of different solutions to the problem", "I know what has to be done, so I double my efforts to make things work", "I stand my ground and fight for what I want"), positive reappraisal (e.g. "I am changing or growing as a person in a good way", "I rediscover what is important in life", "I bargain or compromise to get something positive from the situation", "I try to look on the bright side of things", "I came out of the experience better than when I went in"), self-controlling efforts (e.g. "I try not to act too hastily or follow my first hunch", "I go over in my mind what I will say or do", "I try to think calmly and not to get angry"). The second subscale, Avoidant Coping, included wishful-thinking strategies such as "I hope a miracle will happen", "I wish that I could change what had happened", and "I wish I was a stronger person", self-blame such as "I realize that I brought the problem on myself" and "I criticize or lecture

myself", escape and avoidance behaviors such as "I try to delay my decision about the event", "I see that I can do nothing about it, so I accept", and "I believe I can do nothing about the situation". Fatalism subscale included items such as "I pray and seek help from God", "I believe the situation will go its way", and "I believe in faith and that this will not change". Under the last factor, Seeking Social Support, help-seeking behaviors like "I talk to someone to find out about the situation", "I accept sympathy and understanding from someone", and "I talk to someone about how I am feeling" were included. Items "I keep others from knowing how bad things are", "I don't want anybody to know that I have a problem", and "I prefer not talking to anyone about the situation" were negatively loaded on this factor.

Factor structure obtained in the present study was quite different from those obtained in the relevant literature. Factor analysis of Ways of Coping Scale (WOCS) usually resulted in seven (Coyne et al., 1981) or eight subscales (Folkman et al., 1986; Folkman & Lazarus, 1985). Revised versions were also developed. Vitaliano, Maiuro, Russo, and Becker (1987) obtained five factors of the scale in their shortened form. Turkish version used by Oral (1994) was used in the present study. She found 8 factors of the scale as well. However, in all of this cited literature it is emphasized that factor structure of WOCS is sensitive to nature of the stressor and sample characteristics. The differences in the content of the subscales obtained in these studies provide further evidence for this sensitivity issue. Although WOCS was used in early adolescent populations, it can be agued that a 74-item instrument can be too long and some of the items may be difficult to understand for a 11 or 12-year old adolescent. A shortened version covering all coping factors with fewer items may be more appropriate for this age group.

In studies that use WOCS, subscales were either used separately or grouped under categories, depending on the purpose of the investigation. Folkman and Lazarus (1985) categorized coping strategies under three categories - problem-focused strategies, emotion-focused strategies, and seeking social support. The final category was regarded as the mixed type that covered both problem-focused and emotion-focused strategies. Coping factors in the present study are consistent with this categorization. Approach Coping consists of various strategies that focus on the problem as a common aspect. Planful problem-solving, positive reappraisal, and self-controlling behaviors all approach the problem. Positive reappraisal is taken as an emotion-focused strategy by Folkman and Lazarus (1985). However, there is empirical evidence for a high correlation between problem-focused coping and positive reappraisal as well (Folkman et al., 1986). Therefore, all strategies under Approach Coping factor are taken as problem-focused strategies in the present investigation. Avoidant Coping includes wishful-thinking, self-blame, and escape-avoidance; and Fatalism includes fatalistic beliefs and passivity. These two factors are non-productive and are grouped as one type, emotion-focused coping, in the present analyses. Following the relevant literature, Seeking Social Support was regarded as the mixed type and was not included in the regression analyses conducted for testing the goodness of fit hypothesis. In other analyses, however, it was included as a coping type.

4.3 Correlations among variables

Consistent with expectations, emotion-focused coping was positively related to anxiety and depressive symptoms. More use of emotion-focused strategies led to

higher levels of anxiety and depression levels. Again, a decrease in the use of these strategies resulted in an increase in these symptoms as well. The association between problem-focused coping and symptoms was negative. However, this association was present only for depression. As problem-focused coping was used at a greater extent, a decrease in depression level was observed. On the other hand, depressive symptoms increased as problem-focused strategies were used less. This relationship between depressive symptoms and problem-focused or emotion-focused coping strategies is consistent with literature (Coyne et al., 1981; Vitaliano et al., 1987).

