

REPUBLIC OF TURKEY
BAHCESEHIR UNIVERSITY

**DEVELOPMENT OF A CULTURALLY-SENSITIVE
COPING WITH STRESS SCALE FOR TURKISH
CHILDREN AND ADOLESCENTS**

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DEVELOPMENT OF A CULTURALLY-SENSITIVE COPING WITH STRESS SCALE
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Nejla Yıldız

ABSTRACT

DEVELOPMENT OF A CULTURALLY-SENSITIVE COPING WITH STRESS SCALE FOR TURKISH CHILDREN AND ADOLESCENTS

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Coping is defined as behavioral and cognitive efforts to end or reduce the tension caused by stressful events regardless of whether the result is successful or not. Coping has been found to relate to psychological adjustment and psychopathology. Despite the significance and implications of coping strategies, there is no available coping with stress scale for children and adolescents that developed specifically for Turkish culture. Existing measures of children and adolescents' coping have various limitations such as the process of item generation, lack of developmental component, psychometric inadequacies and the neglect of culture. Thus, the purpose of the study was to develop and validate the Children and Adolescents Coping with Stress Scale (CACSS) which was designed to assess coping strategies of children and adolescents in response to self-identified stressors.

The study includes both qualitative and quantitative methodology. Qualitative data collected through focus group interviews and expert review were used in item generation

and scale revision. Quantitative data were collected during the preliminary and the final scale administration and were used to establish factor structure, reliability and validity of CACSS and its relation with gender and age-groups.

The final sample was comprised of 664 Turkish children and adolescents from grades 3 to 12 (335 girls, 327 boys, age range: 9-18 years), selected from students of 3 public and 1 private schools in different districts of Istanbul representing various socioeconomic status.

Following pilot test of preliminary items and subsequent revisions, an exploratory factor analysis with varimax rotation was used for factor extraction. Factor analysis computations yielded 11 subscales for the 88 item CACSS and accounted for 50.26 % of the total variance. Subscales consist of problem solving & positive focus, aggression, social support seeking, play & humor, religious coping, self-blame, self-isolation, positive reappraisal, risk taking, seeking professional help, and avoidance coping. The internal consistencies of 11 subscales have ranged from .57 to .93; with 8 out of 11 coping subscales exceed the criteria of above .70. The 2-week test-retest reliability coefficients varied between .50-.83. Construct validity was supported through correlations with Strengths and Difficulties Questionnaire; convergent and discriminant validity was supported by correlations with Turkish version of Stress and Coping Questionnaire for Children and Adolescents. Gender and developmental differences were obtained in the use of coping strategies by children and adolescents.

Results indicate that findings supported the reliability and validity of the CACSS and present a promising new scale of children and adolescents' coping. CACSS, by addressing limitations of existing coping scales, contributes to literature and clinical practice, as providing psychometrically sound, developmentally appropriate, multidimensional and culturally sensitive scale. The strengths and limitations, as well as implications of the findings were discussed.

Key words: Scale development, Coping strategy, Stress, Children, Adolescents

ÖZ

TÜRK ÇOCUK VE ERGENLER İÇİN KÜLTÜRE DUYARLI STRESLE BAŞA ÇIKMA ÖLÇEĞİ GELİŞTİRME ÇALIŞMASI

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Başa çıkma, stresli durumdan kaynaklanan gerilimi sonlandırmak ya da azaltmak için gösterilen davranışsal ve zihinsel çabalardır. Başa çıkma, psikolojik uyum ve psikopatoloji ile ilişkili bulunmuştur. Başa çıkma stratejilerinin önemi ve çıkarımlarına rağmen, çocuk ve ergenler için Türk kültürüne özgü olarak geliştirilmiş stresle başa çıkma ölçeği bulunmamaktadır. Literatürde var olan çocuk ve ergenler için stresle başa çıkma ölçeklerinin madde oluşturma süreci, gelişimsel farklılıkların göz ardı edilmesi, psikometrik yetersizlikler ve kültürel farklılığın ihmali gibi çeşitli zayıf yanları bulunmaktadır. Bu araştırmanın amacı çocuk ve ergenlerin kendi belirlemiş oldukları stresli olaylara karşı başa çıkma stratejilerini değerlendiren bir Çocuk ve Ergenler için Stresle Başa Çıkma Ölçeği (ÇESBÖ) geliştirmektir.

Araştırma, hem niteliksel hem de niceliksel yöntemleri içermektedir. Niteliksel veriler, odak grup görüşmeleri ve bilirkşi gözden geçirmesi sonucu elde edilmiş, madde oluşturma

ve ölçek gözden geçirmesinde kullanılmıştır. Niceliksel veriler, ölçeğin pilot ve esas uygulamasında elde edilerek, ÇESBÖ'nün faktör yapısı, geçerlik ve güvenilirlik ve cinsiyet ve yaş gruplarıyla olan ilişkisi belirlenmiştir.

Esas çalışma, ilkokul 3.sınıf ve lise 4.sınıf arasındaki 664 Türk çocuk ve ergenden oluşmaktadır (335 kız, 327 erkek, yaş aralığı: 9-18). Örneklem, çeşitli sosyo-ekonomik konumu yansıtan İstanbul'un farklı bölgelerindeki 3 devlet okulu ve 1 özel okuldaki öğrencilerden seçilmiştir.

Pilot uygulama ve gözden geçirmelerin ardından, faktörlerin belirlenmesi için varimax rotasyonu ile açımlayıcı faktör analizi kullanılmıştır. Faktör analizi yöntemleri ile ÇESBÖ'nün 88 madde için 11 faktörlü yapısı belirlenmiş ve toplam varyansın % 50.26'sını açıkladığı bulunmuştur. Alt ölçekler, problem çözme & olumluya odaklanma, agresyon yoluyla başa çıkma, sosyal destek arama, oyun & mizah, dini olarak başa çıkma, kendini suçlama, kendini soyutlama, pozitif yeniden yorumlama, profesyonel destek arama, risk alma ve kaçınmacı başa çıkmadan oluşmaktadır. 11 alt ölçeğin iç tutarlılığı .57 ile .93 arasında değişmekle birlikte, alt ölçeklerin 8'i .70 kriterinin üzerinde bir değere sahiptir. 2 hafta aralıkla test-tekrar test güvenilirlik katsayıları ise .50 ile .83 arasında bulunmuştur. Yapı geçerliliği, Güçler ve Güçlükler Anketi ile ilişkisine bakılarak; birleşme ve ayrışma geçerliliği Türkçe adaptasyonu yapılmış Stresle Başa Çıkma Anketi ile ilişkisine bakılarak desteklenmiştir. Çocuklar ve gençlerin, başa çıkma stratejilerinde cinsiyet ve gelişimsel farklılıkların olduğu bulunmuştur.

Sonuçlar, ölçeğin Türk çocuk ve ergen örnekleminde güvenilirliği ve geçerliğini desteklemektedir. ÇESBÖ, var olan başa çıkma ölçeklerinin zayıf yanlarına değinerek, psikometrik olarak güvenilir, gelişimsel olarak çocuk ve ergenlere uygun, çok boyutlu ve kültüre duyarlı bir ölçek oluşturarak literatüre ve klinik uygulamalara katkı sağlamaktadır. Çalışmanın güçlü yanları, zayıf tarafları ve katkıları tartışılmıştır.

Anahtar Kelimeler: Ölçek geliştirme, Başa çıkma stratejileri, Stres, Çocuklar, Ergenler.

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LIST OF ABBREVIATIONS

- ANOVA : Analysis of Variance
- CACSS : Children and Adolescents Coping with Stress Scale
- CASQ : Coping Across Situation Questionnaire
- CBCL : Child Behavior Checklist
- ÇESBÖ : Çocuk ve Ergenler için Stresle Başa Çıkma Ölçeği
- KMO : Kaiser-Myer-Olkin
- MANOVA: Multivariate Analysis of Variance
- PCA : Principal Component Analysis
- SDQ : The Strengths and Difficulties Questionnaire
- SPSS : Statistical Package for Social Sciences
- SSKJ 3–8 : Stress and Coping Questionnaire for Children and Adolescents
- YSR : Youth Self Report

CHAPTER 1

INTRODUCTION

1.1. Coping in Children and Adolescents

1.1.1. The Concept of Stress and Coping

The most widely cited definition of coping is in the model of Lazarus and Folkman (1984). They defined coping as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person". This definition makes distinction between intentional and effortful, and automatic and involuntarily coping. According to their model, coping includes only intentional responses whether the outcome is successful or not. On the other hand, Skinner's model (1995) differs from Lazarus and Folkman (1984) model in that coping involves both effortful and involuntary responses to cope with stress (Compas et al., 2001). Compas et al., (2001) also indicated similar view with Skinner (1995) that stress responses involve not only effortful, volitional coping but also automatic and involuntary coping strategies such as rumination, catastrophizing and ventilation of emotions.

The way in children and adolescents perceive and deal with stressful situations contributes to their mental health but also to physical and social well-being (Piko, 2001). From a clinical perspective coping strategies are significant in two ways. First, coping

strategies play important role on psychological well-being as both protective and risk factors (Lazarus & Folkman, 1984). The methods that children and adolescents use to cope with stressful situations have an effect on present and following psychological adjustment and psychopathology (Compas et al., 2001). In the review of Sveinbjornsdottir and Thorsteinsson's (2008) article, they found that coping strategies in adolescence are related with academic success and mental and physical health. In addition, coping strategies that were learned in childhood and adolescence affect the use of these strategies in adulthood. Therefore learned useful coping strategies may protect children and adolescence from stress in adulthood. Contrarily, adolescents who did not learn effective coping strategies have increased risk for suicide attempt, depressed mood, conduct disorder (Sadowski, Moore, & Kelley, 1994) and other behavioral and emotional problems (Hess & Richards, 1999).

Secondly, coping strategies are significant for psychological interventions. In the treatment and prevention of psychological problems, coping skills of children and adolescents are improved in order to cope with stressful situations better, as well as to enhance their future resiliency (Compas et al., 2001). In this manner, children and adolescents may be taught adaptive coping strategies which can serve as both protective and preventive action for future stressful situations, as well as improve their resiliency.

1.1.2. Coping Theory

A common stress and coping theory by Lazarus and Folkman (1984) are based on transactional model that emphasizes coping as a mediator in the dynamic and reciprocal relationship between the person and the environment. The coping process has been characterized in four steps. The first step, *appraisal of the stressor* is an evaluation of event about its significance and impacts on person's well-being and whether it is stressful, controllable, or positive. Then, *selecting a coping strategy* follows which is an assessment of person's coping resources and coping strategies. The third step involves *carrying out the coping strategy* to overcome the stressful situation. The final step

includes an assessment of person's coping efforts regarding its effectiveness in managing or reducing the tension caused by stressor (Smith & Carlson, 1997).

Coping is inevitably linked with the concept of stress, because coping can be adequately understood in response to specified stressors. The choice of coping strategies are influenced by the controllability of situation, the appraisal of stressor, the perceived coping efficacy and the severity of situation (Aldwin, 2007). Generally, the problem-focused coping is more adaptive when situation is perceived controllable, but if person perceives the situation uncontrollable and the demands of situations exceed his/her resources, the emotion-focused coping is more effective (Aldwin, 2007).

Type of stressors children and adolescents encounter might be different from adult populations. The source of stress can be ranged from daily hassles to major life events (e.g. death of a parent), normative (e.g. future concerns) to non-normative stressors (Skinner & Zimmer-Gembeck, 2007). The most frequently reported stressors were related to school (academic difficulties, problems with teacher) and interpersonal relationships (conflict with parents, peers and siblings) (Donaldson, Prinstein, Danovsky, & Spirito, 2000).

1.1.3. Classification of Coping Strategies

Various coping strategies have been used in research on how children and adolescents cope with stress. Despite this, there is little agreement on the subtypes of coping that best distinguish different coping strategies in children and adolescents. The most widely used coping categorization models are problem-/emotion-focused coping; primary/secondary control coping; and approach/avoidance coping (Compas et al., 2001).

A widely-used model made by Lazarus and Folkman (1984), is the problem-focused and emotion-focused coping. In that model, problem-focused coping aims to change stressful situation and involves strategies such as active problem-solving,

planning, considering other options. On the other hand, emotion-focused coping aims at regulating emotions and cognitions with using wishful thinking, self-blame, self-isolation, seeking social support, tension-reduction, focusing on positive and avoidance.

The second dimension focuses on two-process model of perceived control (Rothbaum, Weisz, & Snyder, 1982). While primary control coping aims to affect objective conditions or events, secondary control coping aims at adaptation to situations. Primary control involves active efforts to change a situation, whereas secondary control involves acceptance of uncontrollable events.

The other theoretical perspective is the approach and avoidance coping (Ebata & Moos, 1991). While Lazarus and Folkman (1984) classified coping strategies regarding to their function, the approach and avoidance model distinguish coping based on their focus (Ebata & Moos, 1991). Approach coping involves strategies that are oriented toward stressor, which includes active coping, planning, positive cognitive restructuring, seeking social support to solve a problem. Avoidance coping includes minimization or denial of a situation, escape, emotional expression strategies oriented away from a stressor to avoid it.

These broad classifications have been criticized for being simple to represent complexity and distinction of coping (Aldwin, 2007). Beside these major theoretical perspectives, various studies have used scales generated from factor analytic methods (e.g. Dize-Lewis, 1988; Patterson & McCubbin, 1987; Spirito, Spark, & Williams, 1988). Empirically derived scales are functional in presenting information specific to children and adolescents and more specific coping categories rather than broad classification.

1.1.4. Coping Strategies and Mental Health

The relationship between coping and mental health has been widely examined in the literature. Both specific coping strategies and coping pattern play important role on

the impact of stressful situations and in the development of psychological problems (Borden, Clum, Broyles & Watkins, 1988).

General agreement on the relationship between coping strategies and mental health is that problem-focused or approach strategies are associated with better well-being whereas emotion-focused and avoidant coping are related to poorer adjustments (Fields & Prinz, 1997).

Psychological well-being was positively associated with problem solving and social support seeking, but negatively associated with passive coping and risk taking coping in both gender during adolescence (Piko, 2001). In another study, adolescents that applied more approach coping and less avoidant coping were found to have less mental health problems and get involved in less high risk behaviors (Steiner, Pavelski, Pitts, & McQuivey, 1998). In similar pattern, increased approach coping were associated with less depressive symptoms and increased avoidant coping were related with more depressive symptoms in both gender (Seiffge-Krenke & Klessinger, 2000). Findings were also enduring over the course of 4 years and authors indicated that avoidant coping might be considered as a risk factor for developing depression clinically. In other studies, avoidant coping was found to be positively related with depression, anxiety and conduct problems (Sandler, Tein & West, 1994) and specific types of avoidant coping (e.g. aggression coping, helpless coping, and hangout coping) were found to be positively correlated with substance use in adolescence (Wills, Sandy, Yaeger, Cleary & Shinar, 2001). Self-destruction and aggression coping were also positively related with higher symptom levels (Dise-Lewis, 1988).

Compas et al. (2001) reviewed the studies and found that cognitive and behavioral avoidance, self-blame, wishful thinking, social withdrawal and resigned acceptance were also positively related with poorer adjustment. In addition to these coping strategies, in the review of Fields and Prinz (1997) on coping and adjustment during childhood and adolescence, emotional ventilation or discharge and aggression coping were also positively associated with externalizing symptoms and negatively

associated with internalizing symptoms. Problem solving, active coping, cognitive strategies, and positive reappraisal were found negatively related with internalizing and externalizing problems, therefore showed better adjustment. Seeking social support from parent was negatively related with internalizing and externalizing problems in adolescence. However, mixed results were found in positive relationship with internalizing symptoms during middle childhood (Fields and Prinz, 1997).

Religious coping is generally divided into two components: positive and negative religious coping. In a study with high school students, positive religious coping was positively associated with positive affect and life satisfaction, and negatively related with depressive symptoms; conversely negative religious coping had a positive relationship with negative affect and indications of depression, anxiety and somatization, also negative relationship with life satisfaction and positive affect (Terrerri & Glenwick, 2013). Regarding humor coping, positive forms of humor was positively associated with better psychological adjustment (Kuiper & Martin, 1993).

In the study with Turkish sample of children and adolescents, seeking social support positively associated with physical and emotional symptoms and also with prosocial behavior. Problem solving was positively correlated with prosocial behavior and negatively correlated with conduct problems and hyperactivity/inattention. Avoidant coping was positively related with peer related problems. Anger-related emotion regulation was positively correlated with emotional and physical symptoms, conducts problems, hyperactivity/inattention, anger, sadness and anxiety, and was negatively associated with prosocial behavior. Media use was also positively related with peer related and conduct problems, physical symptoms, anger and anxiety (Eschenbeck, Heim-Dreger, Tasdaban, Lohaus, & Kohlmann, 2012). In another study with Turkish children, children that use more playing as a coping reported less depressive symptoms (Güney, 1992).

Although there is a relationship between coping strategies and mental health, causal relation between coping and mental health seems to be bidirectional (Aldwin,

2007). Coping may impact well-being of person, but also people in poorer adjustment may use less effective strategies than people in better mental health. In addition, many factors might affect the relation between coping strategies and mental health. Type, severity and controllability of stressor can modify the effect of coping strategies on mental health. Some authors argued that problem-focused coping is more adaptive for controllable situations, but emotion-focused coping is more effective for uncontrollable situations because they cannot change the situation. In addition, overall pattern of coping strategies may be more effective and predictive for mental health rather than specific strategy (Aldwin, 2007). In conclusion, there are intermediate effects of situational characteristics on the relationship between coping strategies and mental health outcomes.

1.1.5. Factors Influencing Coping Strategies

Coping strategies that children and adolescents preferred to use may vary according to individual (age, gender, ethnicity, cultural practices and preferences, developmental level, personality, self-esteem, self-perception, perception of the one's ability by others), family (social support, family climate, perception of stress in family), and situational (type of stressor, controllable, uncontrollable) factors (Aldwin, 2007; Frydenberg, 1994; Parkes, 1986; Piko, 2001).

1.1.5.1. Gender and Coping

The literature suggests that gender is a significant factor on the ways of coping. The differences in the use of coping strategies may arise from socialization processes that contribute to gender stereotypes. According to gender socialization theory, males and females have been socialized into different gender roles that much importance given to autonomy and independence for males and social relations for females (Gilligan, 1982). Boys are socialized to use active coping strategies, while girls are socialized to use more passive, emotion-focused and social support seeking behaviors. Therefore, they learn that there are different expectations for them and get reinforcement for

different coping ways. For instance, boys perceive a situation as a challenge and develop an active coping strategy, whereas girls perceive a situation as more threatening and pessimistic, and use more wishful thinking strategies (Piko, 2001).

On adolescent coping, gender differences have frequently been found for seeking social support that girls use more social support seeking behaviors than boys (Ebata & Moos, 1994; Frydenberg & Lewis, 1993b; Patterson & McCubbin, 1987; Seiffge-Krenke & Shulman, 1990; Stark, Spirito, Williams, & Guevremont, 1989). Results for other coping strategies are less consistent (Eschenbeck, Kohlmann, & Lohaus, 2007). For instance, girls showed higher in active coping than boys (e.g. Eschenbeck et al., 2007; Frydenberg & Lewis, 1993b), but not in Hampel & Petermann's (2005) study. In contrast, boys tend to use avoidant coping strategies (e.g. Eschenbeck et al., 2007; Hampel & Petermann, 2005; Stark et al., 1989). However, other research showed that girls reported higher score in avoidant coping (Frydenberg & Lewis, 1993b; Griffith, Dubow, & Ippolito, 2000). Regarding emotion regulation strategies, girls tend to use strategies that involve tension reduction, self-blame, and worry more than boys. In contrast, boys are more likely to use strategies that involve distraction, avoidance, suppression, physical activity, and keeping it to themselves (Halstead, Johnson, & Cunningham, 1993; Frydenberg, 2008). Regarding religious coping, girls reported higher score than boys among high school students (Terrerri & Glenwick, 2013). There has been very little research about humor coping in children and adolescents. In a study by Führ (2002), boys found use more humor coping than girls to cope with stress. On the other hand, there were not found significant difference on risky coping among boys and girls (Piko, 2001).

In meta-analysis of 50 studies that included children, adolescents and adults of gender differences in coping strategies, Tamres, Janicki and Helgeson (2002) found that women were significantly more likely than men to use problem-focused coping, avoidant coping, seeking social support for instrumental and emotional reasons, positive reappraisal, rumination, wishful thinking, positive self-talk and religious coping. No gender difference was found in denial, isolation, emotional venting and self-blame.

The relation between gender and coping strategies in children and adolescents were examined in Turkish literature. Eschenbeck et al. (2012) using Turkish version of German Stress and Coping Questionnaire with Turkish sample of children and adolescents found that girls showed higher score in seeking social support than boys while boys reported higher score in avoidant coping, palliative emotion regulation and media use than girls. No gender difference was found for problem solving and anger related emotion regulation. In another study with Turkish adolescents using a Turkish adapted version of Coping Across Situation Questionnaire (CASQ) (Seiffge-Krenke, 1990) demonstrated that girls used more approach coping than boys; boys used more avoidant coping (Öngen, 2006).

Consequently, studies have showed gender differences in the use of coping strategies in children and adolescents but the results are varied. It may arise from using different assessment of coping, different stressor and appraisal of stressor severity and different age groups.

1.1.5.2. Developmental Stages and Coping

Coping strategies are assumed to be affected by changes in biological, social, emotional and cognitive development of individuals. Even though, people have consistency in coping strategies to some extent, developmental changes may lead to differences in ways of coping (Compas et al., 2001). In addition, as the age increases, the number of life events that people experience multiplies. Children and adolescents not only encounter with more stressors, but also more negative life events. Therefore they develop a range of coping strategies that differs from adaptive to maladaptive, from functional to dysfunctional.

Research has generally shown that as children mature, they exhibit larger repertoires of coping strategies (Donaldson et al., 2000). Because maturity brings cognitive complexity, older children can generate more solutions about how to handle the stressful situation and feelings. In addition, cognitive processes are influenced on

appraisal of the stressful events (Fields & Prinz, 1997). For instance, older children can more accurately assess the degree of controllability a person has over the circumstance and if the control is impossible or minimal they can purposely move their thoughts to something less disturbing. In addition, they are more able to look at stressful situation from different perspectives (Saarni, 1997). The development of formal operation thinking may help adolescents to prefer adaptive coping strategies because they are better in capable of abstract thinking to take into account various viewpoints and their consequences (Fields & Prinz, 1997).

Results on developmental differences in problem-solving coping are a bit inconsistent. Some studies have shown that older children were less likely to use problem solving strategies (Frydenberg, 2008; Roecker, Dubow, & Donaldson, 1996); while some studies did not find significant developmental changes in problem-focused coping (Donaldson et al., 2000; Hampel & Petermann, 2005). However, research mostly found increases in age for the approach or problem solving coping (Ebata & Moos, 1994; Eschenbeck et al., 2007; Skinner & Zimmer-Gembeck, 2007). In their comprehensive review of the literature on the development of coping, Skinner and Zimmer-Gembeck (2007) concluded that cognitive coping skills are acquired in middle childhood. As children progress from the pre-school years to adolescence, they tend to use more complex coping strategies with emergence of meta-cognitive skills. For instance, they can take into consideration other points of view and consider the impact of their ways of coping on themselves and others.

Regarding social support seeking coping, Skinner and Zimmer-Gembeck (2007) concluded that seeking support from adults shows decline from early childhood to late childhood and adolescent years; however there is an increase in seeking support from friends into middle adolescence. Older adolescents (15 to 18) were more likely to use seeking professional help than younger adolescents (13 to 14) (Schonert-Reichl & Muller, 1996). Developmental differences on seeking social support explained by a characteristic of the social interaction of adolescents with peers and having less desire

for self-disclosure to parents and high need for autonomy as they move from childhood to adolescence (Schonert-Reichl & Muller, 1996).

In regard to avoidant coping, Fields and Prinz (1997) in their review of literature noted that younger children are more likely to use behavioral avoidance coping strategies for various stressful situations. As their age increases, they are more likely to use cognitive avoidance rather than behavioral distraction. Similarly, Skinner and Zimmer-Gembeck (2007) indicated increases in the use of cognitive avoidance between childhood and adolescence.

Research findings on risk taking coping such as taking drugs and drinking reported that older students tended to use more risk taking coping and in general less adaptive strategies than younger students. Older students also used more self-blame and tension reduction strategies than younger students (Frydenberg & Lewis, 1993b). Similarly, developmental increases were found on rumination and aggression from 8 to 14 years old (Hampel & Petermann, 2005).

The study with Turkish children and adolescent regarding age differences found that 7th and 8th graders had higher score for anger related emotion regulation than 4th through 6th graders. 7th and 8th graders also reported higher scores in media use coping strategy than 5th and 6th graders. There were no significant age differences regarding problem solving, social support, avoidant coping and palliative emotion regulation (Eschenbeck et al., 2012). However in another adaptation study of Coping Across Situations Questionnaire, 9th graders were found to use more avoidant strategies than 11th graders and no significant age differences were found for approach coping (Öngen, 2006).

In the review of literature on coping research for developmental pattern, Fields and Prinz (1997) stated that children through adolescence use continuously changing series of coping strategies to handle stressful experiences in their lives. Reviewed studies indicated that findings in the use of coping strategies from childhood to

adolescence shows mixed results. While some studies showed a decrease in the use of problem solving, behavioral and cognitive avoidance strategies through adolescence, others demonstrated an increase in the use of these coping strategies. Findings were also pointed to primary school children (aged 8 to 12) and adolescents (aged to 13 to 18) used specific coping strategies for specific stressful events. Thus, mixed results for coping strategies on developmental stages may arise from different type of stressors, different definitions for developmental stages and broad categories of strategies.

