THE EFFECTS OF STRESS MANAGEMENT TRAINING PROGRAM ON PERCEIVED STRESS, SELF-EFFICACY AND COPING STYLES OF UNIVERSITY STUDENTS

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I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

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ABSTRACT

THE EFFECTS OF STRESS MANAGEMENT TRAINING PROGRAM ON PERCEIVED STRESS, SELF-EFFICACY AND COPING STYLES OF UNIVERSITY STUDENTS

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The purpose of this study was to investigate the effects of Stress Management Training Program on perceived stress, self-efficacy and coping styles of preparatory school students in Middle East Technical University. Pre-posttest experimental control group design was used to investigate the effectiveness of Stress Management Training Program.

Before the main study, reliability and validity studies of Perceived Stress Scale (PSS-10), College Adjustment Self-efficacy Scale (CASES) and Student Coping Instrument (SCOPE) were carried out with one hundred and forty one students.

Three hundred and sixty six students (154 females and 212 males) contributed the main study. Among them, sixteen students were randomly assigned in the experimental and control group. While the Stress Management Training Program was applied for experimental group, control group did not receive any treatment.
The program continued for six weeks, once a week for 90 minutes. The program included the effective and ineffective ways of coping with stress, emotions and thoughts that affect behaviors, relaxation training, problem solving and assertiveness training.

ANOVA, Mann-Whitney U and two-related samples Wilcoxon tests were used to analyze data. The results of analysis of variance showed a gender difference between males and females. Females had higher scores in perceived stress, socially related life events and emotion-focused coping. The results of Wilcoxon test showed a significant reduction between pre and post test scores of experimental group in perceived stress scores and the frequency of socially related life events. No difference was found for CASES and SCOPE.

At the end of the study, the findings were discussed and recommendations were presented.

Keywords: perceived stress, stress management, self-efficacy, coping style.
ÖZ

STRES YÖNETİMİ EĞİTİM PROGRAMININ ÜNİVERSİTE ÖĞRENCİLERİNİN ALGILADIKLARI STRES, KENDİNE YETERLİLİK VE BAŞAÇIKMA STİLLERİ ÜZERİNDEKİ ETKİSİ

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Bu çalışmanın amacı, Stres Yönetimi Eğitim Programının üniversite hazırlık sınıfı öğrencilerinin algılanan stres, kendine yeterlilik ve başa çıkma stilleri üzerindeki etkisini incelemektir.

Bu çalışmada, Stres Yönetimi Eğitim Programının etkisini incelemek için ön-test ve son-test kontrol grubu deneySEL araştırma deseni kullanılmıştır.

Ana çalışmaya başlamadan önce üç ölçeğin, Algılanan Stres Ölçeği (ASÖ-10), Üniversiteye Uyumda Kendine Yeterlilik Ölçeği (ÜUKYÖ) ve Öğrenci Başa Çıkma Ölçeği (ÖBÇÖ), geçerlilik ve güvenlilik çalışmaları 141 öğrencinin katıldığı bir pilot çalışma ile yapılmıştır.

Stres Yönetimi Eğitim Programı haftada bir 90 dakikalık oturumlar halinde altı hafta sürmüştür. Program ana hatlarıyla stresin tanınımını, etkili ve etkisiz başa çıkma yöntemlerinin neler olduğunu, duygusal ve düşünçelerimizin davranışlarını nasıl etkilediğini, çevreme egzersizlerini, problem çözme ve girişkenlik becerilerini içermektedir.

Tüm grupta ANOVA sonuçlarına göre kız öğrencilerin algıladıkları stres düzeyleri, sosyal içerikli yaşam olayları sıkılığı ve duygusal odaklı başa çıkma yöntemini kullanma sıkılığı açısından farklılık gösterdikleri bulunmuştur. Deney grubu ve kontrol grubunun araştırmanın başında ve sonunda farklılık gösterip göstermediklerine Mann-Whitney U testi ile bakılmıştır. Stres Yönetimi Eğitim Programının öğrencilerin algılanan stres, kendine yeterlilik ve başa çıkabilme stilleri üzerindeki etkisini değerlendirebilmek için Wilcoxon testi kullanılmıştır.