Interestingly, perception of control was not significantly associated with any of the variables in the study. It was related neither with symptoms nor with other appraisals about the event. This finding, together with other findings of concern, will be discussed later in this chapter.

4.4 Coping Strategies as a Function of Sex, Type of Problem, and Perceived Control

Sex, type of problem, and controllability perception did not have a main effect on coping strategies of adolescents. A joint function of these variables was revealed in the four-way interaction effect on coping types. According to results of this analysis, for events they perceived as controllable, females used problem-focused strategies more than emotion-focused strategies for all problem domains and males also showed the same trend for all except family domain. Consistent with expectations, it can be argued that in almost all of the problem domains, adolescents

used problem-focused strategies more than emotion-focused strategies when they had high perception of control.

When coping strategies of female and male adolescents in response to the problems they most frequently reported were examined, it was found that they used seeking social support more than emotion-focused coping when they had high perception of control. In other words, females used seeking social support more than emotion-focused coping for peer problems they perceived as controllable, and males for family problems they perceived as controllable. It can be concluded that both males and females used seeking social support more than emotion-focused strategies in response to the most frequently reported problem areas for which they had high perception control.

It seems that both females and males use problem-focused strategies and seeking social support more than emotion-focused strategies in response to controllable events they reported most frequently. One can argue that adolescents use seeking social support for controllable stressors since it includes active behaviors. In this respect, the same trend for seeking social support and problem-focused coping can be expected.

For uncontrollable events, more use of emotion-focused strategies was expected. Contrary to this expectation was females' use of emotion-focused strategies at a greater extent when they had high perceived control for family problems.

In conclusion, expectations for use of problem-focused strategies were generally supported for controllable events. For uncontrollable events, however, use of emotion-focused strategies was not consistent with expectations.

4.5 Testing the Goodness of Fit Hypothesis

According to the regression analysis, variables that predicted depression were distinctiveness of the stressor event, anxiety, and dominant coping. As the event becomes less distinctive, depression symptoms increase. In other words, when adolescents experienced various problems other than the one they reported (i.e. low distinctiveness of the reported stressor), they scored high on depression symptoms. Consistent with expectations, the relationship between anxiety and depressive symptoms is significantly positive. Both of these symptomatologies increase and decrease in the same direction. When problem-focused strategies were used at a greater extent as compared to emotion-focused strategies, depressive symptoms decreased. As a result of this negative relationship between dominant coping and depressive symptoms, it is revealed that domination of emotion-focused coping over problem-focused strategies led to higher rate of depressive symptoms. Interaction of dominant coping and controllability perception did not predict depression.

Regression analysis was repeated for anxiety symptomatology with the same sets of variables in the same order. Variables that predicted anxiety were influence, distinctiveness, stress and depression. The more the adolescents were influenced by the stressor event, the more they had anxiety symptoms. Distinctiveness of the

stressful encounter showed the same relationship with anxiety as in the case of depression. As the event was perceived as more distinctive among other stressors, anxiety symptoms were reported at a lower rate. That is, when the adolescents did not frequently experience stressors other than the reported one, they had less anxiety symptoms. Consistent with expectations, anxiety level was positively associated with stress level. Increase in the level of stress resulted in more anxiety symptoms. As stress level decreased, anxiety symptoms were reported less. Neither the dominant coping nor the interaction of dominant coping and controllability predicted anxiety.

Goodness of fit hypothesis was not supported in the present study. Contrary to expectations, domination of problem-focused strategies over emotion-focused strategies for controllable events was not found as predicting depression level. The same was true when the scenario was reversed. Relatively more use of emotion-focused strategies for controllable stressors led to an increase in neither depression nor anxiety symptoms.

As stated before, perception of control did not significantly correlate with any of the variables in the study. This trend of the variable was evident in the regression analyses as well. It did not have a significant interaction with coping type. This raises a question about the assessment of this construct. A possible explanation can be that subjects did not adequately understand the question "How much control did you have over the occurrence of this event?" In literature, when perceived controllability did not lead to direct actions for solving the problem, this

was related to the wording of the question assessing controllability. It was argued that control over the resolution rather than the occurrence of the event would lead to direct efforts targeted at the problem (Stone & Neale, 1984). On the other hand, assessment of control perception with the question used in the present study is common in the relevant literature.