1.1.5.3. Culture and Coping

Culture is one of the factors that might affect individual's choice of coping strategies. Depending on cultural and societal context that exist in community, different patterns of coping may be observed (Frydenberg, 2008). Despite culture comprise values, beliefs, norms and other shared elements; research has been conducted mostly in individualism and collectivism (Chun, Moos, & Cronkite, 2006). Yeh, Arora, and Wu (2006) theorized that individualistic cultures may use active, problem focused coping strategies arising from their value on independence and autonomy. In comparison, collectivist cultures may use coping strategies that adjustment to situation rather than changing it (Yeh et al., 2006). Consistently, Chun et al. (2006) reviewed studies and concluded that adults and children of collectivistic cultures prefer to use passive, avoidant, or emotion-focused coping more than individualistic cultures. While individualistic cultures prefer to use problem-solving and active coping strategies.

Similar results found in Jerusalem and Schwarzer's (1989) study. In that study, coping strategies were compared between Germans and Turkish people living in Germany. The authors found that Germans chose to use more problem-focused coping strategies, whereas Turkish people chose to use more emotion-focused coping strategies.

Differences in adolescent coping across cultures were also examined. In the study by Griffith, Dubow, and Ippolito (2000), African-American students had higher scores for approach coping than Caucasian students; also they used more avoidant

coping than Caucasian and Hispanic students. However, sample sizes between groups were not equal; most of the participants were primarily Caucasian.

There is also cultural difference in social support seeking coping strategy. Asians and Asian Americans were found to be more reluctant to ask for help directly than European Americans (Kim, Sherman, Ko, & Taylor, 2006).

Coping strategies in different cultures may have different function in reducing emotional distress. Therefore, on the basis of these cultural differences in individuals' choice for coping strategies, it will be more reliable and valid to develop a new coping strategy scale proper to Turkish culture rather than adapt it from other cultures.

1.1.6. Limitations of Existing Coping Scales for Children and Adolescents

In the literature, numerous instruments have been developed to measure coping with stress for children and adolescents. Researchers have developed questionnaires, observational measures and interviews. However, many critiques have been done for existing measures regarding their limitations (Compas et al., 2001). The common criticism have been done for weak psychometric qualities, unstable factor structure, unclear items, process of item generation, unrepresentative samples and neglect of cultural sensitivity (Compas et al., 2001). Current study focused on the development of a self-report measure of children and adolescents coping, therefore limitations of self-report coping scales for children and adolescents were addressed.

One of the important criticisms have been made for coping measures for children that many coping measures have been derived from adults' coping measures without little or no modification (Compas et al., 2001; Ryan-Wegner, 1992). The matter for that is that children and adults may have different stressor or difficulties in their lives therefore coping strategies for adults may not represent children's coping strategies (Ryan-Wegner, 1992). In addition, developmental level of children's cognitive and social competencies may not be adequate to use adult's coping. Because of their

dependency to parents, they may lack of power to control the situations (Fields & Prinz, 1997). Thus, developmental differences should be considered in the development of coping scales for children and adolescents. This may occur with conducting focus group interviews with children and adolescents rather than generating theoretically driven items. Item generation process was often disregarded on psychometric literature, but which is a critical step on scale development (Rowan & Wulff, 2007).

Another criticism is that unstable factor structure in coping measures. For instances Kidcope, which has been widely used children coping scale, resulted in different subscales of coping with different stressors (Compas et al., 2001). In addition, factor analysis of Kidcope with different population composed inconsistent results that vary from one to four factor solutions (Hernandez, Vigna, & Kelley, 2010).

Quality of items also causes lack of clarity and openness to different interpretations. Some coping items include more than one strategy or statement in a single item. For example, in Coping Across Situations Questionnaire by Seiffge-Krenke & Shulman (1990), the item “I talk straight away about problems when they appear and do not worry about them.” involves more than one statement. An individual can talk about problems but also still have worries. Thus, children may have difficulty in determination of response and the item may not measure clearly what intended. In addition, conceptually different items were placed under the same subscale. For instance, Kidcope item (Spirito, Stark, & Williams, 1988) “I talked about how I was feeling; yelled, screamed or hit something.” includes both adaptive and maladaptive strategies. Talking about problems may function as a social support; on the other hand yelling and screaming are more related to emotional expression in an aggressive way. Because of the above reasons, each coping item should have enough clarity not to cause ambiguity.

Some existing scales have too broad categories which many distinct coping strategies were grouped under a single category. For instance, in Turkish version of CASQ there are two factors, approach and avoidant coping (Öngen, 2006) which are

very simple to represent the variety and the sophistication of coping (Aldwin, 2007). Likewise, Coping with School-related Stress Questionnaire by Wrzesbiewski & Chylinka (2007) has three factors: task-oriented, emotion-oriented and avoidance-oriented coping. Emotion-oriented subscale actually includes self-blame, aggression, social support, positive focus, and wishful thinking coping strategies. Similarly, Life Events and Coping Inventory by Dize-Lewis (1988) has a stress-recognition subscale which comprises of the items such as “Clean my room or rearrange”, “Scream”, “Get advice from someone”. These items seem to indicate distinct strategies. In a similar manner, many existing scales include avoidance-denial and distraction coping in one category (Compas et al., 2001). However, studies showed that these strategies have different effects. While avoidance-denial coping increases negative thought and distress, distraction is related with less distress. Because of these reasons, placing many different coping in one factor provides limited information, makes hard to generalize findings and to use such information in clinical practice. Thus, specific coping categories may provide more comprehensive information about implications of coping strategies for research and clinical benefit.

The other critique for existing coping scales in children and adolescents is the psychometric properties. Compas et al., (2001) reviewed the properties of mostly used questionnaires. Internal consistencies of scales have ranged from .45 to .91 for primary scales, from .36 to .89 for secondary scales and with most falling between .60 and .85. Test-retest reliability is ranged from .41 to .83 in 1 week interval, and from .57 and .91 in 2 to 3 week interval. But test-retest reliability was measured for only 7 of 22 scales. The study with using CASQ in Turkish adolescents found questionable and poor internal consistencies (total $\alpha = .65$, approach coping $\alpha = .69$, avoidant coping $\alpha = .57$ and there is no test-retest reliability) (Öngen, 2006). Low internal consistencies may be due to one-two item in one factor (e.g. Kidcope) or lack of homogeneity in coping subscales (Compas et al., 2001). Generally, coping measures can meet minimum criteria for reliability but the major problem is that many coping measures' reliability values are not available (Compas et al., 2001). In addition to reliability, construct validity was measured for 10 of 22 scales. Concurrent validity is expected to be at least .70 if scales

do not have poor quality, but .50 is expected for poor quality scales. Newly developed instrument should have the lowest value for Cronbach's alpha of .70 (Nunnally & Bernstein, 1994).

Some coping measures were not generated empirically but based on theoretical model. For instance, factor structure of Coping Response Inventory-Youth Form (Ebata & Moos, 1991) was extracted theoretically and factor analysis was not conducted. Even though theoretically derived measures have conceptual integrity, their psychometric qualities are not sufficient due to unavailable empirical validation (Parker & Endler, 1992).

In order to measure the coping strategies, children and adolescents were asked to respond to real life situations or hypothetical situations defined by researchers. For instance, in the Turkish adaptation of Stress and Coping Questionnaire for Children and Adolescents (SSKJ 3–8), children were asked to respond for having an argument with friend and having problems completing homework (Eschenbeck et al., 2012). On the other hand, self-identified stressors were asked to respond how they cope (e.g. Brodzinsky et al., 1992) and both personal and standard stressors were asked (e.g. Kidcope). The benefit of asking children how they cope with specified situation is that all participants respond to same stressor and improves internal validity, but problems occur regarding to accuracy and honesty of responses (Schwarzer & Schwarzer, 1996). Children and adolescents may have never experienced the hypothetical situation or may not perceive the situation stressful, therefore their responses for coping strategies may not represent actual coping strategies. In addition, it may be hard for younger children to think about situations they have never been because of their limited abstract thinking (Knapp, Stark, Kurkjian, & Spirito, 1991). Moreover, the scales that require responding specific situation cannot generalizable across different situations. Therefore, it may be more beneficial to ask how to cope with real life stressors which are more relevant to children and adolescents.

Another significant limitation of existing coping measurement is the disregard of cultural factors which stressful events and coping strategies may influenced on (Chun et al., 2006). The use of certain coping strategies may be unfavorable or acceptable by cultural values and norms (Lazarus & Folkman, 1984). Therefore, coping scales that developed as considering own cultural and social background may represent actual coping strategies better.

Lastly, many coping scales for children and adolescents had been developed for limited age range. For instance, 10 to 16 year old (Hernandez et al., 2010); 12 to 18 year old (Ebata & Moos, 1991); 8 to 12 (Ryan-Wegner, 1990); 9 to 15 (Eschenbeck et al., 2012); and 14 to 18 (Öngen, 2006). Therefore existing coping scales are not representative for all age groups.

1.2.The Significance of the Study

Coping with stress in children and adolescent is an important concept in research and clinical practice. Conceptualization of children's coping was mostly obtained from models of adult coping. However, child coping skills may not resemble adult coping in many aspects. Children and adolescents' cognitive, social, emotional developmental aspects may limit their coping responses (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001; Fields & Prinze, 1997). Thus, applying adult coping to children and adolescent coping needs some modification and extension.

In the literature of coping research, there are many assessments that measures coping strategies for children and adolescents. However, most of them have various limitations such as the process of item generation, lack of developmental component, psychometric properties and the neglect of culture. Thus, there is a need of culturally-sensitive, comprehensive and psychometrically sound coping with stress scale for children and adolescents in Turkish population as considering the limitations of existing coping measurements.

In the literature, there is no available coping scale for children and adolescents that developed specifically for Eastern culture or Turkish culture. The standardized scales for Turkish children and adolescents do not meet requirements sufficiently because of low psychometric properties, broad classification of coping, neglect of cultural effect on coping strategies and limited age range (e.g. Eschenbeck, Heim-Dreger, Tasdaban, Lohaus, & Kohlmann 2012; Öngen, 2006). Considering the limitations of existing measures of coping, CACSS is aimed to be a psychometrically sound self-report measure based on critical reviews (Sveinbjornsdottir & Thorsteinsson, 2008; Worthington & Whittaker, 2006).

CACSS is expected to be useful for research and clinical purposes. Regarding research benefit, coping is important mediator on “self-regulation of emotion, cognition, behavior, physiology and environment” (Compas et al., 2001). Thus, research findings may provide significant information on nature and function of coping and its relation with mental health and well-being. Also, the research had been conducted with existing coping scales that have low psychometric properties or other limitations, concludes limited results. In addition, CACSS can be used to assess the effectiveness of intervention program. Moreover, scale development procedure of CACSS as including both qualitative and quantitative methodology will be beneficial for future scale development studies not only in coping research but also for various domains in Turkish literature.

In the context of clinical benefit, by the help of CACSS, it can be developed psycho-education groups to teach adaptive coping strategies. Effective coping strategies can be taught to children and adolescents that can serve as both protective and preventive action for development of psychopathology. Through CACSS, children and adolescents’ maladaptive coping strategies can be identified. In this way, individual and group psychotherapies can work on these strategies to change them more useful coping strategies for dealing with their problems and regulating their emotions. In addition the relation between coping strategies of different clinical populations and their

symptomatology can be understood. For these clinical and research benefits, CACSS is expected to contribute to literature and the field.

Because of the reasons mentioned above, there is a need to develop culturally-sensitive scale that will contribute to literature. Unlike other measures of coping strategies developed for and tested on Western samples, the CACSS takes into account cultural differences. Despite CACSS data were collected in Istanbul because of practical reasons; it is believed to represent Turkish population because of cosmopolitan characteristic of the city. CACSS is developed specifically for Turkish population but more generally for Eastern culture. In addition, CACSS can be used universally because existing coping scales based on Western culture were used in the development of CACSS.

1.3. Aim of the Study

The aim of the current study is to develop reliable and valid scale that is proper to Turkish culture and measures coping with stress in children and adolescents between the ages of 9 and 18 in Turkish population. Developing a comprehensive, culturally-sensitive and psychometrically sound coping scale for children and adolescents will be useful as it will contribute to literature and clinical practice.

This study will address following research question:

1. What is the factor structure of children and adolescents coping with stress scale (CACSS)?
2. Does CACSS evidence adequate reliability and validity in sample of Turkish children and adolescents?
3. Are there any significant differences in gender on coping strategies?
4. Are there any significant differences in age-groups on coping strategies?

CHAPTER 2

METHOD

2.1. Design

The study design includes both qualitative and quantitative methodology. Qualitative data collected through focus groups and expert review were used in item generation and scale revision. Quantitative data were collected during the preliminary and the final scale administration and were used to establish factor structure, reliability and validity of CACSS and its relation with gender and age-groups.

The CACSS was developed in accordance with scale development steps recommended by DeVellis (2012) and Fishman and Galguera (2003). Table 2.1 shows the scale development procedure for the CACSS.

2.2. Participants

2.2.1. Focus Group

A total of five focus groups were conducted. Focus groups consisted of between 5 and 8 numbers of participants in accordance with recommendation (Heary, & Hennessy, 2002). Gender equality between participants was considered. All participants were selected with convenience sampling. Each of the groups was composed as follows:

Group A: Participants (n=6) were selected from 3rd and 4th graders that attend Cumhuriyet Primary School. The group included 3 females and 3 males.

Group B: Participants (n=6) were selected from 5th and 6th graders that attend Kuleli Secondary School. The group included 3 females and 3 males.

Table 2.1: Scale development procedure

Development Phase	Scale Development Steps
Planning	<ul style="list-style-type: none"> - Concept Clarification - Determined the purpose of CACSS - Conducted a literature review about theories and scales of coping strategies
Construction	<ul style="list-style-type: none"> - Generated an item pool based on <ol style="list-style-type: none"> 1) existing coping scales 2) focus group - Conducted expert reviews of all items for content validation - Reduced item pool based on rational approach as keeping the best description of similar statements and feedback from the expert reviews
Qualitative Evaluation	<ul style="list-style-type: none"> - Conducted content analysis for focus group interview
Quantitative Evaluation	<ul style="list-style-type: none"> - Conducted preliminary study for analysis of structure via principal component analysis - Reduced item pool based on analysis result and expert review - Conducted a final administration of reduced items and factors to different sample - Assessed the reliability (internal consistency, test-retest reliability) - Assessed the validity (construct validity, convergent and discriminant validity) - Conducted MANOVA to test gender and age-group differences for each coping subscale.

Group C: Participants (n=6) were selected from 7th and 8th graders that attend Kuleli Secondary School. The group included 4 females and 2 males.

Group D: Participants (n=8) were selected from 9th and 10th graders that attend Adile Mermerci Anatolian High School. The group included 4 females and 4 males.

Group E: Participants (n=5) were parents who have child aged between 9 and 18. They are selected from Bahçeşehir University personnel (i.e. academicians, administrative staff, auxiliary staff). The group included 3 females and 2 males.

2.2.2. Preliminary Study

Preliminary study conducted in 3 schools in different districts of Istanbul representing various socioeconomic status: Cumhuriyet Primary School, Kuleli Secondary School and Adile Mermerci Anatolian High School. 680 participants (M age = 13.71, SD = 2.77) included in the study and their age range was 9 to 18. The demographic characteristics of the participants were presented in Table 2.2. Preliminary sample were only given to complete the preliminary version of CACSS.

2.2.3. Final Study

Final study conducted in 3 public and 1 private schools in different districts of Istanbul representing various socioeconomic status: Cumhuriyet Primary School, Kuleli Secondary School, Adile Mermerci Anatolian High School and Bahçeşehir College. Students participated to preliminary study were not included to final study. 664 participants (M age = 13.62, SD = 2.85) included in the study and their age range was 9 to 18. Reflecting important developmental transitions, participants were subdivided into middle childhood including 9 to 11 years old; early adolescence 12 to 15 years old; middle adolescence 16 to 18 years old (age distinction in accord with Shaffer, & Kipp, 2014). The demographic characteristics of the participants were presented in Table 2.3. Final sample were given to complete final version of Children and Adolescents Coping with Stress Scale (CACSS), The Strengths and Difficulties Questionnaire (SDQ) and Stress and Coping Questionnaire for Children and Adolescents (SSKJ 3–8).

Table 2.2: Demographic characteristics of the participants of preliminary study

	<i>N</i>	<i>%</i>
Gender		
Female	372	54.8
Male	307	45.2
School		
Cumhuriyet Primary School	128	18.8
Kuleli Secondary School	253	37.2
Adile Mermerci Anatolian High School	299	44.0
Age Group		
9-11	187	27.5
12-15	283	41.6
16-18	210	30.9
Grade		
3 rd	59	8.7
4 th	69	10.1
5 th	58	8.5
6 th	77	11.3
7 th	60	8.8
8 th	58	8.5
9 th	83	12.2
10 th	67	9.9
11 th	68	10.0
12 th	81	11.9
Mothers' Education Level		
None	28	4.3
Primary School	209	31.9
Secondary School	174	26.6
High School	165	25.2
University	66	10.1
Graduate School	13	2.0
Fathers' Education Level		
None	12	1.8
Primary School	130	20.0
Secondary School	184	28.3
High School	202	31.0
University	98	15.1
Graduate School	25	3.8

Table 2.3: Demographic characteristics of the participants of final study

	<i>N</i>	<i>%</i>
Gender		
Female	335	50.6
Male	327	49.4
School		
Cumhuriyet Primary School	106	16.0
Kuleli Secondary School	161	24.2
Adile Mermerci Anatolian High School	175	26.4
Bahçeşehir College	222	33.4
Age Group		
9-11	184	27.7
12-15	256	38.6
16-18	224	33.7
Grade		
3 rd	70	10.5
4 th	60	9.0
5 th	64	9.6
6 th	70	10.5
7 th	63	9.5
8 th	56	8.4
9 th	54	8.1
10 th	76	11.4
11 th	84	12.7
12 th	67	10.1
Mothers' Education Level		
None	18	2.8
Primary School	106	16.8
Secondary School	120	19.0
High School	182	28.8
University	165	26.1
Graduate School	41	6.5
Fathers' Education Level		
None	3	.5
Primary School	76	12.0
Secondary School	119	18.8
High School	187	29.6
University	174	27.5
Graduate School	73	11.6

2.3. Materials

2.3.1. Children and Adolescents Coping with Stress Scale (CACSS)

Children and Adolescents Coping with Stress Scale (CACSS) is developed for the purpose of the current study. CACSS is a self-report measure that assesses children and adolescents' coping strategies in the context of self-identified stressors (See Appendix 1) Participants are asked to identify 3 stressful events that they experienced in last year (See Appendix 1 for full instruction). Then they are asked to rate on 5-point likert scale (1=Never suitable, 2=Not suitable 3=Not sure, 4=Nearly suitable, 5=Totally suitable) how much the coping strategy is suitable for them to deal with the self-identified stressors. The higher score values indicate greater use of that coping.

2.3.2. The Strengths and Difficulties Questionnaire (SDQ)

The Strengths and Difficulties Questionnaire (SDQ) used in this study for the purpose of determining the construct validity of CACSS. SDQ, is developed by Goodman (1997), which is a behavioral screening questionnaire that can be completed by the parents and teachers of 4-17 years old and children/adolescents of 11-17 years old. Parent form of SDQ was used for 3rd and 4th graders and self-rated form was used for 5th – 11th graders (See Appendix 2).

Turkish adaptation was done by Güvenir et al. (2008). SDQ consist of 25 items which has 5 subscales: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behavior. Items are rated on 3-point scale (0=not true, 1=somewhat or sometimes true, 2= very true or often true). Each subscales scores are assessed separately, at the same time 'total difficulty score' is calculated with sum of first four subscales (except prosocial behavior subscale). Total difficulty score is ranged from 0-40 that higher scores show more difficulty level. For parent form Cronbach's alpha was found .84 for total difficulty score, .73 for emotional symptoms, .65 for conduct problems, .80 for

hyperactivity/inattention, .37 for peer relationship problems, .73 for prosocial behavior. For adolescent form Cronbach's alpha was found .73 for total difficulty score, .70 for emotional symptoms, .50 for conduct problems, .70 for hyperactivity/inattention, .22 for peer relationship problems, .54 for prosocial behavior. The results showed that SDQ had a high internal consistency except the peer relationship problem scale (Güvenir et al.2008).

Concurrent validity was measured as comparing with Child Behavior Checklist (CBCL) / Youth Self Report (YSR). Emotional symptoms and conduct problems of SDQ were corresponded with internalizing and externalizing symptoms of CBCL. Correlation between 'emotional symptoms' and 'internalizing symptoms' was found .72, correlation between 'conduct problems' and 'externalizing symptoms' was found .75. (Güvenir et al.2008).

2.3.3. Stress and Coping Questionnaire for Children and Adolescents (SSKJ 3–8)

Stress and Coping Questionnaire for Children and Adolescents (SSKJ 3–8) used in this study for the purpose of determining the convergent and discriminant validity of CACSS (See Appendix 3). SSKJ 3-8 is a coping strategy scale (Eschenbeck et al., Lohaus et al., as cited in Eschenbeck et al., 2012). Turkish adaptation was done by Eschenbeck et al. (2012). It is a stimulus-response inventory. Participants indicated on a 5-point rating scale (ranging from never=1 to almost always = 5), how often they used a variety of coping strategies in response to the following two common stressful situations: (1) the social stressor of having an argument with a friend and (2) the academic stressor of having problems completing homework. Aggregated stressor is a coping score across the two stressful situations (mean of both stressors). In this study, SSKJ 3-8 was asked to complete in response to their own stressors that they indicated.

SSKJ 3–8 consist of 36 coping items which has 6 dimensions: seeking social support, problem solving, avoidant coping, palliative emotion regulation, anger-related emotion regulation, media use. Cronbach's alpha values for seeking social support $\alpha=$

.79 for aggregated stressor, $\alpha_1 = .70$ for the social stressor, $\alpha_2 = .75$ for the academic stressor; problem solving $\alpha = .82$, $\alpha_1 = .77$, $\alpha_2 = .78$; avoidant coping $\alpha = .76$, $\alpha_1 = .68$, $\alpha_2 = .71$; palliative emotion regulation $\alpha = .81$, $\alpha_1 = .69$, $\alpha_2 = .81$; anger-related emotion regulation $\alpha = .85$, $\alpha_1 = .80$, $\alpha_2 = .83$; and media use $\alpha = .85$, $\alpha_1 = .78$, $\alpha_2 = .84$.

2.4. Procedure

2.4.1. Item Generation

The process of concept clarification and item development began with a review of existing literature to obtain background information on coping. In that study, coping was defined as “behavioral and cognitive efforts to terminate or reduce the tension caused by stressful situation regardless of whether the outcome is successful or not.” (Fleming, Baum & Singer, 1984). The purpose of CACSS is to measure children and adolescents’ coping strategies in the context of self-identified stressors.

The first step of scale development was to create an initial item pool. For that reason, the literature was reviewed for self-report coping scales used in children, adolescents and adults (see full list in Appendix 4). Key-words for search included various combinations of *coping scale*, *questionnaire*, *scale development*, *scale construction* on PsychINFO, Wiley Online Library and Google Scholar databases. The search was also restricted to scales that were in English and Turkish. Observational measures and self-reports that are based on parents’ response were excluded in this study. In addition, the items that assess coping within the context of specific domain (e.g., pain, bullying, illness etc.) were eliminated from the item pool. Because there are too many coping strategies scales in the literature and similarity of dimensions of adult coping and children/adolescent coping, the item pool was restricted to children and adolescents coping scales. The initial item pool was consisted of 834 items. These items were sorted into the factors by rational classification as taking into account original factor of items in the scales by the researchers in order to be refined. Items were reviewed by thesis supervisor for the clarity, content and theoretical relevance. Similar

items were refined as keeping the best description of the statement and redundant items were excluded.

Beside the review of existing coping scales in the literature, focus group conducted to generate new items. Each focus group interview lasted between 1 and 1.5 hours. Focus groups with students were done at their schools in quite room and interview with parents was done in their workplace in meeting rooms. The questions for children and parents (see Appendix 5 and 6) that used in focus group were created by the help of clinical experience of thesis supervisor with children and adolescents and by integrating interview questions used in the previous studies of coping measurement and scale development (Altshuler, Genevro, Ruble, & Bornstein, 1995; Band & Weisz, 1988; Güney, 1992; Ryan, 1989; Seiffge-Krenke, 1993). The focus group interviews were recorded with tape recorder and later it was transcribed for conducting content analysis. The most repeated coping strategies were added to the item pool. Focus group data (tapes and transcripts) was kept in a secure area at the office of the researcher. Upon completion of the study, the tapes will be deleted and destroyed.

2.4.2. Item Reduction

The items from existing coping scales and focus groups were combined and 202 numbers of items were constructed.

After refining of scales items and content analysis of focus group, remaining items were asked to two experts in child and adolescents psychology (1 clinical psychologist and 1 associate professor) to rate and review for their relevance and clarity/readability. Experts rated items' relevance on a 5-point scale from extremely irrelevant to extremely relevant and items rated 3-point and less eliminated from scale. Their open-ended feedback was also obtained. Based on feedback from expert review, the corrections and adjustments were done. In this way, the preliminary scale was reduced to 161 items and prepared for pilot administration.

2.5. Data Collection

The study was carried out during 2013-2014 spring semester at 3 public and 1 private schools. School selection for the study was based on convenience of schools for the researcher. However it was aimed to form a representative sample so the schools with different socioeconomic background were chosen from different regions of Istanbul. Before applying the questionnaires to schools, obligatory permission was gotten from Ministry of National Education (See Appendix 7). In addition, all research methods and questionnaires were approved by the Ethics Committee of Bahçeşehir University.

Questionnaires were applied in class during the school day by the researcher. Completion of the instruments took between 30 and 60 minutes that varied by age. Verbal instruction and necessary explanations were done by the researcher. Students were informed that their questionnaires would be kept confidential and anonymous. It was also explained that students had the right to withdraw from the study if they did not want to complete the questionnaires.

2.6. Data Analysis

2.6.1. Qualitative Analysis

The qualitative data from focus group interview and open-ended answers for self-identified stressors were analyzed using the Maxqda 11 qualitative software package. In this part of the data analysis process, firstly data were coded. Then data were organized by common themes or patterns (e.g. repeated or similar statements) by reviewing the relevant literature about stress resources and coping strategies of children and adolescents. In this way, main themes and sub-categories were formed. Responses and personal stories that digressed from the focus group questions were identified as not relevant.