Wilcoxon testi analizinden elde edilen sonuçlar, deney grubuna katılan öğrencilerin algıladıkları stres düzeylerinin ve sosyal içerikli yaşam olayları sıkılığının ön ve son test puanları karşılaştırıldığında anlamlı düzeyde düştüğünü göstermiştir.

Çalışmanın sonunda elde edilen bulgular tartışılmış ve önerilerde bulunulmuştur.

Anahtar kelimeler: Algılanan stres, stres yönetimi, kendine yeterlilik, başa çıkabilme
TO MY FAMILY
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CHAPTER I

INTRODUCTION

1.1. Background to the Study

The transition from high school to university is a notably stressful period for many students. The majority of students who are about to enter university appear to approach this transition in their lives with feelings of joy and anticipation. They expect university life to offer them significant opportunities for personal, social and intellectual growth. Although many of these expectations are certainly realized, the positive affective tone that characterizes their pre-university expectations is often replaced by feelings that are more negative after the student enters to university. As with other major life events, it is also accompanied by multiple and significant changes and is by nature a stressful experience (Baker, 2004; Vlisides, Eddy, & Mozie, 1994).

First year students must learn not only to adjust to the new demands of adult independence, but they must also cope with an environment that is very different from the one they had experienced in their high school years (Abouserie, 1994). Individuals often move away from home for the first time during this period and cut off from family and friends who have provided significant social support in their lives. They must also perform many of the tasks, such as managing their finances or doing laundry, that were formerly performed by their parents (Rice, 1992). From a life-event stress perspective, embarking on a university career presents a unique and significant challenge that lead to stress and adjustment difficulties (Sarason, Johnson, & Siegel, 1978).

The life-event stress perspective was criticized for its assumption that any change is stressful, irrespective of whether it is regarded by the person as being positive or negative, or controllable or uncontrollable (Sarason, Johnson, & Siegel, 1978). Consequently, contemporary stress research emphasizes the importance of
psychological appraisal of potential stressful event, suggesting that the stress is not built-in to the life change, but depends to a large extent on the way that the person who experiences it perceives such changes (Lazarus & Folkman, 1984). Stress may be defined as the reaction of individuals to events that they perceive as endangering to their physical or psychological well being and which they are unsure that they are equipped to handle (Yoongs et al., 1999).

In the field of education, a moderate degree of stress is thought to be constructive, even to promote creativity. Two contributions of the construct of stress to psychosocial models of adaptation were identified as its ability to combine environmental and personal factors with the development of mental illness through the construct of vulnerability to stress, and the notion of goodness of fit namely that psychosocial adaptation is in part of a match between the demands of a situation and the capacities of an individual. However, for the majority, excessive stress results in impaired behavior and ineffective learning (Aldwin, 2000, p.13).

Therefore, assessment of stress levels in college students is a topic widely examined by the researchers. For example, Towbes and Cohen (1996) created the College Chronic Life Stress Survey in which they focused on the frequency of chronic stress in the lives of college students. Similar studies have examined sources of stress between undergraduate (Ross, Niebling, & Heckert, 1999) and graduate students (Rocha-Singh, 1994). Cahir and Morris (1991) found that college students may experience stress based on the occurrence of several variables, including; demands on time, perceived lack of support from faculty, financial pressure, competition, fear of failure and parental or interpersonal conflicts. As stress is present and continues, a student may become less confident in his/her abilities or fearful of his or her circumstances, thereby increasing the risk for suicidal behaviors.

Excessive stress in students often leads to problems such as academic failure, unemployment, health problems, underachievement and non-completion of course and suicidal behaviors (Millings-Monk & Mahmood, 1999). A stress vulnerability model was proposed suggesting that a person with emotional/social
alienation, cognitive distortions and underdeveloped adaptive ability when placed in a stressful situation would be more susceptible to suicidal ideation than someone with adequate coping and cognitive flexibility (Hirsh & Ellis, 1996). Most of the mental health problems identified are anxiety or depression. Not only are the human costs great, but also financial costs of these two problems are high (Hirsh & Ellis, 1996).