In the relevant literature, a distinction is made among major life events, daily hassles, and chronic stress resources. Such a distinction was not made in the present study. Adolescents reported a stressful event and these events were categorized according to problem domains. Whether they were major life events or daily hassles were not considered. However, it is documented in literature that goodness of fit hypothesis is supported for major life events but not for daily hassles (Forsythe & Compas, 1987). Lack of such a distinction between stressors may have confounded the results.

Some other points need consideration as well. Coping responses were assessed in response to self-defined stressors rather than to structured life events questionnaires that include both major life events and daily hassles (Compas, Davis, Forsythe, & Wagner, 1987) as well as negative and positive events (Swearingen & Cohen, 1985). Effects of controllability perception were investigated only for negative events in the present study Lack of a distinction between major events and daily hassles was discussed before. For negative and positive events, relevant literature suggests a distinction made between negative and positive events as in the present study since different processes operate for the effects perceived control over

positive and negative events in stress reactions and symptoms (Cohen, Burt, & Bjorck, 1987; Rowlison & Felner, 1988; Swearingen & Cohen, 1985). A final point in the assessment of control is that perception of control was assessed as a situational factor. Locus of control, which is a dispositional characteristic (Nelson & Cohen, 1983) is not within the scope of the present study.

4.6 Implications and Limitations of the Present Study

Comorbidity and specificity of anxiety and depression are important issues that are often documented in literature. They are viewed as the same disorder with some quantitative differences between them (Lipman, 1982; Stavrakaki & Vargo, 1986). That the domination of problem-focused strategies over emotion-focused strategies predicts depression symptomatology but not anxiety symptomatology is consistent with literature (Glyshaw et al., 1989) and provides evidence for discriminative validity of these two symptomatologies.

Goodness of fit was not supported in the present investigation. However, it must be noted that a rather conservative approach was evident in the regression analyses. Relatively more use of problem-focused strategies as compared to emotion-focused strategies predicted depressive symptoms even after the variance explained by many control variables was excluded. An explained variance of 29 % by these control variables cannot be considered trivial. Among these variables, presence of anxiety as the variable that has the highest significant correlation with depression ($r = .38$, $p < .01$) is also noteworthy.

As often mentioned in the previous sections, control over the problem situation was not related to any of the other variables in the study and did not interact with coping types in predicting adaptational outcomes. This was possibly related to its assessment. A certain limitation of this study is the lack of a pilot study. A pilot study that would be carried out for the assessment of appraisals about the stressor, especially the controllability perception, could have prevented the assessment problem. A pilot study could have been useful in terms of the wording of the instruction for stressor description. Subjects reported positive and multiple events with a high frequency in the present study. High frequency of positive events can be attributed to the wording of the instruction and this could be prevented with a pilot study.

Present study had a cross-sectional design. Prospective and longitudinal designs might have yielded different results. In addition, coping was problem-specific in the present study. Therefore, one cannot talk about a general coping style across diverse stressful encounters over time, which can be assessed via longitudinal studies. To examine the consistency of coping behaviors is possible with these kinds of studies. However, that the assessment of coping is problem-specific can be considered as a strength of the present study as well. Problem-specific assessment rather than a global assessment of coping can strengthen the conclusions drawn from specific situational factors that moderate the effect of coping. Moreover, it must be noted that coping behaviors reported in response to the self-defined stressors inevitably reflect the general coping styles of adolescents.

Consequently, issues related to the measurement device for coping must be addressed. Although it has been used in adolescent populations both in Turkey and other cultures, it was originally developed with an adult population. Just as adolescent coping literature relies on adult coping literature, so does its measurement. Adolescent coping scales have been developed, but scales assessing coping were neither developed nor adapted for Turkish adolescents. A coping instrument developed for adolescent population will be beneficial for both practitioners and theoreticians.

Future research on adolescent coping should focus on the factors related to this process in more detail. As stated before, literature on adolescent coping comes from adult literature. Adolescence is a developmental stage of rapid change and a transition period in which adaptation to new demands is more important than in any of the other stages of life. Therefore, coping processes in adolescence must be further investigated in detail by taking unique developmental characteristics of this period into account.