A second review was done to combine the responses that not fit to any of the categories. For this reason, similar responses were aggregated and formed new category or they were combined with existing categories by expanding the content of categories.

2.6.2. Quantitative Analysis

The data was analyzed by using Statistical Package for Social Sciences 21 (SPSS). In order to examine the factor structure of Children and Adolescents Coping with Stress Scale (CACSS), principal component factor analysis was conducted. The internal consistency reliability was established using Cronbach's alpha coefficient and mean inter-item correlation. Test-retest reliability with two week interval was assessed through Pearson correlation coefficient. Convergent, discriminant and construct validity were assessed by Pearson correlation coefficient. Lastly, two-way MANOVA was conducted to evaluate gender and age-group differences for each coping subscale.

CHAPTER 3

RESULTS

3.1. Qualitative Analysis

In order to make a more detailed examination about the coping strategies that children and adolescents use, focus group interviews were conducted with children and parents. In these interviews 13 standard questions, the source of stress, their feelings in stressful situation, how they and other friends deal with stress were asked to children, adolescents and parents (see Appendix 5 and 6).

In addition, before the application of CACSS, children and adolescents were requested to write 3 stressful events that they experienced in the last 1 year. Then, they were asked to rate the items in response to self-identified stressors.

3.1.1. Meaning of Stress for Children and Adolescents

Children and adolescents attended to focus group interview responded to question for the meaning of stress as seen Table 3.1. Participants stated that they mostly prefer to say ‘depression’ (*bunalım*) and ‘distress’ (*sıkıntı*) for the stress.

Table 3.1: Frequency of meaning of stress for children and adolescents

Code	Frequency	Code	Frequency
Depression	7	Sadness	2
Distress	7	Misfortune	1
Anger	5	Disappointment	1
Fear	4	Surprise	1
Anxiety	3	Total	34
Excitement	3		

3.1.2. The Source of Stress for Children and Adolescents

Children and adolescents' responses for stressors in their lives were categorized in seven themes as seen Table 3.2. Academic stressors were found the most stressful things in total. Academic stressors were themes like 'exams', 'getting bad grade'. Peer related stressors were like 'having argument with friends', 'being mocked'. Family stressors were like 'arguments within family', 'not asking their opinion by parents'. Interpersonal stressors were like 'telling lies', 'being disrespectful'. Uncontrollable events were like 'illnesses, 'deaths'. Daily stressors were like 'being late', 'being in crowded place'. Performance related stressors were like 'giving a presentation', 'attending a competition'.

The source of stress for children and adolescents showed differences across age groups. For the 3rd and 4th graders, most stressful things are interpersonal stressors (35 percent); for 5th and 6th graders, academic stressors (53 percent), for 7th and 8th graders, peer related stressors (30 percent); for 9th and 10th graders, academic stressor (50 percent).

When parents were asked what their children find stressful, they told that academic stressors (exams, homework) and family stressors (restriction on freedom, argument with siblings) were the most stressful situations.

Table 3.2: Frequency of stressors for children and adolescents

Code	Frequency	Representative Quotes
Academic Stressors	43	“sınavdan düşük not almak”
Peer related Stressor	26	“arkadaşımın kavga etmek”
Family Stressors	15	“anne babamın kavga etmesi”
Interpersonal Stressors	14	“birinin yalan söylemesi”
Uncontrollable Events	11	“yakınlarımın vefat etmesi”
Daily Stressors	10	“gideceğim yere geç kalmak”
Performance Related Stressors	5	“başkalarının önünde sunum yapmak”
Total	124	

3.1.3. Children and Adolescents’ Expression of Stress

Children and adolescents were asked how they express their stress. Their responses for expression of stress are shown in Table 3.3. They stated that they usually express their stress as saying “I’m distressed” (*canım sıkılıyor*). Similarly, parents stated that their children express their stress as saying “I’m distressed” (*canım sıkılıyor*), “huff and puff” and as showing with their behaviors and gestures.

Table 3.3: Frequency of Expression of Stress by Children and Adolescents

Code	Frequency
I’m distressed (<i>Canım sıkılıyor</i>)	10
I’m in depression (<i>Bunalımdayım</i>)	3
"Huff and Puff"	3
I feel blue (<i>Moralim bozuk</i>)	2
Gesture and facial expression	2
Yelling	2
I’m in a tizzy (<i>Elim ayağım dolaştı</i>)	1
I won’t be able to do	1
I’m during exam week	1
I’m nervous	1
Total	26

3.1.4. Children and Adolescents' Feelings in Stressful Situations

Children and adolescents were asked how they feel in stressful situations. Their responses are shown in Table 3.4. Children and adolescents reported that they are mostly anger in stressful situations. Anxiety and fear are the other emotions that they feel mostly in stressful situations. According to parent views, their children mostly feel weak and incapable and blame others in stressful situations.

Table 3.4: Frequency of Feelings in Stressful Situations by Children and Adolescents

Code	Frequency	Code	Frequency
Anger	8	Hope	1
Anxiety	6	Nothing	1
Fear	5	Regret	1
Excitement	4	Self-hatred	1
Happiness	4	Weakness	1
Sadness	4	Total	39
Disappointment	3		

3.1.5. Children and Adolescents' Coping Strategies

Children and adolescents were asked different questions to learn what they do to feel better or solve the problem in stressful situations. Figure 3.1 shows the percentage of their use of coping strategies. 22 categories were constructed from the responses based on relevant coping literature. Children and adolescents reported that they use mostly tension reduction coping strategies such as 'watching TV', 'listening to music', 'playing video games', 'doing hobbies'. Second strategy they mostly apply was avoidant coping strategies such as 'sleeping', 'trying to forget', 'ignoring the problem'. Third coping strategy they mostly prefer to use was seeking social support such as 'sharing problems with family and friends'. Representative quotes for coping categories are shown in Table 3.5.

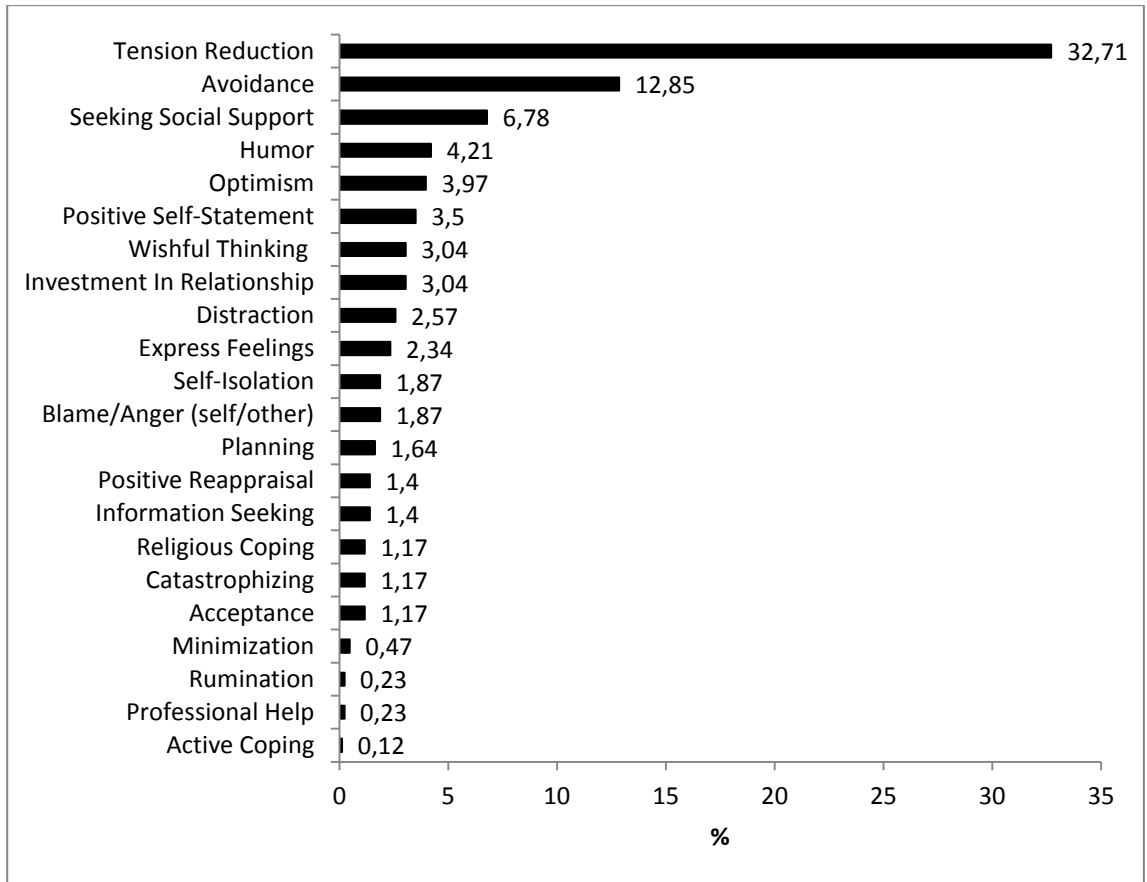


Figure 3.1: Frequency of use coping strategies by children and adolescents

Table 3.5: Examples for Coping Categories

Coping Category	Representative Quotes
Acceptance	<i>"Sabrederim."</i>
Active Coping	<i>"Niye böyle oldu diye düşünerek çözüm bulmaya çalışırım."</i>
Avoidance	<i>"Konuyu kapatırım."</i>
Blame/Anger (self/other)	<i>"Etrafına bağırarak, kızmak"</i>
Catastrophizing	<i>"Her şey daha kötü olacak gibi geliyor."</i>
Distraction	<i>"Dikkatimi başka yere veririm."</i>
Express Feelings	<i>"Günlük yazarım."</i>
Humor	<i>"Komik şakalar yaparım."</i>
Information Seeking	<i>"Araştırma yaparım."</i>
Investment In Relationship	<i>"Arkadaşımla vakit geçiririm."</i>
Minimization	<i>"Olayı büyütmem."</i>
Optimism	<i>"Daha kötüsü olabilirdi diye kendimi teselli ederim."</i>
Planning	<i>"Çözüm yollarını düşünürüm."</i>
Positive Reappraisal	<i>"Bundan ders çıkarmalıyım diye düşünüyorum."</i>
Positive Self-Statement	<i>"Geçmişte başardın, yine başarırısın diye kendime hatırlatırım."</i>
Professional Help	<i>"Psikologa, rehberlik servisine yönlendiririm."</i>
Religious Coping	<i>"Dua ederim."</i>
Rumination	<i>"Acaba öyle mi yoksa böyle mi yapsaydım diye düşünürüm."</i>
Seeking Social Support	<i>"Aileme derdimi anlatırım."</i>
Self-Isolation	<i>"Sessiz bir odaya geçip kendimi dinliyorum."</i>
Tension Reduction	<i>"Müzik dinlemek kafamı dağıtıyor."</i>
Wishful Thinking	<i>"Gözlerimi kapatıp güzel şeyler hayal ederim."</i>

Parents' views about how their children cope with stressful situations are shown in Figure 3.2. Similar to children and adolescents' own reports, parents also stated that their children use mostly tension reduction coping strategies such as 'playing computer games', 'watching TV' and 'eating dessert'. According to parents' statements, blame/anger coping strategies were the second mostly used by children and adolescents.

Children and adolescents' reported different coping strategies when it was asked how their peers deal with stress. Figure 3.3 shows children and adolescents' ideas how their peers deal with stress. They reported that other children and adolescents mostly use blame/anger coping strategies such as 'fighting', 'yelling', 'taking revenge', 'teasing others'. The other mostly used coping strategy of peers reported by children was tension reduction strategies. Similarly, when parents were asked how other

children/adolescents cope with stressful situations, they indicated that other children use mostly risk taking behaviors such as ‘smoking’, ‘drinking alcohol’ and ‘spending money intemperately’ and tension reduction strategies.

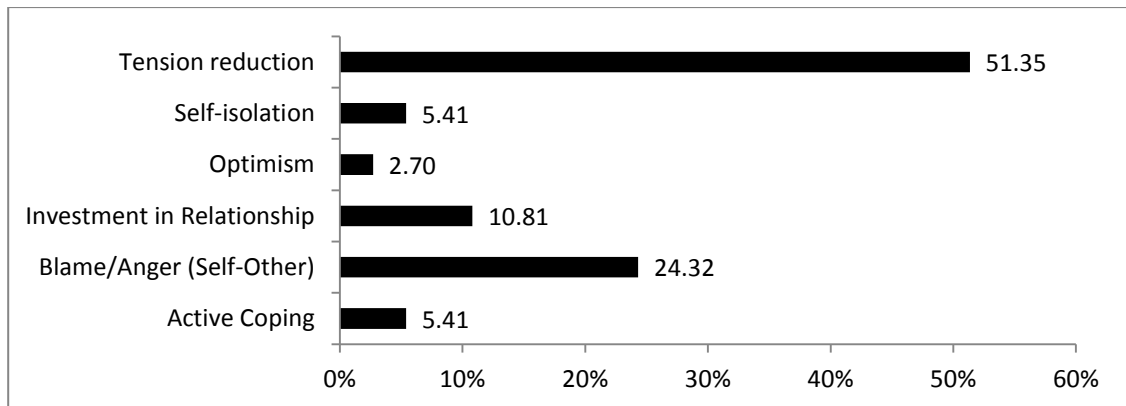


Figure 3.2: Frequency of use coping strategies of children/adolescents reported by parents

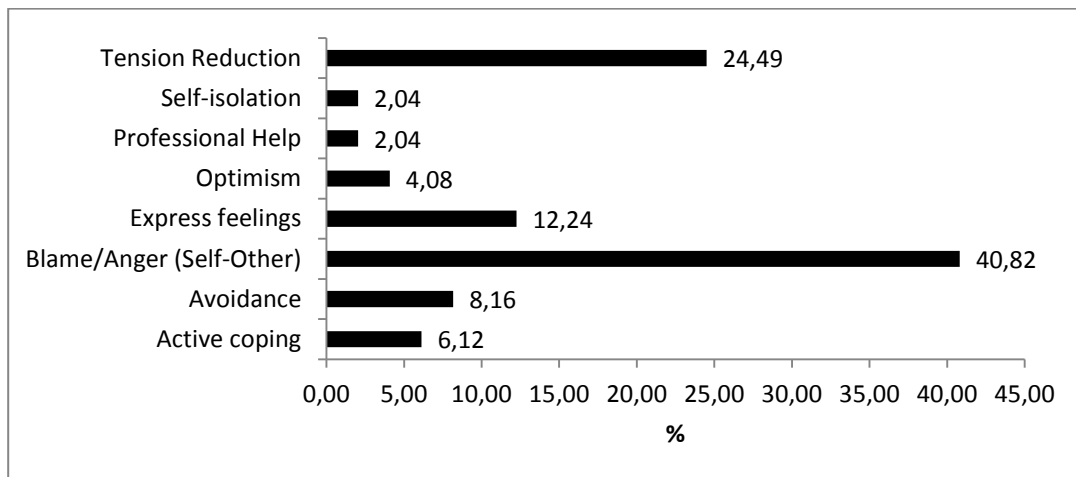


Figure 3.3: Frequency of use coping strategies of peers

Parents were also asked what they suggest to their children to deal with stress. They reported that they ask questions to their children to probe the problem and find a solution, do activities that their children enjoy and motivate them.

3.1.6. Type of Stressors

Children and adolescents' responses for self-identified stressors in their lives were categorized in 18 themes. Academic/Achievement related stressors included answers like getting a low grade, exams, giving a presentation and failure in competition, sports etc. School/Teacher related stressors were like dissatisfaction about school rules and orders and dislike of teacher's attitudes. Family stressors were like arguments within family, high pressure to succeed, non-fulfillment requests. Peer related stressors were like having arguments with friends, bullying and being excluded. Partner related stressors were arguments with partners in romantic relationship and not to have a romantic relationship. Family economic strain was about economic difficulties. Personal health stressors were own health problems such as illness and operations. Other's health related stressor were anxieties about relatives and friends' health problems. Separation/loss related stressors were death of loved one, moving to another place. Physical appearance related stressors include dissatisfaction about body image and dislike of physical appearance or some body parts. Dissatisfaction about personality includes dislike of some character traits such as shyness, being angry. Loneliness was related with distress of feeling lonely. Concerns for future were related ambiguities and anxieties for future. Daily stressors were like noise, being late, being in crowded place. Disasters related stressor were natural and other man-made disasters in Turkey. Social events were related about Gezi Park events, police violence and dissatisfaction in politics. Interpersonal stressors were related general dissatisfaction about other's attitude and personality characteristics such as telling lies, being disrespectful. Football related stressors were related dissatisfaction about favorite football team.

The percentages of common stressors across 3 stressful events were presented in Figure 3.4, Figure 3.5, and Figure 3.6 respectively.

Figure 3.4: The percentage of common stressors in the first event

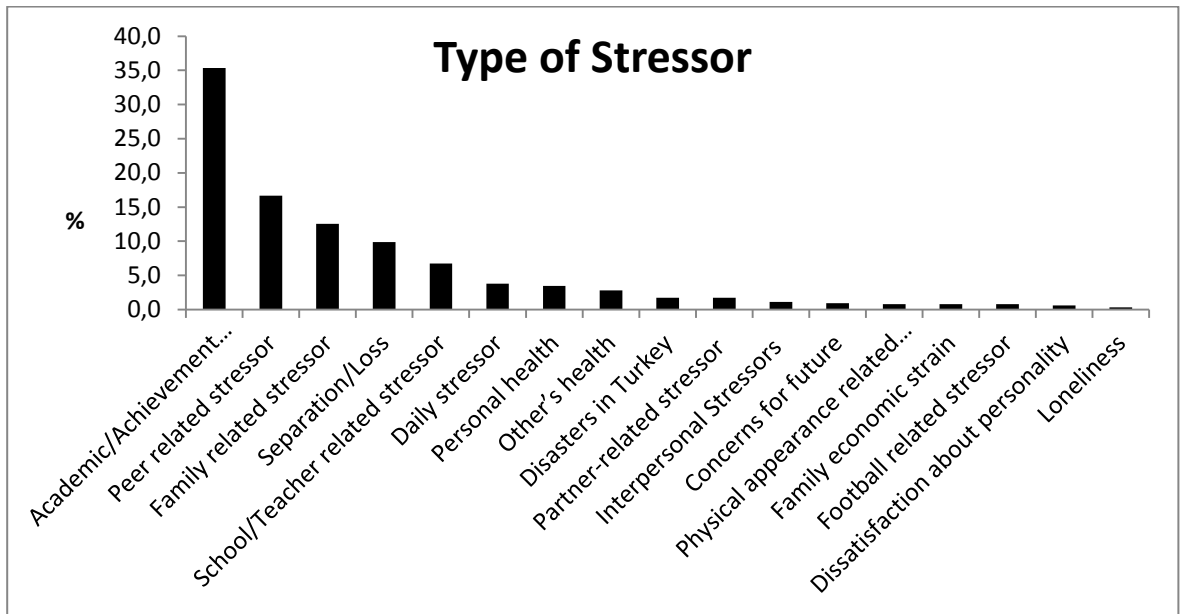


Figure 3.5: The percentage of common stressors in the second event

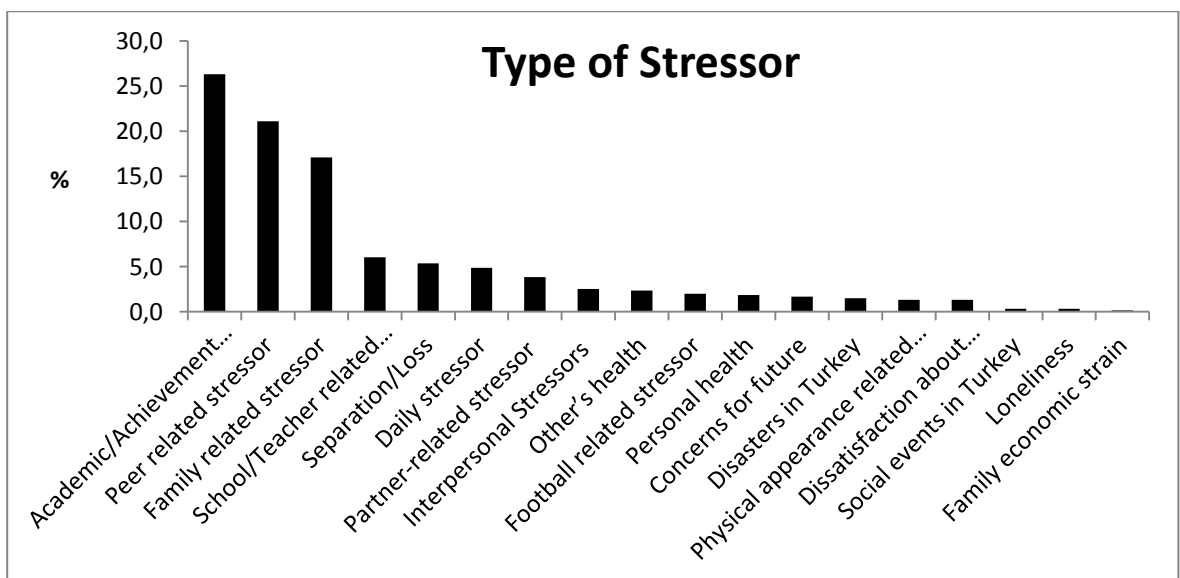
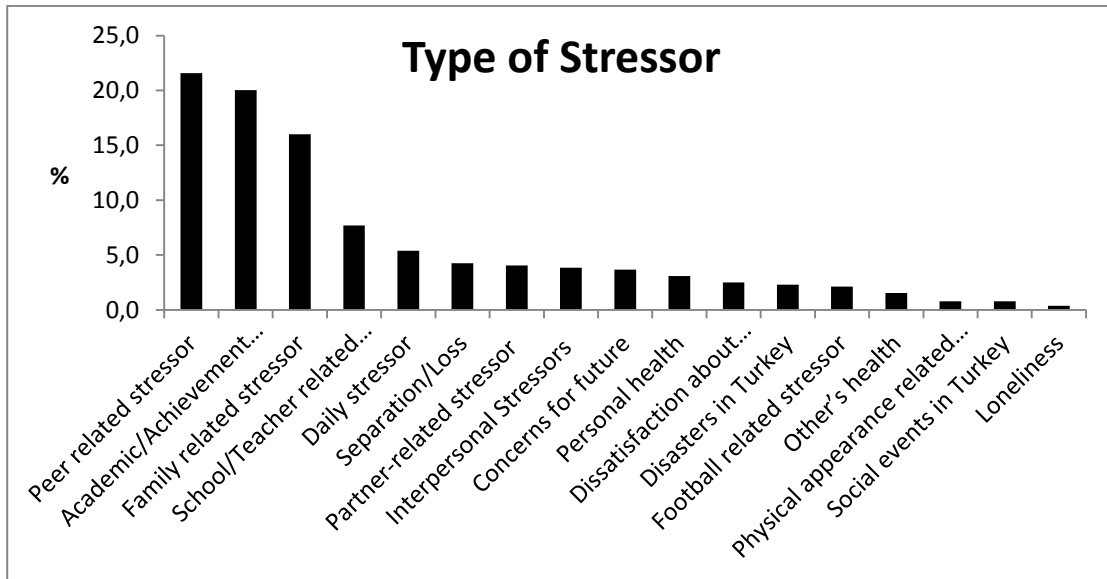


Figure 3.6: The percentage of common stressors in the third event



The most common stressors included academic/achievement related, peer related, and family related stressors. Then daily stressors, separation/loss and school related stressors were followed that.

Common stressors were also examined according to developmental stages. Figure 3.7, Figure 3.8, and Figure 3.9 shows common stressors in middle childhood for the first, second and third event respectively.