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APPENDIX A

DEMOGRAPHIC INFORMATION SHEET

Bu çalışmanın amacı insanların karşılaştıkları, onlara sıkıntı veren ve üzerlerinde stres yaratan olaylarla nasıl baş ettiklerini araştırmaktır. Elde edilen bulgular bilimsel amaçla kullanılacaktır. Araştırma sonuçları toplu olarak değerlendirileceğinden isminizi belirtmenize gerek yoktur. Sağlıklı bilgiler elde edilebilmesi için verdiğiniz yanıtlarda samimi olmanız son derece önemlidir. Katkılarınız için teşekkür ederim.

Mine OĞUL
ODTÜ Psikoloji Bölümü
Yüksek Lisans Öğrencisi

Lütfen aşağıdaki soruları yanıtlayınız.

1. Cinsiyetiniz _____
2. Yaşınız _____
3. Okulunuz _____
4. Sınıfınız _____
5. Annenizin mesleği _____ Çalışmakta olduğu işi _____
6. Babanızın mesleği_____ Çalışmakta olduğu işi _____
7. Lütfen anne ve babanızın eğitim durumunu belirtiniz.

	Anne	Baba
Okur-yazar değil	_____	_____
Okur-yazar fakat diploması yok	_____	_____
İlkokul mezunu	_____	_____
Ortaokul mezunu	_____	_____
Lise mezunu	_____	_____
Üniversite mezunu	_____	_____

8. Ailenizde birlikte yaşadığınız kişi sayısını belirtiniz (siz dahil). _____
9. Sizden başka kaç kardeşiniz var? _____
10. Kardeşlerinizin yaş(lar)ını ve eğitim durumunu belirtiniz.

Yaşı	Eğitim durumu
_____	_____
_____	_____
_____	_____
_____	_____

APPENDIX B

DESCRIPTION OF STRESSOR EVENT AND APPRAISALS

Son bir ay içinde başınızdan geçen, sizi etkileyen ve sizin için önemli olan bir olayı düşününüz. Bu olay okuldaki başarınız, arkadaşlarınız, öğretmenleriniz ya da ailenizle ilişkileriniz, bir yakınınızın hastalığı/ölümü gibi konularda sizin için sorun yaratan bir olay olabilir.

1. Bu olayın ne olduğunu açıklayınız.

Bundan sonraki soruları yanıtlarken soruların altında yer alan ölçeklerden yararlanarak sizin için uygun olan şıkkı daire içine alınız.

2. Bu olay sizi ne kadar etkiledi?

(1)	(2)	(3)	(4)	(5)
Çok az	Az	Orta derecede	Fazla	Çok Fazla

3. Sizin için bu olay ne derecede önemlidir?

(1)	(2)	(3)	(4)	(5)
Çok az	Az	Orta derecede	Fazla	Çok Fazla

4. Bu olayın meydana gelmesini ne derecede kontrol edebiliyordunuz?

(1)	(2)	(3)	(4)	(5)
Hiç kontrol edemiyordum	Kontrol edemiyordum	Ne kontrol edebiliyordum ne de edemiyordum	Kontrol edebiliyordum	Tamamen kontrol edebiliyordum

5. Bu tür olaylar ne sıklıkta başınıza gelir?

(1)	(2)	(3)	(4)	(5)
Çok nadir	Nadir	Ara sıra	Sıklıkla	Her zaman

6. Bu olaydan başka, sizin için sorun yaratan olaylar ne sıklıkta başınıza gelir?

(1)	(2)	(3)	(4)	(5)
Çok nadir	Nadir	Ara sıra	Sıklıkla	Her zaman

APPENDIX C

WAYS OF COPING SCALE

Aşağıda verilen ifadeler insanların bu tür olaylar karşısındaki davranış, düşünce ve tutumlarıyla ilgilidir. Sizden istenen **bir önceki sayfada belirttiğiniz olayla başa çıkmak** için aşağıdaki maddelerde belirtilenlere ne sıklıkta başvurduğunuzu işaretlemenizdir.

Lütfen her maddeyi dikkatle okuyunuz ve maddelerin tümünü işaretlemeye çalışınız. Bir madde için birden fazla işaret koymayınız.