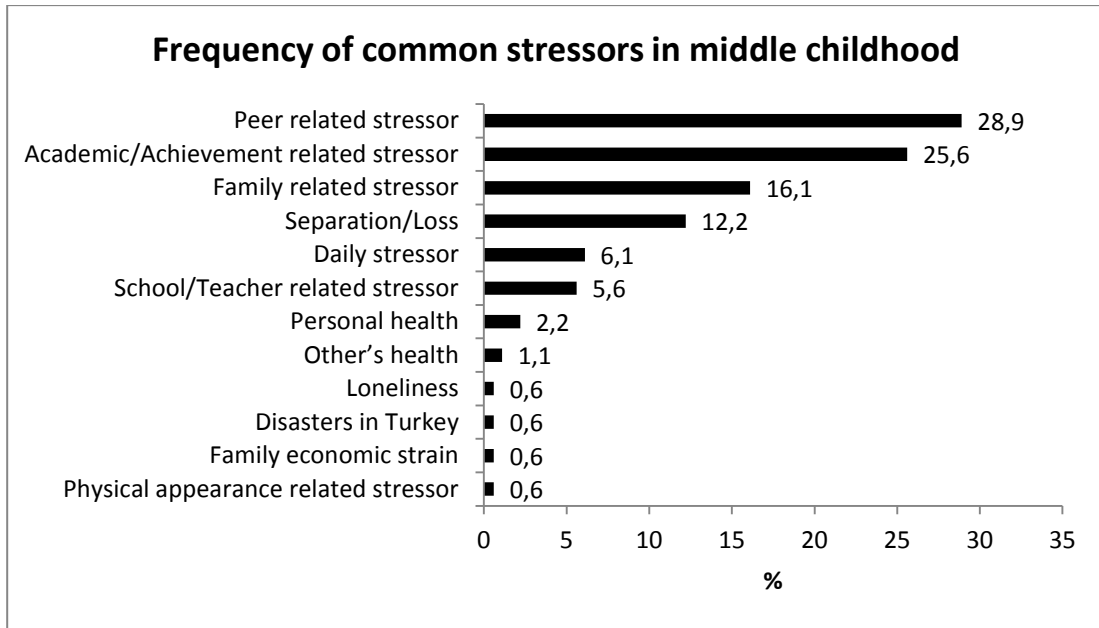


Figure 3.7: The percentage of common stressors in middle childhood in the first event

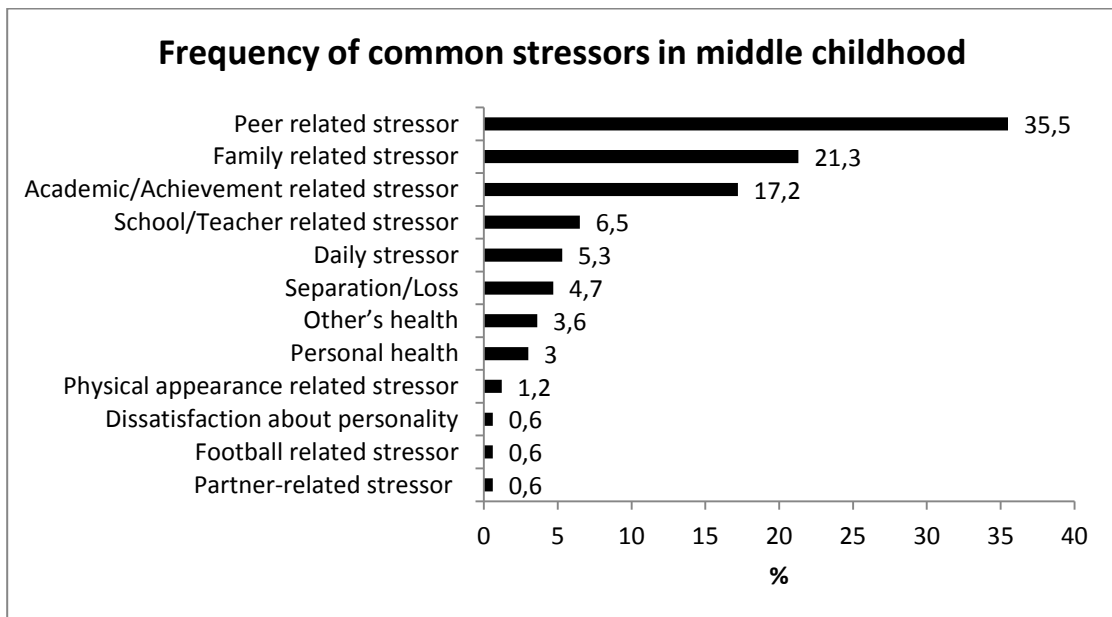


Figure 3.8: The percentage of common stressors in middle childhood in the second event

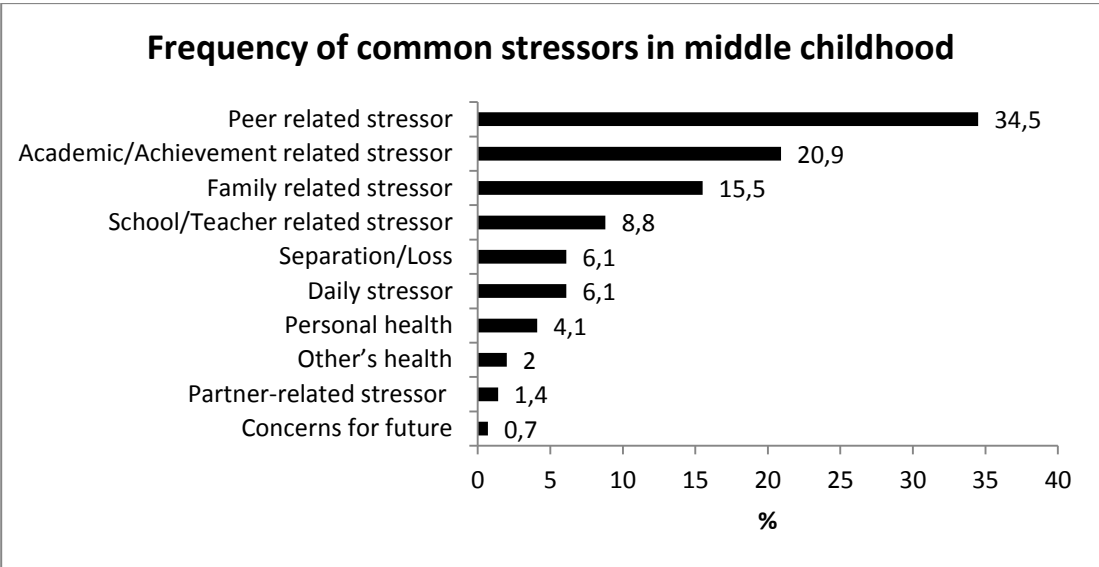


Figure 3.9: The percentage of common stressors in middle childhood in the third event

Figure 3.10, Figure 3.11, and Figure 3.12 shows common stressors in early adolescence for the first, second and third event respectively.

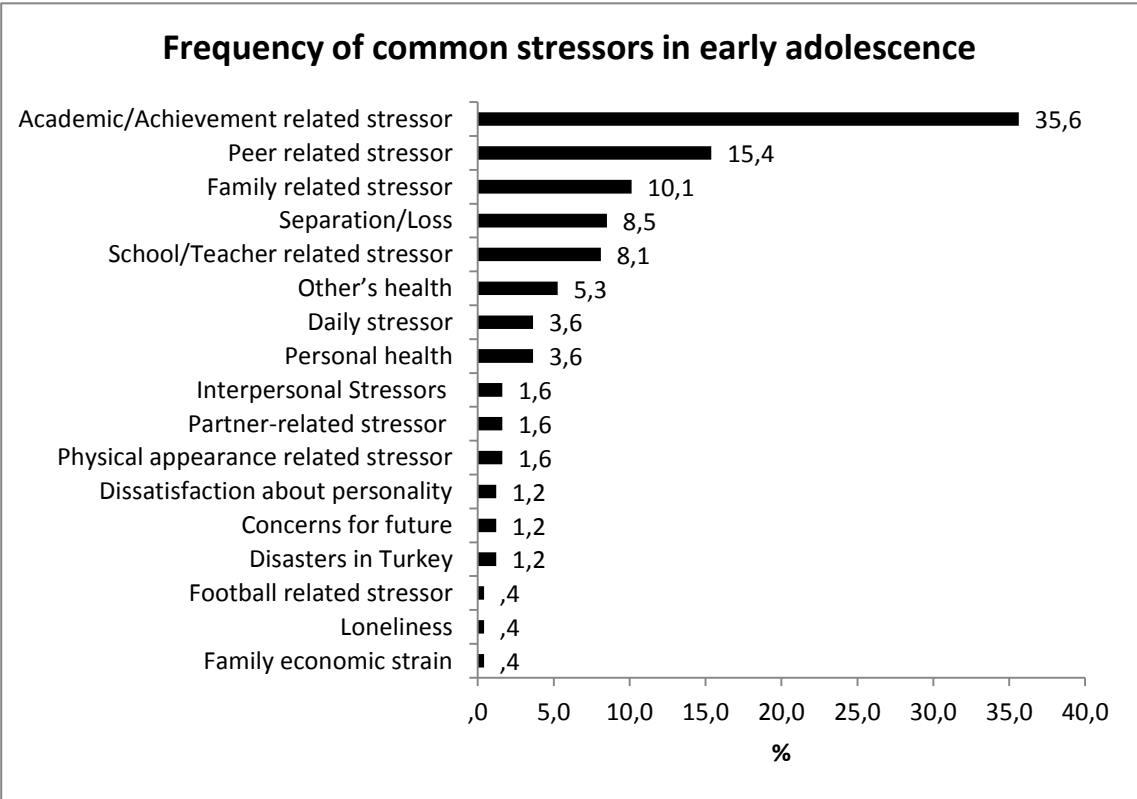


Figure 3.10: The percentage of common stressors in early adolescence in the first event

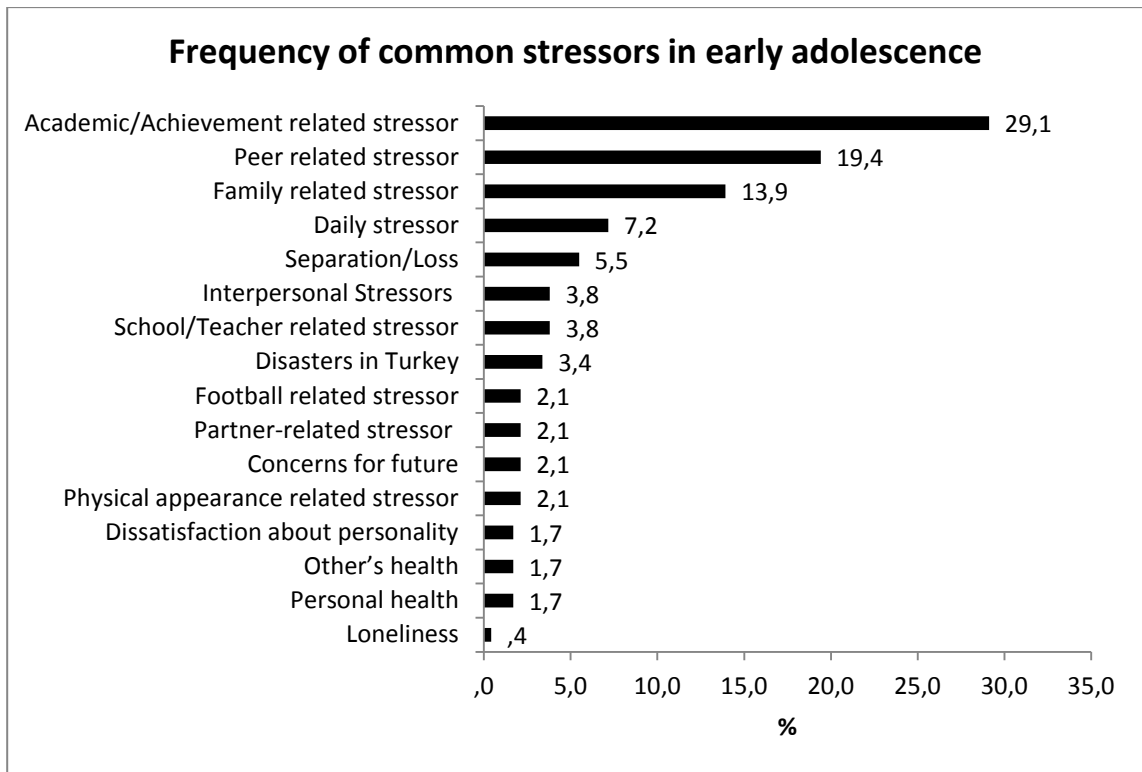


Figure 3.11: The percentage of common stressors in early adolescence in the second event

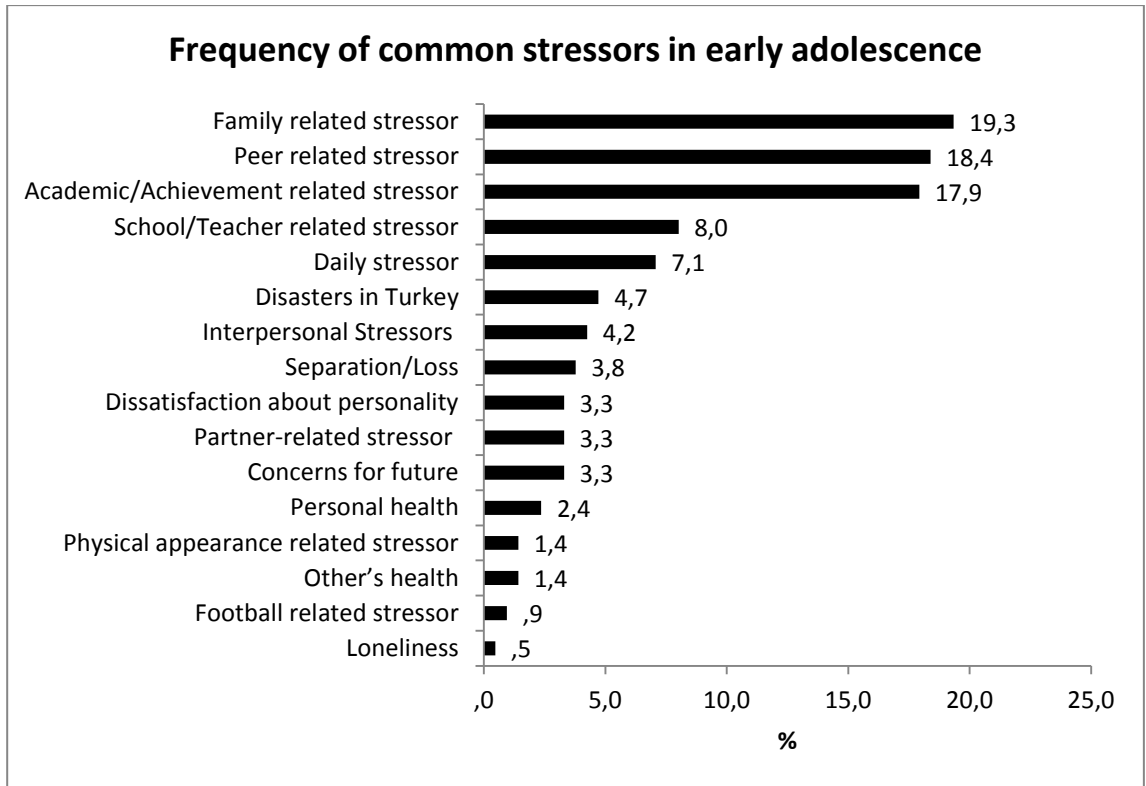


Figure 3.12: The percentage of common stressors in early adolescence in the third event

Figure 3.13, Figure 3.14, and Figure 3.15 shows common stressors in middle adolescence for the first, second and third event respectively.

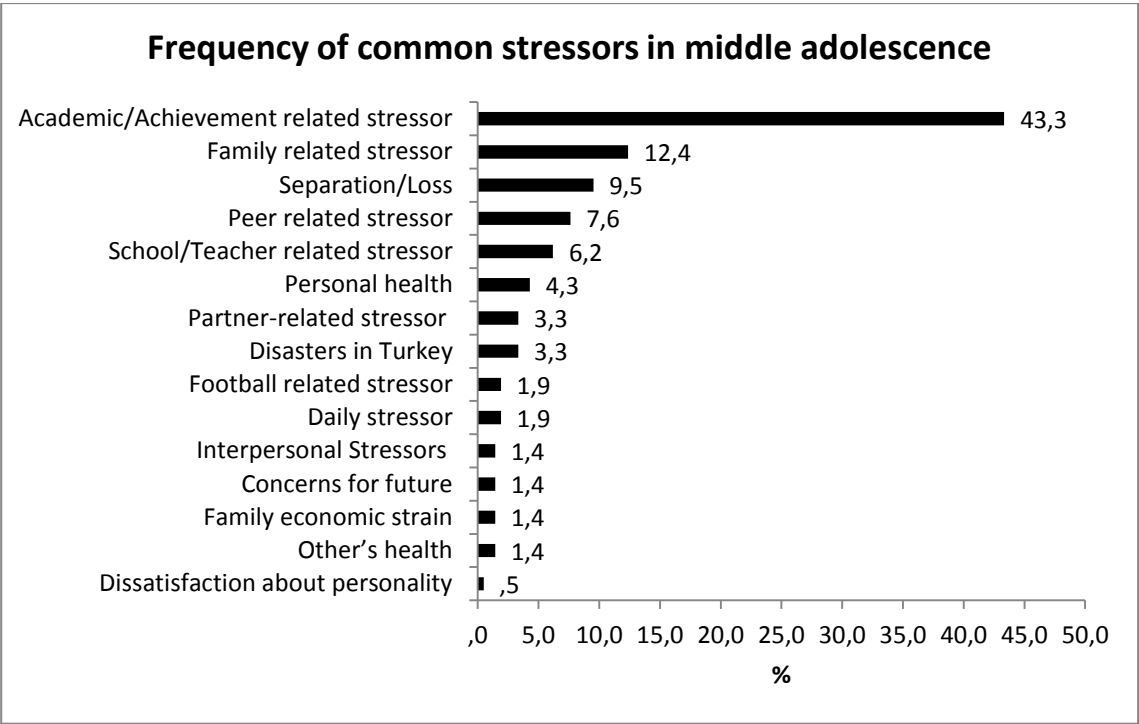


Figure 3.13: The percentage of common stressors in middle adolescence in the first event

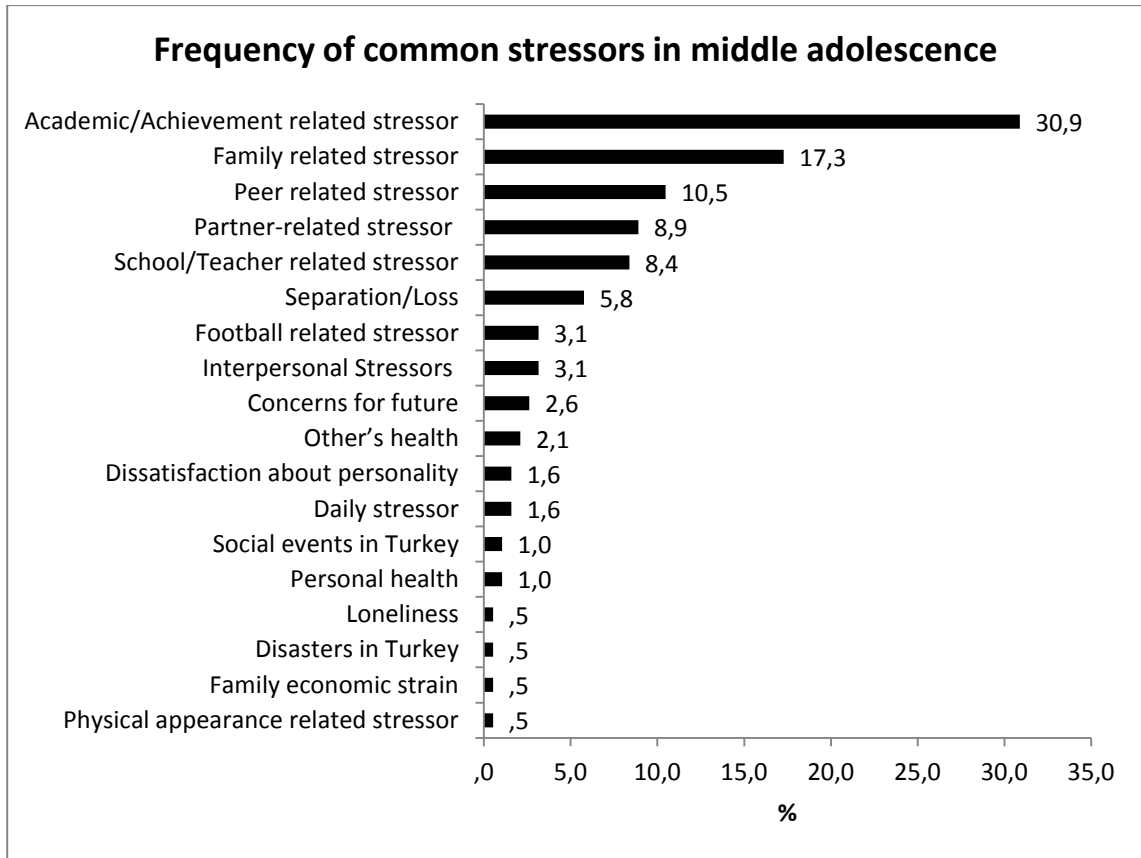


Figure 3.14: The percentage of common stressors in middle adolescence in the second event

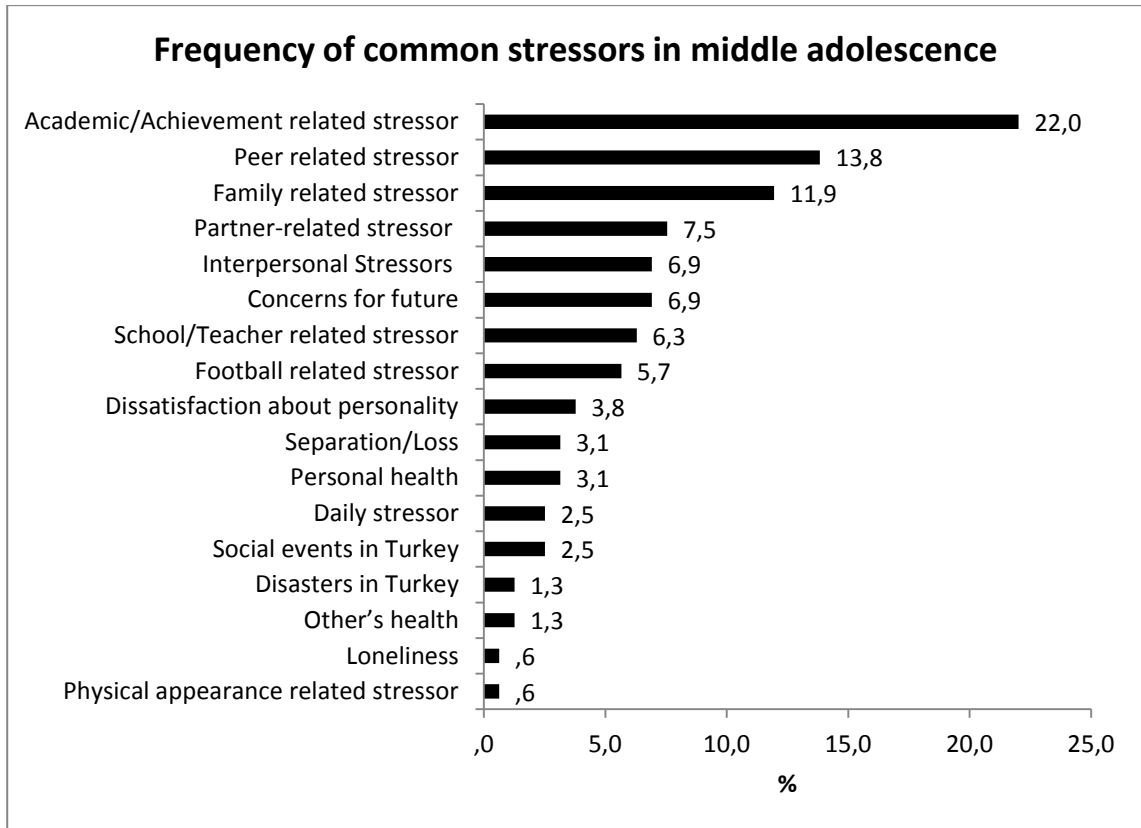


Figure 3.15: The percentage of common stressors in middle adolescence in the third event

3.2. Quantitative Analysis

3.2.1. Preliminary Study

Preliminary study was conducted for initial analysis of CACSS using pilot sample (n=680). The purposes of the preliminary study were to eliminate items that have poor empirical relevance using analyses and to get feedback about interpretation of items. Items that survived the initial analysis were included for further analyses using final sample (n=664).

3.2.1.1. Data screening and outlier analysis

Prior to analyses, data were checked and corrected for errors that any scores out of range. Then data were screened for missing values and multivariate outliers. Missing values defined as missing values and replaced with the item mean. There were not defined any univariate outliers. There were nine multivariate outliers defined using Mahalanobis distance, $\alpha=.01$. These outliers excluded from analysis, leaving a total sample size of 680.

3.2.1.2. Psychometric properties of initial CACSS

In order to reduce the number of items and examine factor structure of initial CACSS, Principal Component Analysis was conducted. Two empirical indices regarding data matrix confirmed that it was suitable for factor analytic procedures: Bartlett's test of sphericity was significant, $\chi^2 (12880) = 49393.65, p < .0001$ and Kaiser-Myer-Olkin (KMO) value was .90 meaning that perfect data for structure detection (Tabachnik & Fidell, 2013).

Criteria for initial item elimination included increase in Cronbach's alpha if item deleted and high inter-item correlations greater than .80 (Floyd & Widaman, 1995). Based on the above criteria, no items were eliminated. Corrected item-total correlation was not conducted, because CACSS does not give a total score.

A principle components analysis (PCA) with varimax rotation was carried out. Factor solutions were based on the following criteria: eigenvalues of 1.0 or greater (Kaiser, 1961), factors loadings of .40 or greater (Brown, 2006), a Scree test (Cattell, 1966) and the conceptual interpretability of factors (Worthington & Whittaker, 2006). Therefore the number of factors was estimated as conducting number of decisions rules until the most interpretable solution found (Ford, MacCallun & Tait, 1986).

Examination of scree plot (see Figure 3.16) did not give clear results. Therefore five to eleven factors were tested to find the most interpretable factor solution. Nine factor produced the clearest factor solution for 161 item and accounted for 36.66 % of the total variance. Cronbach's alpha reliability of 161 items was found to be .93. 60 items were deleted due to low factorial loading (< 0.40), 2 items were deleted due to increases in factor reliabilities. Cronbach's alpha reliability of the remaining 99 items was decreased to .91.

Figure 3.16: Scree plot of initial CACSS

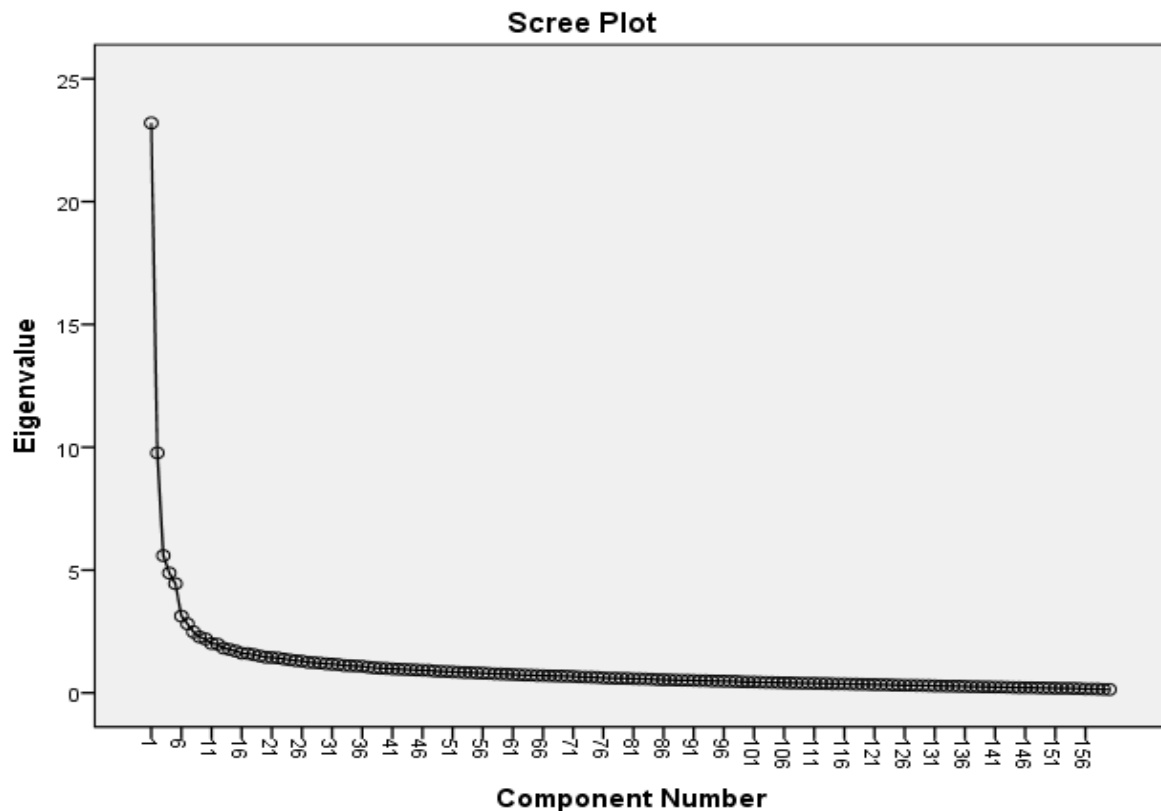


Table 3.6 presents items, factor loadings and Cronbach's alpha reliability for Factor 1, Table 3.7 for Factor 2, and Table 3.8 for Factor 3, Table 3.9 for Factor 4, Table 3.10 for Factor 5, Table 3.11 for Factor 6, Table 3.12 for Factor 7, Table 3.13 for Factor 8, Table 3.14 for Factor 9.

Table 3.6: Factor 1 items and factor loadings of preliminary CACSS

Item	Factor 1: Problem Solving & Positive Focus
Sorunun nereden kaynaklandığını anlayıp, ona uygun bir çözüm üretmeye çalışırım.	.72
Durumu değiştirmek için neler yapabileceğimi düşünürüm.	.68
Bu duruma yol açan nedenleri anlamaya çalışırım.	.66
Tamamen sorunu çözmeye odaklanırım.	.64
Geçmişte işime yaramış olan çözüm yollarını hatırlayıp, onları uygulayırım.	.64
Sorunu çözmek için farklı yollar denerim.	.64
Sorun üzerinde düşünerek ne yapabileceğimi bulmaya çalışırım.	.63
Doğru ve yanlışlarımı neydi diye bakarım.	.60
Sorunu çözmek için bir plan yapıp uygulayırım.	.59
Sorunu çözmek için elimdeki kaynakların yeterli olup olmadığını değerlendiririm.	.57
Farklı çözüm yolları üzerine düşünerek sorunu çözmeye çalışırım.	.57
Soruna farklı açılardan bakmaya çalışırım.	.57
Sorunu küçük adımlara bölerek çözmeye çalışırım.	.55
Sorunu çözmemde yardımcı olacak beceriler geliştirmeye çalışırım.	.55
Aynı şeyin bir daha yaşanmasını engellemek için hayatımda ya da davranışlarımda bir takım değişiklikler yaparım.	.54
Kendime bunların üstesinden gelebileceğimi söylerim.	.53
Her şeyin daha iyi olması için bir şeyleri değiştirmeye çalışırım.	.53
Bu deneyimin bana kattığı olumlu şeyleri düşünürüm.	.52
Sorunu çözmeye çalışırım.	.50
Güçlü olmaya çalışırım.	.49
Aynı şeyin bir daha yaşanmaması için nedenlerini anlamaya çalışırım.	.48
Yaşadıklarımın beni bir insan olarak olgunlaştırdığını düşünürüm.	.47
“Geçmişte başardın, yine başarısın.” diye kendime hatırlatırım.	.46
Bu yaşananların benim için önemli bir yaşam deneyimi olduğunu düşünürüm.	.45
Çözüm yolu aramaktan vazgeçerim.	-.43
Pes etmem, sorunun üstüne giderim.	.43
Umudumu kaybetmemeye çalışırım.	.42
Yaşananlardan bir ders çıkarmaya çalışırım.	.41
Yaşamımdaki güzel şeyleri düşünmeye çalışırım.	.41
Explained variance (%)	8.48
Cronbach's Alpha	.92

Table 3.7: Factor 2 items and factor loadings of preliminary CACSS

Item	Factor 2: Aggression & Risk Taking
Etrafımdakilere sataşırım.	.69
Kavga çıkarırım.	.66
Öfkemi birilerinden çıkarırım.	.66
Sinirimi etraftaki şeylerden çıkarırım (kapıları çarpmak, bir şeylere vurmak, tekmelemek, kırmak, dökmek gibi).	.65
İçimden ya da sesli olarak küfreder ya da kötü şeyler söylerim.	.64
Bağırıp çağırırım.	.63
Çevremdekilere söylenirim.	.62
Başkalarını suçlarım.	.62
İntikam planları yaparım.	.61
Okulla ilgili görevlerimi aksatırım (ev ödevlerini aksatmak, okulu asmak vb.).	.57
Birileriyle tartışırım.	.56
Sonucunu düşünmeden kendimi tehlike durumların içine sokarım.	.55
Düşünmeden para harcarım.	.53
Normalde tepki göstermeyeceğim şeylere tepki göstermeye başlarım.	.53
Kendimi okula ve derslerime veririm.	-.50
Kendime fiziksel olarak zarar veririm. (örneğin; kendimi ısırarak, yaralamak, kesmek gibi).	.44
Sigara içerim.	.44
İçki içerek rahatlamaya çalışırım.	.43(-.41) ¹
Explained variance (%)	6.08
Cronbach's Alpha	.87

1) The item was also loaded to Factor 8 but retained in Factor 2 on theoretical basis.

Table 3.8: Factor 3 items and factor loadings of preliminary CACSS

Item	Factor 3: Social Support Seeking
Duygularımı başkalarıyla paylaşıyorum.	.69
Çözüm üretmek için başkalarıyla konuşurum.	.60
Sorunumu çözmek için arkadaşımından yardım isterim.	.56
Beni anlayacak birilerine derdimi anlatırım.	.55
Aynı sorunu yaşamış kişilerle konuşurum.	.53
Benzer sıkıntı yaşıyor olsalardı ne yaparlardı diye çevremdekilerle konuşurum.	.51
Duygularımı rahatça dışa vururum.	.48
Farklı kişilerden öneri (tavsiye) almaya çalışırım.	.46
Benzer sorun yaşayan kişilerle bir arada olmaya çalışırım.	.46
Sorunumu çözmek için ailem dışında bir büyükten yardım isterim.	.45
Sıkıntımı ailemden birisiyle (annem, babam, kardeşim, ablam, ya da ağabeyim) paylaşıyorum.	.44
Duygularımı kendime saklarım.	-.43
Sorunumu çözmek için kardeşim, ablam ya da ağabeyimden yardım isterim.	.40
Benzer sorunları yaşayıp, üstesinden gelmiş kişileri kendime örnek alırım.	.40(.42) ¹
	Explained variance (%) 3.82
	Cronbach's Alpha .85

1) The item was also loaded to Factor 1 but retained in Factor 3 on theoretical basis.

Table 3.9: Factor 4 items and factor loadings of preliminary CACSS

Item	Factor 4: Self-blame & -isolation
Kendime kızırım.	.60
Ağlarım.	.58
Sürekli olarak “öyle mi yapsaydım, böyle mi yapsaydım” diye düşünüp dururum.	.58
İçimi dökmek için ağlarım.	.58
Bu duruma neden olduğum için kendimi suçlarım.	.56
Bu durumu engelleyemediğim için kendimi kötü hissederim.	.52
Yalnız kalmaya çalışırım.	.52
Her şeyin kendi hatam olduğunu düşünürüm.	.51
Odama çekilirim.	.49
Sürekli olup bitenlerle ilgili düşünürüm.	.49
Sessiz bir yere gidip kendimi dinlerim.	.48
Sıkıntımı içime atarım.	.46
Kendi kendime söylenirim.	.42
Her şeyi değiştirecek bir mucize olmasını dilerim.	.41
Explained variance (%)	3.70
Cronbach's Alpha	.83

Table 3.10: Factor 5 items and factor loadings of preliminary CACSS

Item	Factor 5: Avoidance
Olanları kafama takmamaya çalışırım.	.51
Olanları unutmaya çalışırım.	.48
Bana sorunumu hatırlatan kişilerden ya da şeylerden uzak durmaya çalışırım.	.47
Kendimi yormamaya çalışırım.	.46
Çok daha kötüsü olabilirdi diye düşünüp kendimi rahatlatmaya çalışırım.	.46
Beni üzen şeyleri zihnimden uzaklaştırmaya çalışırım.	.46
Sorunu kafamda büyütmemeye çalışırım.	.45
Kendime bunun dünyanın sonu olmadığını söylerim.	.44
Explained variance (%)	3.50
Cronbach's Alpha	.70

Table 3.11: Factor 6 items and factor loadings of preliminary CACSS

Item	Factor 6: Play & Humor
Olayın komik yanlarını görmeye çalışırım.	.67
Durumu şakaya vururum.	.65
Aklıma komik şeyler getiririm.	.61
Komik şeylere (komedi filmi, komik videolar, karikatür vb.) odaklanırım.	.57
Olayla ilgili şakalar/ espriler/ komiklikler yaparım.	.55
Oyun oynarım.	.49
Kendime bu sorunun çok da önemli olmadığını söylerim.	.44
Explained variance (%)	3.08
Cronbach's Alpha	.80

Table 3.12: Factor 7 items and factor loadings of preliminary CACSS

Item	Factor 7: Seeking Professional Help
İlaç vermesi için doktora giderim.	.60
Bana yardımcı olabilecek kurum/kuruluşlara başvururum.	.54
Profesyonel bir kişi (psikiyatrist, psikolog) ile görüşürüm.	.46
Fiziksel olarak zorlayıcı/ ağır egzersizler yaparım.	.43
Explained variance (%)	2.88
Cronbach's Alpha	.58

Table 3.13: Factor 8 items and factor loadings of preliminary CACSS

Item	Factor 8: Religious Coping
Dua ederim.	.68
Şükrederim.	.67
Dinime sığınırım.	.64
Benden daha kötü durumda olan insanlar olabilir diye düşünüp şükrederim.	.53
Explained variance (%)	2.71
Cronbach's Alpha	.79

Table 3.14: Factor 9 items and factor loadings of preliminary CACSS

Item	Factor 9: Positive Thinking
Kendime “güçlü ol” derim.	.49
Kendimi güzel bir yerde, sevdiğim bir şeyler yaparken hayal ederim.	.41
Her şeyin daha iyi olduğuna dair hayaller kurarım.	.40
Explained variance (%)	2.41
Cronbach’s Alpha	.62

The internal consistencies of the nine factors: problem solving & positive focus ($\alpha=.92$) and aggression & risk taking ($\alpha=.90$) were excellent; social support seeking ($\alpha=.85$), self-blame & -isolation ($\alpha=.83$) and play & humor ($\alpha=.80$) was good; religious coping ($\alpha=.79$) and avoidance ($\alpha=.70$) was acceptable; positive thinking ($\alpha=.62$) and seeking professional help ($\alpha=.62$) were questionable (Cronbach & Shavelson, 2004).

Last elimination was based upon an increase in the factor’s reliability within each factor. Therefore 1 item deleted from Factor 2 and increased alpha from .87 to .90; 1 item deleted from Factor 7 and increased alpha from .58 to .62. In this way, 99-item preliminary scale was constructed. Before final administration, researchers reviewed the scale items again. 11 items were deleted because of lack of association with factors’ content and feedback from participants about items lack of clarity. Then 88-item scale was included for final study.

3.2.2. Final Study

3.2.2.1. Data screening and outlier analysis

Prior to analyses, data were checked and corrected for errors that any scores out of range. Then data were screened for missing values and multivariate outliers. The percentage of missing data for CACCS was 0.8%, for SSKJ 3-8 1.1% and for SDQ 1.9%. Missing values defined as missing values and replaced with the item mean. Eight outliers ($|z| \geq 3.00$) defined as univariate using z -scores. There were seven

multivariate outliers defined using Mahalanobis distance, $\alpha=.01$. These outliers excluded from analysis, leaving a total sample size of 664.

3.2.2.2. Factor Structure of CACSS

To determine the number of factors underlying CACSS, an exploratory factor analysis was conducted using principal components analysis (PCA). Two empirical indices regarding data matrix confirmed that it was suitable for factor analytic procedures: Bartlett's test of sphericity was significant, $\chi^2(3828) = 25978.81, p < .0001$ and Kaiser-Meyer-Olkin (KMO) value was .92 meaning that perfect data for structure detection (Tabachnik & Fidell, 2013).

Criteria for initial item elimination included increase in Cronbach's alpha if item deleted and high inter-item correlations greater than .80 (Floyd & Widaman, 1995). Based on the above criteria, no items were eliminated. Corrected item-total correlation was not conducted, because CACSS does not give a total score.

A principle components analysis (PCA) with varimax rotation was carried out. Factor solutions were based on the following criteria: eigenvalues of 1.0 or greater (Kaiser, 1961), factors loadings of .30 or greater (Brown, 2006), a Scree test (Cattell, 1966) and the conceptual interpretability of factors (Worthington & Whittaker, 2006). Therefore the number of factors was estimated as conducting number of decisions rules until the most interpretable solution found (Ford et al., 1986).

Examination of scree plot (see Figure 3.17) indicated between four and eleven factors Therefore four to eleven factors were tested to find the most interpretable factor solution. Eleven factor produced the clearest factor solution for 88 item and accounted for 50.26 % of the total variance. Cronbach's alpha reliability of 88 items was found to be .90.

Figure 3.17: Scree plot of CACSS

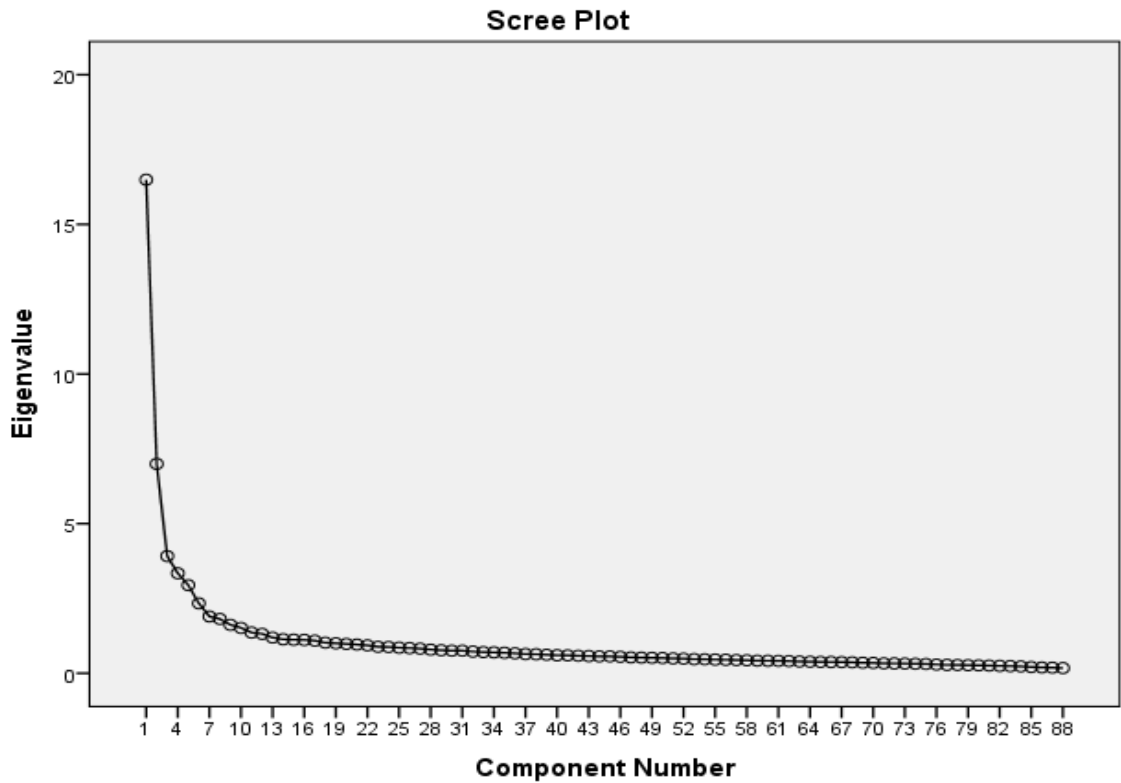


Table 3.15 presents items, factor loadings, explained variances and Cronbach's alpha reliability for Factor 1, Table 3.16 for Factor 2, and Table 3.17 for Factor 3, Table 3.18 for Factor 4, Table 3.19 for Factor 5, Table 3.20 for Factor 6, Table 3.21 for Factor 7, Table 3.22 for Factor 8, Table 3.23 for Factor 9, Table 3.24 for Factor 10, Table 3.25 for Factor 11. Rough translations of items of the CACSS were also presented in Appendix 8.

Table 3.15: Factor 1 items and factor loadings of final CACSS

Item	Factor 1: Problem Solving & Positive Focus
Sorunun nereden kaynaklandığını anlayıp, ona uygun bir çözüm üretmeye çalışırım.	.74
Durumu değiştirmek için neler yapabileceğimi düşünürüm.	.67
Sorun üzerinde düşünerek ne yapabileceğimi bulmaya çalışırım.	.67
Tamamen sorunu çözmeye odaklanırım.	.66
Sorunu çözmek için bir plan yapıp uygulurum.	.65
Sorunu çözmek için elimdeki kaynakların yeterli olup olmadığını değerlendiririm.	.65
Sorunu çözmek için farklı yollar denerim.	.63
Sorunu çözmemde yardımcı olacak beceriler geliştirmeye çalışırım.	.63
Soruna farklı açılardan bakmaya çalışırım.	.59
Sorunu küçük adımlara bölerek çözmeye çalışırım.	.58
Doğru ve yanlışlarımı neydi diye bakarım.	.57
Her şeyin daha iyi olması için bir şeyleri değiştirmeye çalışırım.	.57
Geçmişte işime yaramış olan çözüm yollarını hatırlayıp, onları uygulurum.	.56
Aynı şeyin bir daha yaşanmasını engellemek için hayatımda ya da davranışlarımda bir takım değişiklikler yaparım.	.49
Aynı şeyin bir daha yaşanmaması için nedenlerini anlamaya çalışırım.	.48(.32) ¹
Çözüm yolu aramaktan vazgeçerim.(R)	-.47
“Geçmişte başardım, yine başarısın.” diye kendime hatırlatırım.	.45(.38) ²
Kendime bunların üstesinden gelebileceğimi söylerim.	.44(.34)(.31) ³
Pes etmem, sorunun üstüne giderim.	.42(.41) ⁴
Çok daha kötüsü olabilirdi diye düşünüp kendimi rahatlatmaya çalışırım.	.34(.37) ⁵
Yaşamımdaki güzel şeyleri düşünmeye çalışırım.	.31(.31) ⁶
Kendime “güçlü ol” derim.	.31(.41)(.35) ⁷
Explained variance (%)	9.94
Cronbach's Alpha	.93

1) The item was also loaded to Factor 9 but retained in Factor 1 on theoretical basis.

2) The item was also loaded to Factor 4 but retained in Factor 1 on theoretical basis.

3) The item was also loaded to Factor 4 and 9 but retained in Factor 1 on theoretical basis.

4) The item was also loaded to Factor 9 but retained in Factor 1 on theoretical basis.

5) The item was also loaded to Factor 4 but retained in Factor 1 on theoretical basis.

6) The item was also loaded to Factor 4 but retained in Factor 1 on theoretical basis.

7) The item was also loaded to Factor 4 and 11 but retained in Factor 1 on theoretical basis.

R= Reverse item

Table 3.16: Factor 2 items and factor loadings of final CACSS

Item	Factor 2: Aggression
Öfkemi birilerinden çıkarırım.	.76
Bağırıp çağırırım.	.76
Etrafımdakilere sataşırım.	.75
Kavga çıkarırım.	.74
İntikam planları yaparım.	.68
Sinirimi etraftaki şeylerden çıkarırım (kapıları çarpmak, bir şeye vurmak, tekmelemek, kırmak, dökmek gibi).	.66
Başkalarını suçlarım.	.65
Çevremdekilere söylenirim.	.63
İçimden ya da sesli olarak küfreder ya da kötü şeyler söylerim.	.61
Birileriyle tartışırım.	.57
Normalde tepki göstermeyeceğim şeylere tepki göstermeye başlarım.	.50
Kendime fiziksel olarak zarar veririm (örneğin; kendimi ısırarak, yaralamak, kesmek gibi).	.39
	Explained variance (%)
	7.71
	Cronbach's Alpha
	.89

Table 3.17: Factor 3 items and factor loadings of final CACSS

Item	Factor 3: Social Support Seeking
Duygularımı başkalarıyla paylaşıyorum.	.72
Beni anlayacak birilerine derdimi anlatırım.	.68
Sorunumu çözmek için arkadaşımın yardım isterim.	.67
Çözüm üretmek için başkalarıyla konuşurum.	.67(.34) ¹
Benzer sorun yaşayan kişilerle bir arada olmaya çalışırım.	.63
Aynı sorunu yaşamış kişilerle konuşurum.	.62
Farklı kişilerden öneri (tavsiye) almaya çalışırım.	.59
Benzer sıkıntı yaşıyor olsalardı ne yaparlardı diye çevremdekilerle konuşurum.	.54
Benzer sorunları yaşayıp, üstesinden gelmiş kişileri kendime örnek alırım.	.49(.36) ²
Sıkıntımı ailemden birisiyle (annem, babam, kardeşim, ablam, ya da ağabeyim) paylaşıyorum.	.45
Duygularımı rahatça dışarı vururum.	.40
Sorunumu çözmek için ailem dışında bir büyükten yardım isterim.	.40(.39) ³
Sorunumu çözmek için kardeşim, ablam ya da ağabeyimden yardım isterim.	.35(.38) ⁴
	Explained variance (%)
	6.60
	Cronbach's Alpha
	.88

1) The item was also loaded to Factor 1 but retained in Factor 3 on theoretical basis.

2) The item was also loaded to Factor 1 but retained in Factor 3 on theoretical basis.

3) The item was also loaded to Factor 8 but retained in Factor 3 on theoretical basis.

4) The item was also loaded to Factor 8 but retained in Factor 3 on theoretical basis.

Table 3.18: Factor 4 items and factor loadings of final CACSS

Item	Factor 4: Religious Coping
Dinime sığınırım.	.78
Dua ederim.	.76
Şükrederim.	.75
Benden daha kötü durumda olan insanlar olabilir diye düşünüp şükrederim.	.60
Her şeyi değiştirecek bir mucize olmasını dilerim.	.35(.32) ¹
Explained variance (%)	4.28
Cronbach's Alpha	.81

1) The item was also loaded to Factor 5 but retained in Factor 4 on theoretical basis.

Table 3.19: Factor 5 items and factor loadings of final CACSS

Item	Factor 5: Self-blame
Her şeyin kendi hatam olduğunu düşünürüm.	.66
Bu duruma neden olduğum için kendimi suçlarım.	.65
Kendime kızarım.	.64
Sürekli olarak “öyle mi yapsaydım, böyle mi yapsaydım” diye düşünüp dururum.	.61
Bu durumu engelleyemediğim için kendimi kötü hissederim.	.51
Ağlarım.	.45(.39) ¹
Sürekli olup bitenlerle ilgili düşünürüm.	.37
Kendime söylenirim.	.33(.38)(.37) ²
Explained variance (%)	4.22
Cronbach's Alpha	.78

1) The item was also loaded to Factor 7 but retained in Factor 5 based on higher loading.

2) The item was also loaded to Factor 2 and 7 but retained in Factor 5 on theoretical basis.

Table 3.20: Factor 6 items and factor loadings of final CACSS

Item	Factor 6: Play & Humor
Aklıma komik şeyler getiririm.	.80
Durumu şakaya vururum.	.78
Olayın komik yanlarını görmeye çalışırım.	.78
Komik şeylere (komedi filmi, komik videolar, karikatür vb.) odaklanırım.	.72
Olayla ilgili şakalar/ espriler/ komiklikler yaparım.	.70
Oyun oynarım.	.37(.31) ¹
Explained variance (%)	4.03
Cronbach's Alpha	.82

1) The item was also loaded to Factor 8 but retained in Factor 6 on theoretical basis.

Table 3.21: Factor 7 items and factor loadings of final CACSS

Item	Factor 7: Self-isolation
Sessiz bir yere gidip kendimi dinlerim.	.70
Yalnız kalmaya çalışırım.	.64
Odama çekilirim.	.62
Duygularımı kendime saklarım.	.39(-.45) ¹
Sıkıntımı içime atarım.	.38(-.44) ²
Explained variance (%)	
2.90	
Cronbach's Alpha	
.73	

1) The item was also loaded to Factor 3 but retained in Factor 7 on theoretical basis.

2) The item was also loaded to Factor 3 but retained in Factor 7 on theoretical basis.