	Hiçbir Zaman	**Bazen**	**Sık Sık**	**Her zaman**
1. Aklımı kurcalayan şeylerden kurtulmak için değişik işlerle uğraşırım.	0	1	2	3
2. Bir sıkıntım olduğunu kimsenin bilmesini istemem.	0	1	2	3
3. Bir mucize olmasını beklerim.	0	1	2	3
4. İyimser olmaya çalışırım.	0	1	2	3
5. Bunu da atlatırsam sırtım yere gelmez diye düşünürüm.	0	1	2	3
6. Çevremdeki insanlardan problemi çözmede bana yardımcı olmalarını beklerim.	0	1	2	3
7. Bazı şeyleri büyütmeyip üzerinde durmamaya çalışırım.	0	1	2	3
8. Sakin kafayla düşünmeye ve öfkelenmemeye çalışırım.	0	1	2	3
9. Bu sıkıntılı dönem bir an önce geçsin isterim.	0	1	2	3
10. Olayın değerlendirmesini yaparak en iyi kararı vermeye çalışırım.	0	1	2	3

11. Konuyla ilgili olarak başkalarının ne düşündüğünü anlamaya çalışırım.	0	1	2	3
12. Problemin kendiliğinden hallolacağına inanırım.	0	1	2	3
13. Ne olursa olsun direnme ve mücadele etme gücünü kendimde hissederim.	0	1	2	3
14. Başkalarının rahatlamama yardımcı olmalarını beklerim.	0	1	2	3
15. Kendime karşı hoşgörülü olmaya çalışırım.	0	1	2	3
16. Olanları unutmaya çalışırım.	0	1	2	3
17. Teleşımı belli etmemeye ve sakin olmaya çalışırım.	0	1	2	3
18. Başa gelen çekilir diye düşünürüm.	0	1	2	3
19. Problemin ciddiyetini anlamaya çalışırım.	0	1	2	3
20. Kendimi kapana sıkışmış gibi hissederim.	0	1	2	3
21. Duygularımı paylaştığım kişilerin bana hak vermesini isterim.	0	1	2	3
22. Hayatta neyin önemli olduğunu keşfederim.	0	1	2	3
23. "Her işte bir hayır vardır" diye düşünürüm.	0	1	2	3
24. Sıkıntılı olduğumda her zamankinden fazla uyurum.	0	1	2	3
25. İçinde bulunduğum kötü durumu kimsenin bilmesini istemem.	0	1	2	3
26. Dua ederek Allah'tan yardım dilerim.	0	1	2	3
27. Olayla ilgili kararı ertelemeye çalışırım.	0	1	2	3
28. Olanla yetinmeye çalışırım.	0	1	2	3
29. Olanları kafama takıp sürekli düşünmekten kendimi alamam.	0	1	2	3
30. İçimde tutmaktansa paylaşmayı tercih ederim.	0	1	2	3
31. Mutlaka bir yol bulabileceğime inanır, bu yolda uğraşırım.	0	1	2	3

32. Sanki bu bir sorun değilmiş gibi davranırım.	0	1	2	3
33. Olanlardan kimseye söz etmemeyi tercih ederim.	0	1	2	3
34. İş olacağına varır diye düşünürüm.	0	1	2	3
35. Neler olabileceğini düşünüp ona göre davranmaya çalışırım.	0	1	2	3
36. İşin içinden çıkamayınca elimden birşey gelmiyor der, durumu olduğu gibi kabullenirim.	0	1	2	3
37. İlk anda aklıma gelen kararı uygularım.	0	1	2	3
38. Ne yapacağıma karar vermeden önce arkadaşlarımın fikrini alırım.	0	1	2	3
39. Herşeye yeniden başlayacak gücü bulurum.	0	1	2	3
40. Problemin çözümü için adak adarım.	0	1	2	3
41. Olaylardan olumlu birşey çıkarmaya çalışırım.	0	1	2	3
42. Kırgınlığımı belirtirsem kendimi rahatlamış hissederim.	0	1	2	3
43. Alın yazısına ve bunun değişmeyeceğine inanırım.	0	1	2	3
44. Soruna birkaç farklı çözüm yolu ararım.	0	1	2	3
45. Başıma gelenlerin herkesin başına gelebilecek şeyler olduğuna inanırım.	0	1	2	3
46. Olanları keşke değiştirebilseydim derim.	0	1	2	3
47. Aile büyüklerine danışmayı tercih ederim.	0	1	2	3
48. Hayatla ilgili yeni bir bakış açısı geliştirmeye çalışırım.	0	1	2	3
49. Herşeye rağmen elde ettiğim bir kazanç vardır diye düşünürüm.	0	1	2	3
50. Gururumu koruyup güçlü görünmeye çalışırım.	0	1	2	3
51. Bu işin cezasını çekerim.	0	1	2	3
52. Problemi adım adım çözmeye çalışırım.	0	1	2	3
53. Elimden hiçbirşeyin gelemeyeceğine inanırım.	0	1	2	3
54. Problemin çözümü için bir uzmana danışmanın en iyi yol olacağına inanırım.	0	1	2	3