Table 3.22: Factor 8 items and factor loadings of final CACSS

Item	Factor 8: Seeking Professional Help
Bana yardımcı olabilecek kurum/kuruluşlara başvururum.	.68
Profesyonel bir kişi (psikiyatrist, psikolog) ile görüşürüm.	.62
İlaç vermesi için doktora giderim.	.59
Explained variance (%)	
2.89	
Cronbach's Alpha	
.67	

Table 3.23: Factor 9 items and factor loadings of final CACSS

Item	Factor 9: Positive reappraisal
Bu yaşananların benim için önemli bir yaşam deneyimi olduğunu düşünürüm.	.59
Yaşananlardan bir ders çıkarmaya çalışırım.	.53(.34) ¹
Yaşadıklarımın beni bir insan olarak olgunlaştırdığımı düşünürüm.	.51(.36) ²
Bu deneyimin bana kattığı olumlu şeyleri düşünürüm.	.43(.42) ³
Explained variance (%)	
2.83	
Cronbach's Alpha	
.72	

1) The item was also loaded to Factor 1 but retained in Factor 9 on theoretical basis and higher loading.

2) The item was also loaded to Factor 1 but retained in Factor 9 on theoretical basis and higher loading.

3) The item was also loaded to Factor 1 but retained in Factor 9 on theoretical basis and higher loading.

Table 3.24: Factor 10 items and factor loadings

Item	Factor 10: Avoidance
Olanları kafama takmamaya çalışırım.	.62
Beni üzen şeyleri zihnimden uzaklaştırmaya çalışırım.	.57
Olanları unutmaya çalışırım.	.57
Bana sorunumu hatırlatan kişilerden ya da şeylerden uzak durmaya çalışırım.	.54
Sorunu kafamda büyütmemeye çalışırım.	.39(.32) ¹
Explained variance (%)	
2.54	
Cronbach's Alpha	
.57	

1) The item was also loaded to Factor 9 but retained in Factor 10 on theoretical basis.

Table 3.25: Factor 11 items and factor loadings

Item	Factor 11: Risk-Taking
Sigara içerim.	.60
İçki içerek rahatlamaya çalışırım.	.55(.30) ¹
Düşünmeden para harcarım.	.41(.31) ²
Sonucunu düşünmeden kendimi tehlikeli durumların içine sokarım.	.38(.44) ³
Okulla ilgili görevlerimi aksatırım (ev ödevlerini aksatmak, okulu asmak vb.)	.31(.43) ⁴
Explained variance (%)	
2.32	
Cronbach's Alpha	
.69	

1)The item was also loaded to Factor 2 but retained in Factor 11 on theoretical basis.

2) The item was also loaded to Factor 2 but retained in Factor 11 on theoretical basis.

3) The item was also loaded to Factor 2 but retained in Factor 11 on theoretical basis.

4) The item was also loaded to Factor 2 but retained in Factor 11 on theoretical basis.

Since CACCS has no total score, corrected-item total correlation coefficients of each factor were calculated. Because item-total correlations above .20 (Floyd & Widaman, 1995), no items were eliminated.

Factor 1, Problem Solving & Positive Focus, includes 22 items that describes efforts directed toward solution of problem or to change the situation and focusing on positive things in life as motivating the self. Items on this scale include positive self-statements, thinking good things in life, analyzing problem, setting plans and goals for solution of the problem, developing skills to handle the problem, thinking about alternative ways and preventive actions for possible stressors.

Factor 2, Aggression, comprised of 12 items that includes expressing anger in aggressive ways, arguing with others, blaming others, self-destructive behaviors in response to a stressor.

Factor 3, Seeking Social Support, includes 13 items that describes efforts to seek emotional support and advice to help handle the problem. Items on this scale involve expressing feelings to significant others, asking for help to solve the problem and getting other peoples' perspective about the problem.

Factor 4, Religious Coping, includes 5 items that related to engaging in religious activities, seeking spiritual support and feeling grateful in response to stressors.

Factor 5, Self-blame, includes 8 items that describes strategies such as internalization of the problem, seeing oneself as responsible for the problem, and engaging self-critical and ruminative thoughts.

Factor 6, Play & Humor, comprised of 6 items that describes efforts to point to humorous side of the problem and playing to deal with stressors. Items on this scale involve focusing funny things, making jokes about the problem and playing a game.

Factor 7, Self-isolation, involves 5 items that describes keeping feelings and concerns to self, withdrawing from others and being alone in response to stressors.

Factor 8, Seeking Professional Help, includes 3 items that describes asking help from institutions or qualified individuals such as counselors to deal with problems.

Factor 9, Positive Reappraisal, includes 4 items that related to making positive reinterpretation about the situation. Items on this scale involve taking lessons from experiences and observing contributions to personal growth.

Factor 10, Avoidance, comprised of 5 items that involves cognitive and behavioral strategies that help to avoid confronting problems. Items on this scale involve strategies such as trying to forget the problem, escaping from things or people that remind problems and refusing to think about the problem.

Factor 11, Risk Taking, includes 5 items that related to strategies to reduce the immediate stress such as smoking, drinking alcohol, spending money excessively and engaging in dangerous situations.

3.2.2.3. Reliability Analysis

Cronbach's alpha was calculated for each factor and total scale to determine the level of internal consistency. Beside Cronbach's alpha, mean inter-item correlations for each factor were also calculated as shown in Table 3.26. Because Cronbach's alpha is influenced by the length of scale, mean inter-item correlation was used to supplement the comparison between factors of different lengths.

Table 3.26: Cronbach's alpha and mean inter-item correlation of subscales of CACSS

	Cronbach's alpha (α)	Mean Inter-Item Correlation (r)
Problem Solving & Positive Focus	.93	.36
Aggression	.89	.41
Seeking Social Support	.88	.37
Play & Humor	.82	.42
Religious Coping	.81	.47
Self-blame	.78	.30
Self-isolation	.73	.35
Positive Reappraisal	.72	.40
Risk Taking	.69	.31
Seeking Professional Help	.67	.42
Avoidance	.57	.21

The internal consistency of the 88-item CACSS was excellent ($\alpha = .90$). Newly developed instrument should have the lowest value for Cronbach's alpha of .70 (Nunnally & Bernstein, 1994). The internal consistencies of the eleven factors: problem solving & positive focus ($\alpha = .93$) was excellent; aggression ($\alpha = .89$), social support seeking ($\alpha = .88$), play & humor ($\alpha = .82$) and religious coping ($\alpha = .81$) was good; self-blame ($\alpha = .78$), self-isolation ($\alpha = .73$) and positive reappraisal ($\alpha = .72$) was acceptable; risk taking ($\alpha = .69$) and seeking professional help ($\alpha = .67$) was questionable; avoidance ($\alpha = .57$) was poor (based on criterion by Cronbach & Shavelson, 2004). In addition to Cronbach's alpha, mean inter-item correlations, which is another measure of internal consistency, for each subscale are acceptable based on criteria $.15 < r < .50$ (Clark & Watson, 1995).

The test-retest sample consisted of 130 participants (M age = 13.21, $SD = 3.26$). Two-week test-retest reliabilities of the total scale and eleven subscales are measured by Pearson's correlation coefficient. Test-retest reliabilities, means and standard deviations of two administration times are presented in Table 3.27. Test-retest reliability of 88-item CACSS was strong ($r = .76$). Retest reliabilities for subscales varied from moderate to strong (Pearson's r ranged from .50 to .83) (Cohen & Holliday, 1982). Sample means and standard deviations were quite similar from the first to second administration.

Table 3.27: Two-week test-retest reliabilities, means and standard deviations of CACSS and subscales

	Time 1 <i>M</i>(<i>SD</i>)	Time 2 <i>M</i>(<i>SD</i>)	<i>Pearson r</i>
Total CACSS	281.05(35.86)	272.22(42.35)	.76*
Problem Solving & Positive Focus	81.73(17.27)	78.56(17.45)	.83*
Aggression	25.86(9.87)	25.91(10.82)	.79*
Seeking Social Support	43.33(12.51)	41.84(12.85)	.79*
Religious Coping	19.13(4.61)	18.79(4.65)	.79*
Play & Humor	19.73(6.28)	18.24(6.33)	.75*
Positive Reappraisal	14.91(3.53)	14.15(3.76)	.72*
Self-blame	25.94(6.89)	24.30(7.36)	.66*
Risk Taking	8.95(3.97)	9.22(3.80)	.64*
Seeking Professional Help	7.12(3.84)	7.19(3.47)	.64*
Self-isolation	17.35(4.44)	16.92(4.34)	.60*
Avoidance	16.99(4.29)	17.11(5.14)	.50*

N=130. **p*<.001

3.2.2.4. Correlation between factors of CACSS

Intercorrelations of the eleven coping subscales are reported in Table 3.28. Correlations between subscales varied weak to moderate. The highest correlations, of moderate intensity (between .40 and .69) were found between problem solving & positive focus and positive reappraisal ($r=.67$), seeking social support ($r=.64$), religious coping ($r=.50$); aggression and risk taking ($r=.59$); seeking social support and religious coping ($r=.41$), seeking professional help ($r=.45$), positive reappraisal ($r=.46$); self-blame and self-isolation ($r=.41$). There was a low (between .20 and .39) positive correlation between problem solving & positive focus and seeking professional help ($r=.33$), avoidance ($r=.36$); self-blame and aggression ($r=.33$); religious coping and seeking professional help ($r=.30$), positive reappraisal ($r=.31$); aggression and self-isolation ($r=.31$). There was also low negative correlation between problem solving & positive focus and aggression ($r=-.35$), risk taking ($r=-.30$).

Table 3.28: Intercorrelations of subscales of CACSS

Subscales of CACSS	1	2	3	4	5	6	7	8	9	10	11
1											
2	-.35*										
3	.64*	-.25*									
4	.50*	-.21*	.41*								
5	.06	.33*	.08	.18*							
6	.27*	.02	.21*	.14*	-.07						
7	-.14*	.31*	-.27*	.01	.41*	-.02					
8	.33*	-.17*	.45*	.30*	-.06	.16*	-.13				
9	.67*	-.25*	.46*	.32*	-.06	.22*	-.09	.20*			
10	-.30*	.59*	-.18*	-.28*	.19*	.09	.19*	-.02	-.18*		
11	.36*	.24*	.24*	.25*	-.08	.26*	-.03	.16*	.28*	-.14*	

Note. 1=Problem solving & positive focus, 2=Aggression, 3=Seeking social support, 4=Religious coping, 5=Self-blame, 6=Play & Humor, 7=Self-isolation, 8=Seeking professional help, 9=Positive reappraisal, 10=Risk taking, 11=Avoidance
N=664. **p*<.001

3.2.2.5. Validity of CACSS

The correlations between CACSS and Stress and Coping Questionnaire for Children and Adolescents (SSKJ 3-8) are presented in Table 3.29. The correlations shows both convergent validity between subscales that have similar constructs on the CACSS and SSKJ 3-8; and discriminant validity between subscales that have different constructs on two scales. Similar subscales had moderate to strong relationship with related subscale except avoidance subscale. Problem solving & positive focus subscale had strong positive relationship with problem solving subscale of SSKJ 3-8 ($r=.77$). Aggression subscale had strong positive relationship with anger related emotion regulation subscale of SSKJ 3-8 ($r=.77$). Seeking social support subscale had strong positive relationship with seeking social support subscale of SSKJ 3-8 ($r=.75$). Avoidance subscale had low positive relationship with avoidant coping subscale of SSKJ 3-8 ($r=.35$). Self-blame subscale had moderate positive relationship with anger related emotion regulation ($r=.44$). Seeking professional help subscale had moderate positive relationship with seeking social support ($r=.46$). Positive reappraisal subscale had moderate positive relationship with problem solving ($r=.54$). Risk taking subscale had moderate positive relationship with anger related emotion regulation ($r=.50$).

Subscales of CACSS were not correlated with scales that represented different constructs on SSKJ 3-8. Religious coping, positive reappraisal, self-blame, problem solving & positive focus were not correlated with Media use. Play & humor coping was not correlated anger related emotion regulation. Risk taking, aggression, self-blame coping were not correlated with palliative emotion regulation.

Table 3.29: Correlations between CACSS and SSKJ 3–8

CACSS	SSKJ 3-8					
	Seeking Social Support	Problem Solving	Avoidant Coping	Palliative Emotion Regulation	Anger related Emotion Regulation	Media Use
Problem Solving & Positive Focus	.50**	.77**	.20**	.35**	-.27**	-.08
Aggression	-.10	-.31**	-.00	-.02	.77**	.32**
Seeking Social Support	.75**	.54**	.07	.20**	-.22**	-.08
Religious Coping	.33**	.34**	.22**	.27**	-.19**	-.13
Self-blame	.10	.05	-.08	-.02	.44**	.10
Play & Humor	.19**	.13	.35**	.39**	.01	.33**
Self-isolation	-.14*	-.14*	.10	.20**	.35**	.14*
Seeking Professional Help	.46**	.26**	.12	.16*	-.21**	-.15*
Positive Reappraisal	.32**	.54**	.17**	.28**	-.21**	-.06
Avoidance	.17**	.26**	.35**	.28**	-.18**	.04
Risk Taking	-.03	-.27**	.07	-.02	.50**	.32**

N=427. * $p < .01$, ** $p < .001$

The construct validity correlations between CACSS and the strengths and difficulties Questionnaire (SDQ) are presented in Table 3.30. Expected correlations were moderate and low in magnitude but statistically significant. Aggression and risk taking coping subscales were positively correlated with conduct problems ($r=.52$, $r=.47$), with hyperactivity/inattention ($r=.39$, $r=.35$), also with total difficulty score ($r=.48$, $r=.44$). Self-blame and self-isolation coping subscales were positively correlated with emotional symptoms ($r=.47$, $r=.33$), and also with total difficulty score ($r=.48$,

$r=.35$). Problem solving & positive focus and seeking social support subscales were positively correlated with prosocial behavior ($r=.38$, $r=.37$). Problem solving & positive focus subscale was significantly and negatively correlated with all emotional and behavioral symptoms. Aggression, self-blame, self-isolation and risk taking coping subscales were significantly and positively correlated with all emotional and behavioral symptoms.

Table 3.30: Correlations between CACSS and SDQ

	SDQ					
	Emotional Symptoms	Conduct Problems	Hyperactivity/ Inattention	Peer Problems	Prosocial Behavior	Total Difficulty
CACSS						
Problem Solving & Positive Focus	-.14**	-.26**	-.25**	-.12*	.38**	-.28**
Aggression	.29**	.52**	.39**	.11*	-.24**	.48**
Seeking Social Support	-.01	-.22**	-.10	-.13*	.37**	-.16**
Religious Coping	.06	-.22**	-.14**	-.04	.30**	-.12*
Self-blame	.47**	.09	.26**	.10	.08	.37**
Play & Humor	-.11	.04	.10	.04	.05	.02
Self-isolation	.33**	.22**	.17**	.22**	-.09	.35**
Seeking Professional Help	.04	-.08	-.08	.10	.12*	-.01
Positive Reappraisal	-.11*	-.19**	-.16**	-.06	.25**	-.19**
Avoidance	-.15**	-.16**	-.06	-.07	.10	-.16**
Risk Taking	.21**	.47**	.35**	.21**	-.25**	.44**

$N=607$. * $p<.01$, ** $p<.001$

3.2.2.6. Gender and age-groups differences in coping strategies

In order to determine if there were gender and age-group differences on coping strategies, a 2x3 between subjects multivariate analysis of variance (MANOVA) was conducted on 11 dependent variables. The independent variables are gender (female, male) and age-groups (9-11, 12-15, and 16-18). Dependent variables are subscales of CACSS. Mean item ratings rather than totals were used to compare subscales scores due to unequal number of items across subscales.

The Box's test was found significant for the design, $p=.000$. Therefore the assumption of homogeneity of variance is violated. Thus, Pillai's Trace was an appropriate test to use. Significant main effects were found for gender $F(11, 646)=14.24$, $p < .001$, $\eta^2 = .20$ and for age-group $F(22, 1294)= 12.18$, $p < .001$, $\eta^2 = .18$. The interaction effect between gender and age-group were not significant, $p=.29$.

Analyses of variances (ANOVA) on the dependent variables were conducted as follow-up tests to MANOVA. Bonferroni correction was conducted to control Type I error. Effect sizes were measured by partial eta-squared (η^2): .01, a small effect size; .06, a medium effect size; and .14, a large effect size (Cohen, 1988). Significant main effects were found for gender on six coping strategies: religious coping, $F(1, 656)= 9.55$, $p < .05$, $\eta^2 = .014$, a small sized effect; self-blame, $F(1, 656)= 69.88$, $p < .05$, $\eta^2 = .10$, a medium sized effect; play & humor, $F(1, 656)= 34.36$, $p < .05$, $\eta^2 = .05$, a small sized effect; self-isolation, $F(1, 656)= 29.51$, $p < .05$, $\eta^2 = .04$, a small sized effect; seeking professional help, $F(1, 656)= 6.10$, $p < .05$, $\eta^2 = .01$, a small sized effect; risk taking, $F(1, 656)= 5.30$, $p < .05$, $\eta^2 = .01$, a small sized effect. Females ($M = 3.91$) significantly have higher scores than males ($M = 3.66$) on religious coping. Females ($M = 3.51$) used more self-blame coping than males ($M = 2.97$). Males ($M = 3.57$) have higher scores on play & humor coping than females ($M = 3.09$). Females ($M = 3.58$) used more self-isolation coping than males ($M = 3.17$). Males ($M = 2.35$) have higher scores on seeking professional help than females ($M = 2.14$). Males ($M = 1.99$) have higher scores on risk-taking coping than females ($M = 1.85$).

Univariate analyses showed significant effects for age-groups on eight coping strategies: problem solving & positive focus, $F(2, 656)= 14.72$, $p < .001$, $\eta^2 = .04$, a small sized effect; aggression, $F(2, 656)= 42.76$, $p < .001$, $\eta^2 = .12$, a medium sized effect; seeking social support, $F(2, 656)= 24.78$, $p < .001$, $\eta^2 = .07$, a medium sized effect; religious coping, $F(2, 656)= 34.24$, $p < .001$, $\eta^2 = .10$, a medium sized effect; self-blame, $F(2, 656)= 9.56$, $p < .001$, $\eta^2 = .03$, a small sized effect; self-isolation, $F(2, 656)= 10.84$, $p < .001$, $\eta^2 = .03$, a small sized effect; seeking professional help, $F(2, 656)= 57.16$, $p < .001$, $\eta^2 = .15$, a large sized effect; risk taking, $F(2, 656)= 45.31$, $p <$

.001, $\eta^2 = .12$, a medium sized effect. Post hoc results using Tukey's HSD test indicated that 9-11 years old ones scored significantly higher on problem solving & positive focus, seeking social support and seeking professional help coping than 12-15 years old and 16-18 years old (see Table 3.31 for mean values). 9-11 years old ones scored significantly lower on aggression, self-blame and risk taking coping than 12-15 years old and 16-18 years old (see Table 3.31 for mean values). On religious coping, significant decrease was found from 9-11 to 16-18. On self-isolation coping, significant increase was found from 9-11 to 16-18.

Univariate analysis showed non-significant interaction between gender and age-group on 11 coping strategies, $p > .05$.

In total, most frequently used coping strategies were religious coping and positive reappraisal and the least used coping strategy was risk taking as shown in Table 3.31.

Table 3.31: Means (*M*) and standard deviations (*SD*) of coping strategies for gender, age-group and total scores

	Age groups <i>M</i> (<i>SD</i>)			Gender <i>M</i> (<i>SD</i>)		TOTAL
	9-11 years old	12-15 years old	16-18 years old	Female	Male	
Problem Solving & Positive Focus	3.96(.06)	3.69(.05)	3.55(.05)	3.74(.04)	3.72(.04)	3.72(.77)
Aggression	1.87(.06)	2.48(.06)	2.64(.06)	2.38(.05)	2.28(.05)	2.37(.94)
Seeking Social Support	3.65(.06)	3.25(.06)	3.05(.06)	3.37(.05)	3.26(.05)	3.30(.90)
Religious Coping	4.20(.08)	3.80(.06)	3.37(.07)	3.91(.06)	3.66(.06)	3.77(1.07)
Self-blame	3.03(.06)	3.35(.05)	3.34(.06)	3.51(.05)	2.97(.05)	3.26(.87)
Play & Humor	3.33(.08)	3.34(.07)	3.23(.07)	3.09(.06)	3.57(.06)	3.33(1.06)
Self-isolation	3.12(.07)	3.46(.06)	3.55(.06)	3.58(.05)	3.17(.05)	3.40(.99)
Seeking Professional Help	2.90(.08)	1.97(.07)	1.88(.07)	2.14(.06)	2.35(.06)	2.19(1.14)
Positive Reappraisal	3.83(.07)	3.73(.06)	3.78(.06)	3.77(.05)	3.79(.05)	3.77(.90)
Avoidance	3.51(.06)	3.41(.05)	3.36(.06)	3.46(.05)	3.39(.05)	3.42(.82)
Risk Taking	1.54(.06)	1.91(.05)	2.30(.05)	1.85(.04)	1.99(.05)	1.94(.86)

CHAPTER 4

DISCUSSION

4.1. Qualitative Findings

The aim of the focus group interviews was to create coping strategy items which are appropriate for diversity of Turkish culture and developmental levels of children and adolescents. Therefore, 26 children and adolescents and 5 parents were included for focus group interviews and answered 13 standard questions. Initial questions aims to open up conversation with ‘easy’ questions, and then different questions were asked to identify coping strategies of children and adolescents. Beside item generation, the answers were analyzed as constructing common themes with qualitative software program.

Children and adolescents defined stress mostly with the words ‘depression’ (bunalım) and ‘distress’ (sıkıntı). They preferred to say “I’m distressed” (*canım sıkılıyor*) or use gesture and facial expression to express their stress, which parents were also agreed on. Children and adolescents reported that they feel mostly angry, anxious, and fearful during stressful situations. Similarly, according to parents’ observation, their children mostly feel weak and angry when they encounter stressful situations.

Type of stressors that children and adolescents encounter was classified in seven categories. In general, academic stressors are the most stressful events for children and adolescents, and peer related, family related, interpersonal, uncontrollable, daily and performance related stressor follows that in respectively. However, developmental

differences were appeared on type of stressor they experience. For 9-10 years old children, interpersonal stressors were the most stressful events; for 11-12 years old and 15-16 years old ones, academic stressors; for 13-14 years old ones peer related stressor were the most stressful events. Parents were also reported that academic stressors like exams and homework and family stressors like restriction on freedom, arguments with siblings were the most stressful events for their children.

In order to learn coping strategies of children and adolescents, many different questions were asked. Responses were classified into 22 coping sub-categories based on relevant coping literature. Homogeneous categories were constructed as much as possible. The most repeated coping was tension reduction & relax strategies such as watching TV, listening to music, playing game, and doing hobbies. Avoidant coping strategies were secondly preferred and seeking social support followed that. The least used one was active coping, but planning and information seeking were other categories which all can be conceptualized as problem solving strategies. Therefore it cannot be assumed problem solving strategy is the least used. Rumination and professional help were the least used strategies. Similar to children and adolescents' reports, parents also reported that their children use mostly tension reduction & relax strategies. However parents also stated that blame/anger related coping was the second most used strategy, which children and adolescents did not mention so much while talking about their own coping strategies. Interestingly, when children and adolescents were asked how their peers cope with stress, anger related strategies such as fighting, yelling, and annoying others were the mostly used strategy by peers. It may arise from attribution of negatively perceived behaviors to others. Tension reduction strategies were the secondly most used by peers, according to children and adolescents' reports. Similar to children's reports for others coping, parents were also stated that risk taking strategies such as drinking, smoking, spending money excessively and tension reduction strategies were the most used strategies by other children and adolescents.

Interviews about stress and coping with children and adolescent provided valuable information on item generation for scale development and subsequent

quantitative analysis. It is also helpful for getting ideas of children/adolescents and parents' opinions about coping at the individual level. For instance, children as young as 9 years old can express their emotions, tell what makes them stressful and what they do to deal with the stressful situations, therefore children and adolescents were valuable informants for their own experiences and coping process. Even parents were provided important opinions for children and adolescents' coping, their responses were less comprehensive both qualitatively and quantitatively than children and adolescents' own reports. Children and adolescents stated coping strategies which are varied and large in numbers. The difference between parents and children/adolescents' reports may be due to coping strategies do not only contain behavioral efforts but also cognitive efforts, therefore it is hard to observe it. When parents' statements for coping strategies were analyzed, their responses includes mostly behavioral strategies such as tension-reduction, seeking social support, anger related coping and active coping except positive thinking. It may be concluded that parents' views are supplementary to children and adolescents' unique opinions for their own coping process.

Item generation is an important step in scale development, which psychometric literature often neglects how items are constructed and gives attention to reliability and validity (Rowan & Wulff, 2007). Rather than generating theoretically driven items which disregards developmental and cultural differences, conducting focus groups with children and adolescents provides valuable information unique to that culture.

In the examination of common stressors in children and adolescents lives, theoretically consistent findings were obtained (Donaldson et al., 2000). The most frequently reported stressors were academic, family and peer related. In additions, as children move to adolescence, normative stressors (e.g. concerns for future and physical appearance) were identified. Minor developmental differences were observed in reported stressors according to age-groups. Common stressors were only given for descriptive information, the relationship between coping strategies and type of stressors was not examined.

4.2. Psychometric Properties of CACSS

4.2.1. Factor Structures of CACSS

The purpose of the present study was to develop a culturally-sensitive, psychometrically sound self-report scale to measure coping strategies of children and adolescents between 9 to 18 years old. CACSS aimed to be theoretically and empirically grounded measure as considering the limitations of existing coping scales.

After the item generation and reduction processes, initial 161-item CACSS was constructed. The examination of factor structure revealed 9-factor solution in the preliminary study with total variance of 36.66 %. Factor loading greater than or equal to .30 or .40 are often interpreted as “significant” and used in determining a factor (Brown, 2006; Ford et al., 1986). Therefore based on that criterion, factor loadings less than .40 were deleted from the scale (60 items). In addition, 2 items were deleted because of increases in factor reliability. Before the second administration of 99-item CACSS, the researchers were reviewed scale items again. 11 items were deleted because of lack of congruence with factors’ content and feedback from participants about items’ lack of clarity. In that way, CACSS was reduced to 88-item scale. Final administration of the CACSS revealed 11-factor solution with total variance of 50.26 %. Newly developed scale should explain 50% of the total variance (Streiner, 1994). Therefore the level of total variance achieved by 88-item CACSS was sufficient. Factor loadings were greater than .30, item-total correlations were for each factor below .20 and inter-item correlations were lower than .80, therefore none of items were deleted in terms of these conditions (Floyd & Widaman, 1995). Conceptually and psychometrically, better results were obtained in factor structure of final administration than preliminary administration.

For the exploratory factor analysis, Varimax rotation was used. Varimax rotation produces factor structures that are uncorrelated, but oblique rotation such as Direct Oblimin produces factors that are correlated (Tabachnik & Fidell, 2013). CACSS factors were found weakly and moderately correlated. Therefore direct oblmin was also

applied to data. The direct oblimin rotation resulted in a solution similar to Varimax rotation factors, but factors were theoretically less interpretable. Thus, commonly used rotation technique, Varimax, was interpreted and presented in the study.

Factor 1, Problem Solving & Positive Focus, included items that aim to solve the problems directly or change the situation as planning, considering different viewpoints and developing skills. In addition, it involves positive self-statements and focusing on good things in life. Positive focus may help to strive and generate problem solving strategies. In literature, problem solving coping is generally associated with positive adjustment (Fields & Prinz, 1997; Piko, 2001).

Factor 2, Aggression, includes expression of anger outwardly such as teasing and blaming, and also engaging physically self-destructive behaviors in reaction to stressful situations. Literature suggested that aggression coping was positively related with externalizing symptoms and conduct problems (Dise-Lewis, 1988; Eschenbeck et al., 2012; Fields & Prinz, 1997).

Factor 3, Seeking Social Support, includes getting emotional and informal support thoughts from family, friends and older people as expressing one's feelings and thoughts to handle the stressful situations. It can strengthen the person and also help to generate solutions for the problems. In literature, seeking social support showed mixed result on adjustment. While some studies showed that it was positively related with psychological well-being; others found it was associated with internalizing symptoms (Eschenbeck et al., 2012; Fields & Prinz, 1997; Piko, 2001).

Factor 4, Religious Coping, includes positive religious coping strategies such as engaging in religious activities and seeking spiritual support to handle the problem. Positive religious coping strategies are generally related to better outcomes on mental health (Terrerri & Glenwick, 2013). It was the most used coping strategy by children and adolescents.

Factor 5, Self-blame, involves coping related with internalization of the problem, criticizing oneself for responsibility of the situation, and engaging in ruminative thoughts. Self-blame was found related with poorer psychological well-being (Compas et al., 2001).

Factor 6, Play & Humor, involves strategies such as focusing on humorous side of the problem as making jokes and playing to deal with stressors. Many coping scales do not comprise of humor coping. Coping scales that involves items about play and humor were usually conceptualized under avoidance or distraction coping (e.g. Coping with school-related stress questionnaire, Life Events and Coping Inventor, KIDCOPE).

Factor 7, Self-isolation, includes distancing self from others, not sharing problems and feelings with others in response to stressful situations. Self-isolation was found related with poorer adjustment (Compas et al., 2001).

Factor 8, Seeking Professional Help, involves strategies such asking help from institutions or qualified individuals such as counselors to cope with stressful situations.

Factor 9, Positive Reappraisal, is related to making a meaning and positive reinterpretation about the situation. It involves cognitive restructuring as learning from experience and recognizing benefits on personal growth. It is generally accepted as adaptive coping and associated with better adjustment (Fields & Prinze, 1997). It was another most used coping strategy by children and adolescents.

Factor 10, Avoidance, includes cognitive and behavioral strategies that help to escape from problems as trying to forget and not to think and distancing from others and things that remind the problem. General agreement is that avoidant coping is associated with poorer adjustment in the long-term; but it can be helpful in short period of time in some situations (Aldwin, 2007; Compas et al., 2001; Fields & Prinz, 1997).

Factor 11, Risk Taking, involves strategies to reduce the stress such as smoking, drinking alcohol, and doing something dangerous. It is generally accepted as maladaptive coping and associated with poorer adjustment (Piko, 2001). It was the least used coping strategy by children and adolescents.

4.2.2. Reliability of CACSS

Reliability estimates indicated that internal consistency of 88-item CACSS was excellent ($\alpha = .90$), indicating acceptable internal consistency for newly developed scale based on criterion of .70 or above (Nunnally & Bernstein, 1994). Therefore, it shows high reliability and can be used to measure of coping in children and adolescents. The internal consistencies of 11 subscales have ranged from a poor to an excellent. The internal consistencies of 8 out of 11 coping subscales exceed the criteria of above .70: problem solving & positive focus was excellent; aggression, social support seeking, play & humor and religious coping was good; self-blame, self-isolation and positive reappraisal was acceptable. Internal consistency of only 3 out of 11 coping subscales fall below .70 (risk taking ($\alpha = .69$), seeking professional help ($\alpha = .67$), avoidance ($\alpha = .57$). Risk taking and seeking professional help coping reached very close reliability to .70. Seeking professional help subscale has only 3 items which might decrease internal consistency, because Cronbach's alpha is influenced by the length of scale (Clark & Watson, 1995). Regarding avoidance coping, the poor alpha (.57) failed to meet the minimum criterion for internal consistency. It may be due to lack of clarity of the items or requirement a few more items to capture better avoidance coping. In addition, Compas et al., (2001) indicated that coping items usually contain highly specific strategies, which may cause low internal reliabilities. Because the use of one coping strategy may be helpful to cope with stress, it may be unnecessary to use another coping from same or other category and subsequently causes low intercorrelation of items.

Beside the Cronbach's alpha, mean inter-item correlation, which is independent of scale length, was estimated. It is a more functional indicator than Cronbach's alpha

(Clark & Watson, 1995). Mean inter-item correlations were at acceptable level for each subscale of CACSS.

In order to examine temporal stability, two week test-retest correlations were estimated. Temporal stability of total CACSS was strong and subscales varied from moderate to strong (Cohen & Holliday, 1982). The results indicated that CACSS has sufficient temporal stability in two-week interval. In addition, many coping scales did not examine the test-retest reliability of children and adolescents (Compas et al., 2001).

The internal consistencies of subscales of CACSS are comparable to other coping scales for children and adolescents, and even more favorable in some subscales. For instance, Ayers et al.'s (1994) Children's Coping Strategies Checklist has 11 subscales with internal consistencies ranging from .34 to .72 and eight of them fall below .70. Patterson & McCubbin's (1987) has 12 subscales with internal consistencies ranging from .50 to .76 and four of them fall below .70. Frydenberg & Lewis's (1993), Adolescent Coping Scale has 18 subscales with internal consistencies ranging from .54 to .85 and nine of them fall below .70. On the other hand, Brodzinsky et al.'s (1992) Coping Scale for Children and Youth has four subscales, with internal consistencies ranging .70 to .81. Seiffge-Krenke & Shulman (1990)'s CASQ has 3 subscales, ranging with .76 to 80. It would appear that coping measures that have greater number of subscales tend to contain subscales with internal consistency below than .70 than broad categories with 3 or 4 subscales.

When CACSS is compared with coping scaled that adapted to Turkish children and adolescent, SSKJ 3-8 has six subscales, with internal consistencies ranging from .76 to .85 and no test-retest reliability (Eschenbeck et al., 2012). Turkish version of CASQ has internal consistencies of .69 and .57 for subscales, and .65 for total scale, with no test-retest reliability (Öngen, 2006).

The results of internal consistencies of Cronbach's alpha and mean inter-item correlations and test-retest correlations show preliminary evidence for adequate reliability of CACSS for children and adolescents.

4.2.3. Validity of CACSS

In the examination of relationship between subscales, the magnitude of coefficients between subscales varied weak to moderate which was expected. In addition, there was no significant relationship between some subscales, which was also expected. Because it was aimed to measure different aspects of coping, highly correlated relationship would indicate that these factors are measuring same concept or pattern of coping, which cannot be distinct from each other. Significant positive correlations were found for problem solving & positive focus, seeking social support, religious coping, seeking professional help, positive reappraisal and avoidance among each other. Except avoidant coping, the positive relationship between other subscales has theoretical relevance (Ayers et al., 1996; Causey & Dubow, 1992; Eschenbeck et al., 2012). However, avoidant coping is not theoretically congruent to other subscales. Because avoidance coping includes not to think about problem and escape from it which is opposite of problem solving strategies. This incongruence might arise from the poor reliability of avoidance subscale. The items of avoidance subscale might not represent well avoidant coping.

Positive correlations were found for aggression, risk taking, self-blame and self-isolation among each other. In addition, aggression and risk taking were found negatively correlated with problem solving & positive focus, seeking social support, religious coping, and positive reappraisal. These correlations were meaningful because maladaptive strategies like aggression and risk taking contrast with problem-focused strategies. They were also theoretically in the expected direction (Ayers et al., 1996; Causey & Dubow, 1992; Eschenbeck et al., 2012).

Although the correlation between play & humor and avoidant coping measures was significant, they have weak relationship. Because items that related with playing and humor were classified with avoidance/distraction factor in other coping scales, higher correlation between play & humor and avoidance might be expected. It may arise from item quality of avoidance subscale which has poor reliability as stated before.

The findings provide support for the convergent and discriminant validity of CACSS. Conceptually similar subscales showed moderate to strong relationship. Only avoidance subscale had low significant relationship with related avoidant coping scale, which greater correlation was expected between them. As stated before, the items of avoidance coping subscale might not represent the concept truly. On the other hand, problem solving & positive focus, aggression and seeking social support subscales had strong relationships with the subscales of SSKJ 3-8 that measure same components. In addition, moderate correlations were obtained between similar constructs of CACSS and SSKJ 3-8. Problem solving & positive focus was also moderately related with seeking social support coping of SSKJ 3-8. Seeking social support of CACSS was moderately related with problem solving. Self-blame was moderately associated with anger related emotion regulation. Seeking professional help had moderate positive relationship with seeking social support. Positive reappraisal coping was moderately correlated with problem solving. Risk taking subscale had moderate positive relationship with anger related emotion regulation. Play & humor coping subscale was found positively related with avoidant coping, palliative emotion regulation and media use. Because these subscales can be considered also as avoidant/distraction coping, the association was meaningful even the relationship was low in magnitude. Subscales of CACSS were not correlated with scales of SSKJ 3-8 that measure different constructs as expected. Thus, findings achieved adequate convergent and discriminant validity with SSKJ 3-8.

The correlations between CACSS and SDQ indicated initial support for construct validity. Most of the correlations between coping factors and subscales of SDQ make theoretical sense. Aggression and risk taking coping was moderately and positively correlated with conduct problems and total difficulty score. These results are

theoretically consistent with previous studies that self-destruction, aggression and risk taking coping were found positively related with externalizing and higher level symptoms and negatively related with psychological well-being (Dise-Lewis, 1988; Eschenbeck et al., 2012; Fields & Prinz, 1997; Piko, 2001). Aggression and risk taking had also significant positive relationship with hyperactivity/inattention, but magnitude was low. This finding was also congruent with study by Eschenbeck et al. (2012). Self-blame and self-isolation coping had positive relationship with emotional symptoms and total difficulty score. Magnitude was moderate for self-blame, but low for self-isolation. These results were also in agreement with previous research that self-blame and self-isolation was positively associated with internalizing symptoms, higher level depression and poorer adjustment (Compas et al., 2001). It appears that aggression and risk taking coping relates with externalizing symptoms; however self-blame and self-isolation relates with internalizing symptoms. Moreover, aggression, self-isolation and risk taking coping were significantly and positively correlated with all emotional and behavioral symptoms, with magnitude very low to moderate.

Problem solving & positive focus subscale was significantly and negatively associated with all emotional and behavioral symptoms. In addition, seeking social support, religious coping, positive reappraisal, and problem solving & positive focus subscales had positive relationship with prosocial behavior, but low in magnitude. Problem solving, positive reappraisal, positive religious coping and seeking social support was found positively associated with better adjustment and psychological well-being (Fields & Prinz, 1997; Piko, 2001; Terreri & Glenwick, 2013). Even some correlations were low in magnitude; they indicate significant findings that have theoretical evidences. Play & humor coping did not significantly correlated with any other behavioral and emotional symptoms also not with prosocial behavior. Humor and playing was associated with better psychological adjustment in previous studies (Güney 1992; Kuiper & Martin, 1993). However, play & humor was not negatively correlated with behavioral and emotional symptoms, and was not positively correlated with prosocial behavior in the present study.

Contrary to expectations, avoidance coping had very low relationship to interpret the findings theoretically. Even the magnitude is very low, avoidance coping had negative significant relationships with emotional symptoms, conduct problems and total difficulty score which was opposite of previous research. Avoidant coping was found related with poorer adjustment (Compas et al., 2001; Sandler et al., 1994). At the same time, avoidance coping might be helpful in the short-term use (Aldwin, 2007). In addition, it might be situation-dependent. Avoidant coping was found helpful in response to peer conflicts especially for victimized boys (Kochenderfer-Ladd & Skinner, 2002). The findings may be due to short-term efficiency or situation-dependent effect of avoidance coping, or inadequacy of items in the subscale. On the other hand, in another study with Turkish children and adolescents, avoidance coping, which had adequate reliability, was found negatively and weakly related with peer problems. No significant relationship was found with other emotional and behavioral symptoms (Eschenbeck et al., 2012). When analyzed both studies with Turkish children and adolescents, avoidance coping may be used efficiently to reduce the stress in Turkish culture. Even though, the results for the relations between coping strategies and psychological well-being have high consistencies with previous research, benefits of coping can be culturally relative.

On the other hand, play & humor and seeking professional help coping appeared to be independent of emotional and behavioral problems, as both showing non-significant relationship with the problems analyzed. Only seeking professional help was positively associated with prosocial behavior, but which was very negligible.

4.2.4. The Effects of Age and Gender on Coping

The effects of gender and age on coping strategies were examined. The analysis revealed that there are gender differences on religious coping, self-blame, play & humor, self-isolation, seeking professional help and risk taking coping. Females used more religious coping than males, consistent with previous research (Terrori & Glenwick, 2013). Gender differences in religious coping might reflect different

socialization process or greater tendency to seek help from God to withstand difficulties among females (Thompson, 1991). Regarding self-blame and self-isolation coping, females reported greater use than males. Previous studies had evidence girls are more likely to use self-blame, boys are more likely to use self-isolation strategies (Frydenberg, 2008). However, no gender difference was found in meta-analysis for self-blame and self-isolation (Tamres et al., 2002). In addition, males used more play & humor coping than females, consistent with other research (Führ, 2002). Males also used more seeking professional help and risk taking coping. From the point of gender socialization, girls are more likely to ruminate about problems and to internalize anger and aggression rather than externalize. While girls are taught to discuss about problems and be aware of problems, boys are taught to keep them to self and avoid negative feelings (Gilligan, 1982). Thus, the results for self-blame coping, risk taking and play & humor coping are congruent with gender socialization differences. Females tended to internalize and ruminate about problems more than males. Play & humor coping might be used as a distraction and avoidance of negative feelings by males. The result for self-isolation coping is incongruent with gender socialization. Even the findings for self-isolation are inconsistent, boys might be expected to use more self-isolation and keep the feelings to self, because girls are more likely to share and discuss about their problems.

Consistent with study by Eschenbeck et al. (2012), no gender differences found for problem solving & positive focus and aggression coping. On the other hand, even though the results were not significant; girls used more seeking social support than boys which is also consistent with gender socialization differences.

The age differences on coping were examined in 3 age groups: middle childhood (9-11), early adolescence (12-15) and middle adolescence (16-18). The results revealed that there are developmental differences on problem solving & positive focus, aggression, seeking social support, religious coping, self-blame, self-isolation, seeking professional help and risk taking coping. 9-11 years old ones reported greater use of problem solving & positive focus, seeking social support and seeking professional help

coping than older ones. Even though previous studies on developmental changes for problem solving coping was a bit inconsistent, older children used less problem solving strategies than younger ones (Frydenberg, 2008; Roecker et al., 1996). However, with relation to cognitive development, older children are more likely to use various cognitive strategies than younger children, which is in contradiction with the present findings. Developmental decrease in seeking social support is consistent with previous research (Skinner and Zimmer-Gembeck, 2007), but not consistent for seeking professional help (Schonert-Reichl & Muller, 1996). As children progress to adolescence, they are more likely to rely on their own resources with increased need of autonomy. In addition, they may prefer to seek support from friends rather than parents and professionals as they get older.

The finding that 9-11 years old children used less aggression, self-blame and risk taking coping than older adolescents, is consistent with previous research by Frydenberg & Lewis (1993b) and Hampel & Petermann (2005). In addition, developmental increase was found on self-isolation coping from middle childhood to middle adolescents. Adolescents encounter a wide of range stressful situations with regard to developmental changes during this stage (Patterson & McCubbin, 1987). Thus, an increase in maladaptive coping strategies during adolescence, as shown in the present study, may have a risk for the development of psychopathology.

On the other hand, developmental decrease was found on religious coping from middle childhood to middle adolescents. The inadequacy of research on developmental changes of religious coping limits the comparison of present findings. Younger children developmentally have less repertoire of coping strategies and limited cognitive skills than older children (Donaldson et al., 2000). Thus, younger children might seek spiritual support when they feel less control over the stressor.

When the frequency of use of coping strategies is examined, positive reappraisal and religious coping were found the mostly used strategies, problem solving & positive focus was the secondly most used strategy. On the other hand, risk taking coping was

the least used strategy and seeking professional help was secondly least used strategy. These results indicate the significance of culture on coping. For instance, in the study with Spanish adolescents, the mostly used coping was searching for friendship and the least used was seeking spiritual support (Forns et al., 2013). In another study with Australian adolescents, the mostly used coping strategies were seek relaxing diversion, work hard to achieve, physical recreation and solving the problem, while seeking spiritual support, seeking professional support, not coping and engaging in social action were the lowest in usage (Frydenberg, 1996). According to these findings, Turkish children and adolescents, compared to Western countries, are more likely to engage in religious coping. The great majority in Turkey belong to the religion of Islam. The influence of religion in social life and religious education in the family and in schools might affect appraisal of the stressor of children and adolescent. The religion of Islam encourages people to seek help from God in difficult times and also look for positive meaning in negative events. Thus, higher usage in religious coping and positive reappraisal might be interpreted in that view. On the other hand, risk taking and seeking professional help as the least used coping strategies may be normative. Because seeking professional help is mostly depend on parents' decisions and risk taking includes highly maladaptive behaviors, lower usage of these strategies might be anticipated.

4.3. Contributions and Implications of the Study

Findings of the current study have several strengths over the existing coping scales and implications for research and clinical practice.

First of all, CACSS is the first coping strategies scale that specifically developed for children and adolescents in Turkey. Secondly, it considers cultural differences, because item generation was based on focus group interviews rather than generating only theoretically driven items. Thus, the items of CACSS appear to represent diversity of Turkish culture as well as Eastern culture. Beside the focus group interviews, existing children and adolescents coping scales that based on Western culture were also used in the development of CACSS. Thus, it can be also used universally. Thirdly, CACSS

takes into account developmental differences by generating items through own words of children and adolescents rather than using exact items of adult coping. Fourth, CACSS is multidimensional scale that measures different aspects of coping and provides more comprehensive and also specific information. Fifth, sample size was large enough to represent population (Worthington & Whittaker, 2006). Moreover, conducting the study at both public and private schools as well as in different regions of Istanbul, which represent various socio-economic status, increase sample diversity and generalizability of the results. Sixth, unlike other coping measures, CACSS represents greater age range for 9-18 years-old children and adolescents. Seventh, it provides preliminary evidence for reliability and validity which are not available for many other coping scales. Eighth, children and adolescents were asked to rate coping items in response to self-identified stressors rather than hypothetical situations which may not relevant to them. Ninth, subscales can be used separately if researcher is interested in only one dimension of coping.

CACSS has several implications for clinical purposes. With the knowledge of how children and adolescents cope with stress; individual treatment plans, stress management programs, and psycho-education groups can be developed for children and adolescents. Stress management programs were criticized for the neglect of developmentally appropriate strategies (Compas, Phares & Ledoux, 1989). Thus, CACSS presents developmentally appropriate strategies for the intervention programs. Maladaptive coping strategies can be identified and alternative coping strategies can be taught to cope with and reduce the stress. Problem solving skills may help to increase children and adolescents' coping resources in stressful situations. Cognitive restructuring techniques may help to change their irrational thoughts to more realistic thoughts, which can lead to more adaptive strategies. Thus, teaching adaptive strategies may help to function as a preventive factor that strengthen the skills of children and adolescents and also as a protective factor for future problems. Moreover, maladaptive coping patterns during adolescence, as shown in the present study, make adolescents as a risk population that needs to be supported by preventive intervention programs.

Another implication of the study is the relation between coping strategies of different clinical populations and their symptomatology can be understood.

Regarding implication of CACSS for research purposes, it might be useful assessment tool in evaluating the efficiency of stress management programs or any other interventions programs by providing pre-treatment and post-treatment information. In addition, the research had been conducted with existing coping scales that have poor psychometric properties drew limited conclusions. Thus, CACSS can facilitate research on the relationships coping and mental health. Moreover, CACSS can be used to examine coping of children and adolescent from disadvantaged background. In addition, the generation and development procedure of CACSS as including both qualitative and quantitative methodology will be beneficial for future scale development studies not only in coping research but also for various domains in Turkish literature, which is very limited on scale development research.

4.4. Limitations and Suggestions for Future Research

Even though results from the current study provide initial support for the validity and reliability of the CACSS, there are several limitations and future directions which are needed to be addressed.

One of the important limitations is poor reliability of avoidance subscale. The items may not represent the content of the scale sufficiently. Beside, seeking professional help subscale has only 3 items which is not enough to represent the content of the subscale. Further research should add new items that capture better avoidance coping and seeking professional help before conducting new factor analysis.

In the qualitative study of the present research, the most reported coping was tension reduction/relax strategies. However, in the preliminary analysis of EFA, the items that represent tension reduction strategies were eliminated. Thus, CACSS do not have a subscale that assesses that dimension. It might be due to lack of item quality that

represent tension reduction coping or overestimate of these strategies during interviews. Children might find easier to tell their hobbies and leisure time activities as influenced by each other responses.

In the present study, self-identified stressors rather than standard ones were asked to response. The aim was to understand which item works in the context of many stressors as possible. Therefore, factor structure of CACSS was obtained without relation to specific stressor. However, there is a debate regarding generalizability or specificity of coping scales in the literature (Aldwin, 2007). In addition, the present study provided only descriptive statistics for common stressors in children and adolescents' lives. Future studies should examine the link between type of stressors and coping strategies, which is also significant information to understand coping across context. In addition, coping strategies are not only influenced by type of stressor, but also appraisal of stressor, perceived controllability of stressor, perceived coping efficacy and the severity of situation might affect the choice of coping strategies as well (Aldwin, 2007). Further studies should also examine these factors with the relation of coping.

Other limitation is the length of the scale. It can be boring for young children and the responses at the beginning of the scale might be more accurate than those at the end of the scale. Thus, it might be useful to develop short form of CACSS.

Beside the self-report data of children and adolescents, information from parents and teachers regarding children and adolescents' coping may provide more detailed picture of coping. Children and adolescents' responses might reflect their wish rather than accurate coping. However, there is evidence of consistency between children's own coping responses and their peers view for their coping (Causey & Dubow, 1992). Nevertheless, future studies can develop a parent/teacher form of coping and examine the relations between them.

Another limitation is the responses might be affected from social desirability bias especially items includes socially unacceptable behaviors. Even though the students

were assured about anonymity of the responses, they might not have given honest responses for aggression and risk taking subscales. Therefore, future studies should examine if students provide socially desired answers with using social desirability questionnaires.

Exploratory factor analysis was criticized for derivation of different factor structures and having less conceptual clarity for extracted factors (Ayers et al., 1996). Even though, CACSS appears to have conceptually distinctive categories, future research is needed to determine whether factor structure and psychometric properties of CACSS are consistent across in different sample as well as in different regions of Turkey. In addition, confirmatory factor analysis might be conducted after exploratory factor analysis to confirm factor structure.

Even though, the present study found association between some coping scales and behavioral/emotional symptoms; further research is needed in order to determine if coping strategies predict levels of the symptomatology as well as which coping patterns are more associated with psychopathology by using other instruments. In addition, it is unclear that whether the maladaptive coping strategies lead to poorer adjustment or vice versa. Further research should examine the relation of coping strategies with psychological well-being in longitudinal research. In that way, the causal relation between coping and adjustment can be better understood.

4.5. Conclusion

CACSS was developed to assess coping strategies of children and adolescents between 9 to 18 years old in response to self-identified stressors. The present study provided preliminary evidence for psychometric properties of the CACSS, including internal consistency reliabilities, temporal stability, construct validity, convergent and discriminant validity. It appears to have clear factor structure that present qualitative knowledge about the coping strategies. CACSS includes 88 items and 11 subscales: problem solving & positive focus, aggression, social support seeking, play & humor,

religious coping, self-blame, self-isolation, positive reappraisal, risk taking, seeking professional help, and avoidance coping. In addition, gender and developmental differences were obtained in the use of coping strategies by children and adolescents.

CACSS, by addressing limitations of existing coping scales, contributes to literature as providing psychometrically sound, developmentally appropriate, multidimensional and culturally sensitive scale. Therefore, CACSS appears to be useful tool for the assessment of children and adolescents' coping strategies and it is recommended for research or clinical purposes.

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APPENDICES

APPENDIX 1

Children and Adolescents Coping with Stress Scale (CACSS)

Çocuklar ve Gençler için Stresle Başa Çıkma Ölçeği

Çocuklar, değişik durumlar (örneğin aileyle ilgili, arkadaşlıkla ilgili, okulla ilgili, hastalıkla ilgili vb.) nedeniyle üzülebilir, canları sıkılabilir ya da sorun yaşayabilirler. Bizler de, bu durumların neler olduğunu öğrenmek ve çocukların bu durumlarla nasıl başa çıktığını daha iyi anlamak için bir çalışma yapıyoruz.

Lütfen sen de son 1 yıl içinde yaşadığın seni üzen ya da canını sıkın 3 durumu aşağıdaki boşluğa yaz.

- 1.....
- 2.....
- 3.....