55. Bir hocaya gider kendimi okuttururum.	0	1	2	3
56. Herşeyin istediğim gibi olmayacağına inanırım.	0	1	2	3
57. Bu dertten kurtulayım diye fakir fukaraya sadaka veririm.	0	1	2	3
58. Ne yapılacağını planlayıp ona göre davranırım.	0	1	2	3
59. Mücadeleden vazgeçerim.	0	1	2	3
60. Sorunun benden kaynaklandığını düşünürüm.	0	1	2	3
61. Olanlar karşısında kaderim buymuş derim.	0	1	2	3
62. Sorunun gerçek nedenini anlayabilmek için başkalarına danışırım.	0	1	2	3
63. Keşke daha güçlü bir insan olsaydım diye düşünürüm.	0	1	2	3
64. Nazarlık takarak, muska taşıyarak benzer olayların olmaması için önlemler alırım.	0	1	2	3
65. Ne olup bittiğini anlayabilmek için sorunu enine boyuna düşünürüm.	0	1	2	3
66. Benim suçum ne diye düşünürüm.	0	1	2	3
67. Allah'ın takdiri buymuş diye kendi kendimi teselli ederim.	0	1	2	3
68. Temkinli olmaya ve yanlış yapmamaya çalışırım.	0	1	2	3
69. Bana destek olabilecek kişilerin varlığını bilmek beni rahatlatır.	0	1	2	3
70. Çözüm için kendim birşeyler yapmak isterim.	0	1	2	3
71. Hep benim yüzümden oldu diye düşünürüm.	0	1	2	3
72. Mutlu olmak için başka yollar ararım.	0	1	2	3
73. Hakkımı savunabileceğime inanırım.	0	1	2	3
74. Bir kişi olarak iyi yönde değiştiğimi ve olgunlaştığımı hissederim.	0	1	2	3

APPENDIX D

CHILD DEPRESSION INVENTORY

Aşağıda gruplar halinde cümleler yazılıdır. Her gruptaki cümleleri dikkatlice okuyunuz. Her grup içinden, **bugün de dahil olmak üzere son bir haftadır** yaşadıklarınızı en iyi şekilde tanımlayan cümleyi seçip yanındaki harfi daire içine alınız.

1. (a) Kendimi arada sırada üzgün hissederim.
(b) Kendimi sık sık üzgün hissederim.
(c) Kendimi her zaman üzgün hissederim.

2. (a) İşlerim hiçbir zaman yolunda gitmeyecek.
(b) İşlerimin yolunda gidip gitmeyeceğinden emin değilim.
(c) İşlerim yolunda gidecek.

3. (a) İşlerimin çoğunu doğru yaparım.
(b) İşlerimin çoğunu yanlış yaparım.
(c) Herşeyi yanlış yaparım.

4. (a) Birçok şeyden hoşlanırım.
(b) Bazı şeylerden hoşlanırım.
(c) Hiçbirşeyden hoşlanmam.

5. (a) Her zaman kötü bir çocuğum.
(b) Çoğu zaman kötü bir çocuğum.
(c) Arada sırada kötü bir çocuğum.

6. (a) Arada sırada başıma kötü birşeylerin geleceğini düşünürüm.
(b) Sık sık başıma kötü şeylerin geleceğinden endişelenirim.
(c) Başıma çok kötü şeylerin geleceğinden eminim.

7. (a) Kendimden nefret edrim.
(b) Kendimi beğenmem.
(c) Kendimi beğenirim.

8. (a) Bütün kötü şeyler benim hatam.
(b) Kötü şeylerin bazıları benim hatam.
(c) Kötü şeyler genellikle benim hatam değil.