Çocuklar kendilerini üzen ya da canlarını sıkın sorunlar olduğunda bu sorunları çözmek ya da kendilerini daha iyi hissetmek için farklı şeyler yaparlar.

Arka sayfada her bir maddede, çocukların sorunlar karşısında yaptıkları farklı şeyler yer almaktadır. Bu maddelerde yazanların bazıları sana uyuyor, bazılarıysa uymuyor olabilir. Lütfen, her bir maddeyi dikkatlice okuyarak bu maddede yazan ifadenin sana ne kadar uyup uymadığını işaretle.

Eğer maddede yazan şey “**bana hiç uymuyor**” diyorsan **1**'i işaretle.

Eğer maddede yazan şey “**bana pek uymuyor**” diyorsan **2**'yi işaretle.

Eğer maddede yazan şeyin sana uyup uymadığı konusunda kararsızsan ve “**emin değilim**” diyorsan **3**'ü işaretle.

Eğer maddede yazan şey “**bana biraz uyuyor**” diyorsan **4**'ü işaretle.

Eğer maddede yazan şey “**bana tamamen uyuyor**” diyorsan **5**'i işaretle.

1. Beni üzen şeyleri zihnimden uzaklaştırmaya çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
2. Pes etmem, sorunun üstüne giderim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
3. Kavga çıkarırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
4. Yaşananlardan bir ders çıkarmaya çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
5. Sürekli olup bitenlerle ilgili düşünürüm.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
6. Dua ederim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
7. Olayla ilgili şakalar/ espriler/komiklikler yaparım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
8. Sıkıntımı ailemden birisiyle (annem, babam, kardeşim, ablam, ya da ağabeyim) paylaşıyorum.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
9. Birileriyle tartışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
10. Oyun oynarım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
11. Bu yaşananların benim için önemli bir yaşam deneyimi olduğunu düşünürüm.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
12. Farklı kişilerden öneri (tavsiye) almaya çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
13. Duygularımı rahatça dışa vururum.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5

	1	2	3	4	5
14. Kendime “güçlü ol” derim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
15. Bana sorunumu hatırlatan kişilerden ya da şeylerden uzak durmaya çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
16.Öfkemi birilerinden çıkarırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
17. Benzer sıkıntı yaşıyor olsalardı ne yaparlardı diye çevremdekilerle konuşurum.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
18. Odama çekilirim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
19.Sorunu çözmek için farklı yollar denerim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
20.Etrafımdakilere sataşırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
21. Kendime bunların üstesinden gelebileceğimi söylerim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
22. Bu deneyimin bana kattığı olumlu şeyleri düşünürüm.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
23. Sorunumu çözmek için arkadaşımın yardım isterim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
24. Aynı şeyin bir daha yaşanmaması için nedenlerini anlamaya çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
25.Şükrederim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
26.Bağırıp çağırırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5

	uymuyor 1	uymuyor 2	değilim 3	uyuyor 4	uyuyor 5
27.Duygularımı başkalarıyla paylaşırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
28.Sorunu çözmek için bir plan yapıp uygularım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
29. Olanları unutmaya çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
30.Aynı sorunu yaşamış kişilerle konuşurum.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
31.Başkalarını suçlarım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
32.“Geçmişte başardın, yine başarırısın.” diye kendime hatırlatırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
33.Yalnız kalmaya çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
34. Her şeyin daha iyi olması için bir şeyleri değiştirmeye çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
35. Bu durumu engelleyemediğim için kendimi kötü hissederim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
36. Olayın komik yanlarını görmeye çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
37. Sorun üzerinde düşünerek ne yapabileceğimi bulmaya çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
38.Kendime söylenirim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5

39. Sinirimi etraftaki şeylerden çıkarırım (kapıları çarpmak, bir şeylere vurmak, tekmelemek, kırmak, dökmek gibi)	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
40. İlaç vermesi için doktora giderim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
41. Dinime sığınırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
42. Benzer sorun yaşayan kişilerle bir arada olmaya çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
43. Okulla ilgili görevlerimi aksatırım (ev ödevlerini aksatmak, okulu asmak vb.).	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
44. Bu duruma neden olduğum için kendimi suçlarım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
45. Soruna farklı açılardan bakmaya çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
46. Ağlarım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
47. İçki içerek rahatlamaya çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
48. Sorunumu çözmek için kardeşim, ablam ya da ağabeyimden yardım isterim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
49. Olanları kafama takmamaya çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
50. Normalde tepki göstermeyeceğim şeylere tepki göstermeye başlarım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
51. Doğru ve yanlışlarım neydi diye bakarım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5

	1	2	3	4	5
52. Sessiz bir yere gidip kendimi dinlerim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
53. Sorunu kafamda büyütmemeye çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
54. Benzer sorunları yaşayıp, üstesinden gelmiş kişileri kendime örnek alırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
55. İntikam planları yaparım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
56. Çevremdekilere söylenirim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
57. Yaşadıklarımın beni bir insan olarak olgunlaştırdığını düşünürüm.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
58. Geçmişte işime yaramış olan çözüm yollarını hatırlayıp, onları uygularım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
59. Komik şeylere (komedi filmi, komik videolar, karikatür vb.) odaklanırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
60. İçimden ya da sesli olarak küfreder ya da kötü şeyler söylerim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
61. Aynı şeyin bir daha yaşanmasını engellemek için hayatımda ya da davranışlarımda bir takım değişiklikler yaparım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
62. Sorunumu çözmek için ailem dışında bir büyükten yardım isterim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
63. Düşünmeden para harcarım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
64. Her şeyi değiştirecek bir mucize olmasını dilerim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5

	uymuyor 1	uymuyor 2	değilim 3	uyuyor 4	uyuyor 5
65. Sürekli olarak “öyle mi yapsaydım, böyle mi yapsaydım” diye düşünüp dururum.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
66. Sorunu çözmemde yardımcı olacak beceriler geliştirmeye çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
67. Kendime kızarırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
68. Sigara içerim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
69. Sorunu küçük adımlara bölerek çözmeye çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
70. Durumu şakaya vururum.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
71. Benden daha kötü durumda olan insanlar olabilir diye düşünüp şükrederim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
72. Çözüm yolu aramaktan vazgeçerim.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
73. Her şeyin kendi hatam olduğunu düşünürüm.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
74. Çözüm üretmek için başkalarıyla konuşurum.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
75. Yaşamımdaki güzel şeyleri düşünmeye çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
76. Kendime fiziksel olarak zarar veririm. (örneğin; kendimi ısırarak, yaralamak, kesmek gibi)	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5

77. Bana yardımcı olabilecek kurum/kuruluşlara başvururum.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
78. Sorunu çözmek için elimdeki kaynakların yeterli olup olmadığını değerlendiririm.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
79. Sonucunu düşünmeden kendimi tehlike durumların içine sokarım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
80. Tamamen sorunu çözmeye odaklanırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
81. Profesyonel bir kişi (psikiyatrist, psikolog) ile görüşürüm	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
82. Duygularımı kendime saklarım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
83. Çok daha kötüsü olabilirdi diye düşünüp kendimi rahatlatmaya çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
84. Sorunun nereden kaynaklandığını anlayıp, ona uygun bir çözüm üretmeye çalışırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
85. Aklıma komik şeyler getiririm.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
86. Beni anlayacak birilerine derdimi anlatırım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
87. Durumu değiştirmek için neler yapabileceğimi düşünürüm.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5
88. Sıkıntımı içime atarım.	Bana hiç uymuyor 1	Bana pek uymuyor 2	Emin değilim 3	Bana biraz uyuyor 4	Bana tamamen uyuyor 5

APPENDIX 2

The Strengths and Difficulties Questionnaire (SDQ) – Self-rated form

GÜÇLER VE GÜÇLÜKLER ANKETİ (SDQ-Tur)

E 11-17

Her cümle için, Doğru Değil, Kısmen Doğru, Tamamen Doğru kutularından birini işaretleyiniz. Kesinlikle emin olamazsanız ya da size anlamsız görünse de elinizden geldiğince tüm cümleleri yanıtlamanız bize yardımcı olacaktır. Lütfen yanıtlarınızı son 6 ay içindeki durumunuzu göz önüne alarak veriniz.

Kız / Erkek

	Doğru Değil	Kısmen Doğru	Kesinlikle Doğru
İnsanlara karşı iyi davranmaya çalışırım. Onların duygularını önemserim.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uzun süre kıpırdamadan oturamam, huzursuz olurum.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Çok fazla baş ağrım, karın ağrım ya da bulantım olur.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Genellikle başkalarıyla paylaşıyorum (Örn. Yiyeceklerimi, oyunlarımı, kalemimi v.s.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Çok öfkelenirim ve sıkça kontrolümü kaybederim.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Genellikle kendi başıyım. Genelde yalnız oynarım ya da başkalarıyla birlikte olmaktan kaçınırım.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Genellikle bana söyleneni yaparım.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Çok endişelenirim.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eğer birisi incinmiş, morali bozulmuş ya da kendini kötü hissediyor ise ona yardım ederim.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sürekli, ellerim ve ayaklarım kıpır kıpırdır, ya da oturduğum yerde kıpırdanıp dururum.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
En az bir yakın arkadaşım var.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Çok kavga ederim. Diğer insanlara istediğimi yaptırabilirim.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sıkça mutsuz, kederli yada ağlamaklıyım.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Yaşıtlarım genelde beni sever.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dikkatim kolayca dağlır, dikkatimi toplamakta güçlük çekerim.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Yeni ortamlarda gerginim. Kendime güvenimi kolayca kaybederim.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kendimden küçüklere iyi davranırım.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sıkça hile yapmak ya da yalan söylemekle suçlanırım.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diğer çocuklar ya da gençler bana takarlar ya da benimle alay ederler.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sıkça başkalarına (anne baba, öğretmen, çocuklar) yardım etmeye istekli olurum.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bir şeyi yapmadan önce düşünürüm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ev, okul ya da başka bir yerden benim olmayan şeyleri alırım.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Erişkinlerle yaşıtlarımdan daha iyi geçinirim.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pek çok korkum var. Kolayca ürkerim.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Yaptığım işleri bitiririm. Dikkatim iyidir.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Strengths and Difficulties Questionnaire (SDQ) – Parent form

GÜÇLER VE GÜÇLÜKLER ANKETİ (SDQ-Tur)

AB 4-16

Her cümle için, Doğru Değil, Kısmen Doğru, Tamamen Doğru kutularından birini işaretleyiniz. Kesinlikle emin olamazsanız ya da size anlamsız görünse de elinizden geldiğince tüm cümleleri yanıtlamanız bize yardımcı olacaktır. Lütfen yanıtlarınızı çocuğunuzun son 6 ay içindeki davranışlarını göz önüne alarak veriniz.

Kız / Erkek

	Doğru Değil	Kısmen Doğru	Kesinlikle Doğru
Diğer insanların duygularını önemser.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Huzursuz ve aşırı hareketlidir, uzun süre kıpırdamadan duramaz.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sıkça baş ağrısı, karın ağrısı ve bulantı şikayetleri olur	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diğer çocuklarla kolayca paylaşır. (yiyeceğini, oyuncasını, kalemını v.s.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sıkça öfke nöbetleri olur yada aşırı sinirlidir.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Daha çok tek başınadır, yalnız oynama eğilimindedir.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Genellikle söz dinler, büyüklerin isteklerini yapar.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Birçok kaygısı vardır. Sıkça endişeli görünür.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eğer birisi incinmiş, morali bozulmuş yada kendini kötü hissediyor ise ona yardımcı olur.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sürekli elleri ayakları kıpır kıpırdır yada oturduğu yerde kıpırdanıp durur.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
En az bir yakın arkadaşı vardır.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sıkça diğer çocuklarla kavga eder yada onlarla alay eder.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sıkça mutsuz, kederli yada ağlamaktadır.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Genellikle diğer çocuklar tarafından sevilir.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dikkati kolayca dağılır. Dikkatini toplamakta güçlük çeker.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Yeni ortamlarda gergin yada huysuzdur. Kendine güvenini kolayca kaybeder.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kendinden küçüklere iyi davranır.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sıkça yalan söyler yada hile yapar.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diğer çocuklar ona takarlar yada onunla alay ederler.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sıkça başkalarına (anne baba, öğretmen, diğer çocuklar) yardım etmeye istekli olur.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bir şeyi yapmadan önce düşünür.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ev, okul yada başka yerlerden çalar.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Büyüklerle çocuklardan daha iyi geçinir.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pek çok korkusu var. Kolayca ürker.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Başladığı işi bitirir, dikkat süresi iyidir.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX 3

Stress and Coping Questionnaire for Children and Adolescents (SSKJ 3–8)

1. Ne olduğunu aileden birisine anlatırım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
2. Sinirlenirim ve kapıyı güm diye kapatırım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
3. Problemi çözecek bir yol için karar veririm.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
4. Dinlenirim.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
5. Televizyon seyredirim.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
6. Yeniden güç toplamak için istirahat ederim.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
7. Bir arkadaşımın bana yardım etmesini rica ederim.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
8. Kendi kendime söylenirim.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
9. Problem yokmuş gibi davranırım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
10. Radyoyu veya CD çaları açarım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
11. İlk olarak kendim için bir mola veririm.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
12. Çok sinirlenirim.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
13. Birisinden beni sakinleştirmesini isterim	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
14. Her şey yolundaymış gibi davranırım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
15. İnternete girerim.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5

16. O an kendimi nasıl hissettiğimi birisine anlatırım	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
17. İlk önce şöyle bir rahatıma bakarım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
18. Sorunu yakından ele alırım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
19. Bu konuda çok da fazla kafa yormam.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
20. Cep telefonum ile oynarım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
21. Gerçekten tadını çıkarabileceğim bir şeyler yaparım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
22. Kendime her şeyin kendiliğinden hallolacağını telkin ederim.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
23. Çevremdekilere kötü ruh halimi hissettiririm.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
24. Problemi nasıl çözebilirim diye düşünürüm.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
25. Video ya da bilgisayar oyunu oynarım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
26. Tepem tamamen atar.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
27. Beni rahatlatacak bir şeyler yapmaya çalışırım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
28. Birisinden bana problemi çözmek için yardım etmesini rica ederim.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
29. Bir sonraki sefer her şeyi daha iyi yapmaya çalışırım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
30. MP3 çaları açarım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
31. Sinirlenirim ve bir şeyleri kırarım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5

32. Beni bu konu hiç ilgilendirmiyormuş gibi yaparım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
33. Bu olayın tekrar yaşanmaması için özel bir çaba harcarım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
34. Erkek veya kız arkadaşına olanları anlatırım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
35. Her şeyin çok da kötü olmadığını düşünürüm.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5
36. Her şeyin daha iyi olması için bir şeyleri değiştirmeye çalışırım.	Hiç 1	Nadiren 2	Bazen 3	Sık Sık 4	Her zaman 5

APPENDIX 4

List of Child and Adolescent Scales used in the Item Pool

List of Child and Adolescent Scales	
Author	Scale Name
1. Ayers et al. (1996)	Children's Coping Strategies Checklist
2. Brodzinsky et al. (1992)	Coping Scale for Children and Youth
3. Causey & Dubow (1992)	Self-report Coping Measure
4. Connor-Smith et al. (2000)	Responses to Stress Questionnaire
5. Dise-Lewis (1988)	Life Events and Coping Inventory
6. Ebata & Moos (1991)	The Coping Responses Inventory – Youth Form
7. Eschenbeck et al. (2012)	German Stress and Coping Questionnaire for Children and Adolescents
8. Frauenknecht & Black (1995)	Social Problem-Solving Inventory for Adolescents
9. Frydenberg & Lewis (1993)	Adolescent Coping Scale
10. Garnefski, Rieffe, Jellesma, Terwogt, & Kraaij (2007)	Cognitive Emotion Regulation Questionnaire
11. Halstead et al. (1993)	Ways of Coping Checklist (modified)
12. Hernandez, Vigna, & Kelley (2010)	The Youth Coping Responses Inventory
13. Kochenderfer-Ladd & Skinner (2002)	What I Would Do
14. Mayberry, Steer, Reupert & Goodyear (2008)	Kids Coping Scale
15. Patterson & McCubbin (1987)	Adolescent Coping Orientation for Problem Experiences inventory
16. Reid, Gilbert, & McGrath (1998)	Pain Coping Questionnaire
17. Ryan-Wagner (1990)	Schoolagers' Coping Strategies Inventory
18. Seiffge-Krenke & Shulman (1990)	Coping Across Situations Questionnaire
19. Spirito, Stark & Williams (1988)	Kidcope
20. Walker, Smith, Garber, & Van Slyke (1997)	Pain Response Inventory
21. Wrzesbiewski & Chylinka (2007)	Coping with school-related stress questionnaire

APPENDIX 5

Focus Group Questions for Children and Adolescents

1. Stres deyince ne anlıyorsunuz?
2. Sizin yaş grubunuz stres yerine başka hangi kelimeler kullanırlar?
3. Sizce çocuklar/gençler neleri stresli bulurlar?
4. Sizler kendi hayatınızda neleri stresli bulursunuz?
5. Hayatınızdaki stresli olaylara nasıl baş edersiniz? Stres yaratan durumu ortadan kaldırmak ya da değiştirmek için ne yaparsınız? Yaşadığınız sıkıntıları çözmek için ne yaparsınız?
6. Stresli olduğunuz zaman genellikle hangi duyguları hissedersiniz?
7. Stres altında olduğunda kendinizi daha iyi hissetmek için ne yaparsınız?
8. En çok ne yapmak mutsuzluğunu / kızgınlığını / üzüntünü azaltır?
9. Sizinle benzer sıkıntıları yaşayan bir arkadaşınıza kendisini iyi hissetmesi için ne önerirdiniz?
10. Sizinle benzer sıkıntılar yaşayan kişilerin sizden daha farklı yaptığı bir şey var mı? Onlar nasıl tepki verir, nasıl başa çıkar?
11. En son yaşadığınız stresli olay neydi? Ne yaptınız?
12. Sizi sinirlendiren/ endişelendiren / kötü hissettiren herhangi bir şey olduğunda, en çok ne yapmak size yardımcı olur? Çok fazla işe yaramasa da yaptığınız şeyler nedir?
13. Olayla ilgili olarak hissettiklerinizi/düşündüklerinizi değiştirmek için ne yaparsınız?

APPENDIX 6

Focus Group Questions for Parents

1. Çocuklarınız stres deyince ne anlıyor?
2. Çocuklar ve gençler stres yerine başka hangi kelimeler kullanırlar?
3. Sizin çocuklarınız neleri stresli bulurlar?
4. Çocuğunuz yaşamdaki stresli olaylarla genellikle nasıl baş eder? Stres yaratan durumu ortadan kaldırmak ya da değiştirmek için neler yapar? Yaşadığı sıkıntıları çözmek için ne yapar?
5. Çocuklarınız duygularını nasıl adlandırırlar?
6. Stres altında olduklarında kendilerini daha iyi hissetmek için ne yaparlar?
7. En çok ne yapmak mutsuzluklarını / kızgınlıklarını / üzüntülerini azaltır?
8. Her zaman başa çıkma biçimlerini davranışlarla göremeyiz. Bazen de bu daha zihinsel ve içsel süreçlerle olur. Gözlemlenmese bile sizce içlerinde çocuklarınız nasıl başa çıkıyor?
9. Çocuğunuz, başkaları bir sıkıntı yaşadığında, kendini iyi hissetmesi için ne tür önerilerde bulunur?
10. Çocuğunuzun yaşlılarına baktığınızda onların tepkileri nasıldır, nasıl başa çıkarlar?
11. Çocuğunuzun en son yaşadığınız stresli olay neydi? Ne yaptı? Nasıl başa çıkmaya çalıştı?
12. Çocuğunuz sorunlarla başa çıkmaya çalışırken aile olarak ona ne önerirsiniz?

APPENDIX 7

Permission of Ministry of National Education



T.C.
İSTANBUL VALİLİĞİ
İl Millî Eğitim Müdürlüğü

Sayı : 59090411/20/1237827
Konu: Araştırma (Nejla YILDIZ)

25/03/2014

VALİLİK MAKAMINA

- İlgi:a) Bahçeşehir Üniversitesinin 13.03.2014 tarih ve 14-36 sayılı yazısı.
b) MEB. Yen. ve Eğt. Tek. Gn.Md. 07.03.2013 tarih ve 316 sayılı 2012/13 nolu genelgesi.
c) Millî Eğitim Araştırma ve Anket Komisyonunun 24.03.2014 tarihli tutanağı.

Bahçeşehir Üniversitesi Sosyal Bilimler Enstitüsü Yüksek Lisans Öğrencisi Nejla YILDIZ'ın "*Çocuk ve Ergenler İçin Stresle Başa Çıkma Ölçeği Geliştirme*" konulu tezine dair araştırma çalışmasını ekli listedeki okullarda; stres anketi, güçler ve güçlükler anketi, çocuk ve gençler için stres ile başa çıkma stratejileri ölçeği, bilgilendirilmiş olur formu uygulama istemi hakkındaki ilgi (a) yazı ve ekleri Müdürlüğümüzce incelenmiştir.

Araştırmacının; söz konusu talebi; bilimsel amaç dışında kullanılmaması, veri toplama araçlarının eğitim -öğretimi aksatmayacak şekilde katılımcıların gönüllülük esasına göre seçilmesi, araştırma sonuç raporunun müdürlüğümüzden izin alınmadan kamuoyuyla paylaşılmaması koşuluyla, okul idarelerinin denetim, gözetim ve sorumluluğunda ilgi (b) Bakanlık emri esasları dâhilinde uygulanması, sonuçtan Müdürlüğümüze rapor halinde (CD formatında) bilgi verilmesi kaydıyla Müdürlüğümüzce uygun görülmektedir.

Makamlarınızca da uygun görülmesi halinde olurlarınıza arz ederim.

Dr.Muammer YILDIZ
Millî Eğitim Müdürü

OLUR
25/03/2014

Yusuf Ziya KARACA EV
Vali a.
Vali Yardımcısı

Bu belge, 5070 sayılı Elektronik İmza Kanununun 5 inci maddesi gereğince güvenli elektronik imza ile imzalanmıştır. Evrak teyidi <http://evraksorgu.meb.gov.tr> adresinden 51ce-00cc-3e9a-8b02-143b kodu ile yapılabilir.

İ Millî Eğitim Müdürlüğü D/Blok Bab-1 Ali Cad. No:13 Cağaloğlu
E-Posta: sgb34@meb.gov.tr

A. BALTA VHKİ
Tel: (0 212) 455 04 00-239
Faks: (0 212)455 06 52

APPENDIX 8

Rough Translations of items of CACSS

PROBLEM SOLVING & POSITIVE FOCUS

I try to understand what causes the problem and generate a solution.

I consider about what I can do to change the situation.

I think over the problem to find what I can do.

I completely focus on the problem.

I make a plan and practice it to solve the problem.

I evaluate if I have sufficient resources to solve the problem.

I try different ways to solve the problem.

I try to learn skills that will help me on solving the problem.

I try to look at the problem from different aspects.

I try to solve the problem by breaking it into smaller pieces.

I examine what right things or mistakes I have done.

I try to change something to make things work better.

I try to remember solutions that has worked for me in the past and apply them.

I do some changes in my life or in my behaviors to prevent to happen the same thing again.

I try to understand the reasons not to experience the same thing again.

I give up looking for solutions.

I remind myself that “I have succeeded before and I can do it again.”

I say to myself that I can overcome these difficulties.

I do not give up and press the issue.

I try to relax myself by thinking of that it could be much worse.

I try to think of good things in my life.

I say to myself: “Be strong”.

AGGRESSION

I take it out on somebody else.

I shout at.

I tease people around me.

I pick a fight.

I look for a revenge.

I let out my anger by banging doors, kicking and beating something, and so on.

I blame others.

I grouch people around me.

I swear under my breath or loudly.

I argue with someone.

I start reacting to situations that I normally would not react

I harm to myself (e.g. biting, cutting, and injuring myself)

SEEKING SOCIAL SUPPORT

I share my feelings with others.

I share my problem with someone who can understand me.

I ask for help from my friend in order to solve my problem.

I talk with others to find a solution.

I try to be together with who has same problems.

I talk with people who have the same problem.

I take advice from different people.

I talk to people around me to learn what they would done if they were in the same situation.

I take somebody as a model who has overcome the similar problems.

I share my problems with one of my family members (my mother, father, sister or brother)

I easily express my feelings.

I ask for an advice in order to solve my problem from someone else than my family members.

I ask for an advice from my sister or brother.

RELIGIOUS COPING

I seek sanctuary in my religion.

I pray.

I praise.

I think of that there might people who are in worse situation than me and praise my situation.

I wish a miracle would happen that might make everything better.

SELF-BLAME

I think everything is my fault.
I blame myself because for what happened.
I get angry with myself.
I ruminate about if I had done something different.
I feel bad because I could not avoid this situation.
I cry.
I constantly ruminate about happenings.
I grouch to myself.

PLAY & HUMOR

I try to think funny things.
I make a joke of it.
I try to see funny side of the happening.
I am interested in funny things (comic films, videos, cartoons etc.)
I do jokes about the happening.
I play games.

SELF-ISOLATION

I go to a calm place and listen to myself.
I try to stay alone.
I go to my room.
I keep my feelings to myself.
I keep my problems to myself.

SEEKING PROFESSIONAL HELP

I apply for institutions / organizations that might help me.
I see a psychiatrist or psychologist.
I go to the doctor to get medicine.

POSITIVE REAPPRAISAL

I think that I learn something important from the experience

I take lessons from the happenings.

I think that it makes me feel 'older and wiser'

I think the positive things that I gain in this experience.

AVOIDANCE

I let it go the problems.

I try to avoid thinking of things that make me upset.

I try to forget what happened.

I try to stay away from those who remind me of my problems.

I try not to exaggerate the problem.

RISK TAKING

I smoke.

I drink alcohol to relax.

I spend money impulsively.

I put myself into dangerous situations without thinking the outcomes.

I hinder my responsibilities about the school (skipping classes, not doing homework etc.).