9. (a) Kendimi öldürmeyi düşünmem.
(b) Kendimi öldürmeyi düşünürüm ama yapamam.
(c) Kendimi öldürmeyi düşünüyorum.

10. (a) Hergün içimden ağlamak gelir.
(b) Birçok günler içimden ağlamak gelir.
(c) Arada sırada içimden ağlamak gelir.

11. (a) Herşey her zaman beni sıkar.
(b) Herşey sık sık beni sıkar.
(c) Herşey arada sırada beni sıkar.

12. (a) İnsanlarla beraber olmaktan hoşlanırım.
(b) Çoğu zaman insanlarla birlikte olmaktan hoşlanmam.
(c) Hiçbir zaman insanlarla birlikte olmaktan hoşlanmam.

13. (a) Herhangi birşey hakkında karar veremem.
(b) Herhangi birşey hakkında karar vermek zor gelir.
(c) Herhangi birşey hakkında kolayca karar veririm.

14. (a) Güzel, yakışıklı sayılırım.
(b) Güzel, yakışıklı olmayan yanlarım var.
(c) Çirkinim.

15. (a) Okul ödevlerimi yapmak için her zaman kendimi zorlarım.
(b) Okul ödevlerimi yapmak için çoğu zaman kendimi zorlarım
(c) Okul ödevlerimi yapmak sorun değil.

16. (a) Her gece uyumakta zorluk çekerim.
(b) Birçok gece uyumakta zorluk çekerim.
(c) Oldukça iyi uyurum.

17. (a) Arada sırada kendimi yorgun hissederim.
(b) Birçok gün kendimi yorgun hissederim.
(c) Her zaman kendimi yorgun hissederim.

18. (a) Hemen hergün canım yemek yemek istemez.
(b) Çoğu gün canım yemek yemek istemez.
(c) Oldukça iyi yemek yerim.

19. (a) Ağrı ve sızılardan endişe etmem.
(b) Çoğu zaman ağrı ve sızılardan endişe ederim.
(c) Her zaman ağrı ve sızılardan endişe ederim.

20. (a) Kendimi yalnız hissetmem.
(b) Çoğu zaman kendimi yalnız hissederim.
(c) Her zaman kendimi yalnız hissederim.

21. (a) Okuldan hiç hoşlanmam.
(b) Arada sırada okuldan hoşlanırım.
(c) Çoğu zaman okuldan hoşlanırım.

22. (a) Birçok arkadaşım var.
(b) Birkaç arkadaşım var ama daha fazla olmasını isterdim.
(c) Hiç arkadaşım yok.

23. (a) Okul başarım iyi.
(b) Okul başarım eskisi kadar iyi değil.
(c) Eskiden iyi olduğum derslerden çok başarısızım.

24. (a) Hiçbir zaman diğer çocuklar kadar iyi olamıyorum.
(b) Eğer istersem diğer çocuklar kadar iyi olurum.
(c) Diğer çocuklar kadar iyiyim.

25. (a) Kimse beni sevmez.
(b) Beni seven insanların olup olmadığından emin değilim.
(c) Beni seven insanların olduğundan eminim.

26. (a) Bana söyleneni genellikle yaparım.
(b) Bana söyleneni çoğu zaman yaparım.
(c) Bana söyleneni hiçbir zaman yapmam.

27. (a) İnsanlarla iyi geçinirim.
(b) İnsanlarla sık sık kavga ederim.
(c) İnsanlarla her zaman kavga ederim.

APPENDIX E

BECK ANXIETY INVENTORY

Aşağıda insanların kaygılı ya da endişeli oldukları zamanlarda yaşadıkları bazı belirtiler verilmiştir. Lütfen her maddeyi dikkatle okuyunuz. Daha sonra, her maddedeki belirtinin **bugün dahil son bir haftadır** sizi ne kadar rahatsız ettiğini maddelerin yanındaki size uygun olan kutuya (X) işareti koyarak belirtiniz.

	Hiç	Hafif Derecede	Orta Derecede	Ciddi Derecede
1. Bedeninizin herhangi bir yerinde uyuşma veya karıncalanma	0	1	2	3
2. Sıcak/ateş basmaları	0	1	2	3
3. Bacaklarda halsizlik, titreme	0	1	2	3
4. Gevşeyememe	0	1	2	3
5. Çok kötü şeyler olacak korkusu	0	1	2	3
6. Baş dönmesi veya sersemlik	0	1	2	3
7. Kalp çarpıntısı	0	1	2	3
8. Dengeyi kaybetme duygusu	0	1	2	3
9. Dehşete kapılma	0	1	2	3
10. Sinirlilik	0	1	2	3
11. Boğuluyormuş gibi olma duygusu	0	1	2	3
12. Ellerde titreme	0	1	2	3
13. Titreklik	0	1	2	3
14. Kontrolü kaybetme korkusu	0	1	2	3
15. Nefes almada güçlük	0	1	2	3

16. Ölüm korkusu	0	1	2	3
17. Korkuya kapılma	0	1	2	3
18. Midede hazımsızlık ya da rahatsızlık hissi	0	1	2	3
19. Baygınlık	0	1	2	3
20. Yüzün kızarması	0	1	2	3
21. Terleme (sıcağa bağlı olmayan)	0	1	2	3

APPENDIX F

ADOLESCENT CONCERNS SCALE

Aşağıda kişilerin kafasını meşgul eden ya da onlar için sorun yaratan durumlarla ilgili bazı ifadeler verilmiştir. Burada verilenlerin kafanızı ne kadar meşgul ettiği, ne kadar zamanınızı aldığı ya da sizin için ne kadar önemli olduğunu göz önüne alarak uygun seçeneği işaretleyiniz.

Herhangi bir maddede belirtilen size uymuyorsa ya da sizin için bir sorun yaratmıyorsa "Hiçbir zaman" seçeneğini işaretleyiniz.

	Hiçbir Zaman	Bazen	Sık Sık	Her zaman
1. Okuldaki notlarım	0	1	2	3
2. Nükleer bir savaş	0	1	2	3
3. Dış görünüşüm	0	1	2	3
4. Annem ve babamla ilişkilerim	0	1	2	3
5. Sigara içmek	0	1	2	3
6. "Ben kimim" sorusu	0	1	2	3
7. Arkadaşlarımla ilişkileri	0	1	2	3
8. Ailemden birinin sağlık sorunları	0	1	2	3
9. Dünyadaki açlık	0	1	2	3
10. Okulu bitirdikten sonra iş bulmak	0	1	2	3
11. İçki-alkol sorunum	0	1	2	3
12. Çevrenin kirletilmesi ya da doğanın yok edilmesi	0	1	2	3
13. Bir meslek konusunda karar verme	0	1	2	3
14. İlaç, madde alışkanlığı	0	1	2	3
15. Cinsel duygularım	0	1	2	3

16. Gerçekten nasıl bir insan olduğumu fark etmek, anlamak	0	1	2	3
17. Öğrenciliğim sırasında bir ek iş bulup para kazanmak	0	1	2	3
18. Kendi sağlık sorunlarım	0	1	2	3
19. Kardeşlerimle ilişkilerim	0	1	2	3
20. Şu andaki okulumu bitirdikten sonraki eğitimim	0	1	2	3
21. Bir kız/erkek arkadaşla çıkmak	0	1	2	3
22. Dünya barışı ve silahsızlanma	0	1	2	3
23. Boyum ve kilom	0	1	2	3
24. Okuldaki başarım	0	1	2	3
25. AIDS problemi	0	1	2	3
26. İyi bir eğitim sahibi olmak	0	1	2	3
27. Daha çok aranılan, beğenilen, istenilen, popüler biri olmak	0	1	2	3
28. Ailemle ilişkilerim	0	1	2	3
29. İnsanların bencilliği	0	1	2	3
30. Güzel giysilere sahip olup iyi giyinebilmek	0	1	2	3
31. Dünyadaki fakirlik ve haksızlıklar	0	1	2	3
32. Para kazanmak	0	1	2	3
33. Üniversite giriş sınavını kazanmak	0	1	2	3
34. Fen Lisesi, Anadolu Lisesi gibi bir liseye girebilmek	0	1	2	3
35. Dini konular	0	1	2	3
36. Yalnızlık	0	1	2	3
37. Toplumumuzdaki siyasi olaylar	0	1	2	3
38. Ülkemizdeki nüfus artışı	0	1	2	3
39. Maddi durumum	0	1	2	3
40. Yaşıtlarımla aramdaki rekabet				