Population in a developmental transition is thought to be especially vulnerable to the occurrence and effects of stressful processes. There are at least four major developmental tasks that confront late adolescent college students: (a) achieving emotional independence from family, (b) choosing and preparing for a career (c) preparing for relationship commitment and family life, and (d) developing an ethical system (Cohen & Matthews, 1987).

In accordance with Cohen and Matthews (1987), Ainslie and Shafer (1997) in their study, identified five sources of individual differences in vulnerability to stress among children and adolescents (a) developmental factors, (b) gender-related factors, (c) the proximal nature of daily as opposed to major stressful events, (d) stress and symptoms in the lives of significant others, (e) individual differences in self-perceptions of competence and the importance of different domains of functioning.

During the transition to college, students commonly question their relationships, direction in life and self-worth. Tremendous inner turmoil may result from questions about identity and can sometimes lead to a personal crisis (Henton, Lamke, Murphy, & Haynes, 1980). Personal or emotional problems may be manifested as global psychological distress, somatic distress, anxiety, low self-esteem or depression (Grace, 1997). Depression is the primary observed psychiatric disorder among college students (Hudd, Dumlao, Erdmann-Sager, Murray, Phan, Soukas, & Yokozuka, 2000; Sherer, 1985). College students, regardless of year in school, often deal with pressures related to finding a job or a potential life partner (Dixon, Heppner, & Anderson, 1991).
In the context of stressful life transitions, general beliefs of efficacy may serve as a personal resource or vulnerability factor (Bandura, 1995). People with a high sense of perceived efficacy trust their own capabilities to master different types of environmental demands. They tend to interpret demands and problems more as challenges than as threats or subjectively uncontrollable events. High perceived efficacy enables individuals to face stressful demands with confidence, feel motivated by physiological arousal, and judge positive events as caused by effort and negative events as due primarily to external circumstances (Bandura, 1995).

A generalized belief in one’s efficacy serves as a resource factor that should buffer against distressing experiences fostering positive “eustress” perceptions instead. In contrast, individuals who are characterized by low perceived efficacy are prone to self-doubts, anxiety arousal, threat appraisals of events and perceptions of coping deficiencies when confronted with difficult situations and demands. Although self-efficacy is conceived of as a trait, it is changeable, especially in response to critical life events by young adults whose self-efficacy is not yet as elaborated and stabilized as in older persons (Bandura, 1995).

Besides the efficacy beliefs, the style of coping elicited by stressful events is also closely related to adaptation. Positive coping, characterized by an approach-oriented style and problem-focused efforts, is related to fewer emotional and behavioral disorders and also predicts positively to academic and personal/emotional adjustment; negative coping, including an avoiding style and emotion-focused coping, is related to higher levels of dysfunctional problems (Compas, 1987; Tao & Dong, 2000). Presumably, these copings are at least moderately stable across diverse stressful situations, and so, in the long term, they affect adaptational outcomes (Folkman, Lazarus, Gruen, & DeLongis, 1986).

Coping refers to the person's cognitive and behavioral efforts to manage (reduce, minimize, master or tolerate) the internal and external demands of the person-environment transaction that is appraised as taxing or exceeding the person's resources. There are three key features of this definition. It is process-oriented, contextual and no prior assumption can be made as what constitutes good or bad
coping (Folkman, Lazarus, Gruen, & DeLongis, 1986). Lazarus and Folkman’s (1984) model of coping posits that there are individual differences that mediate the appraisal process which also affects the coping strategies which in turn influences the adaptational outcomes. The adaptational outcome, which can be university adjustment, is the result of the coping effectiveness of the individuals.

Coping skills interventions are intended to provide participants with tools and skills to solve not only current problems but future ones as well (Brown, 1983). Since stress is an ever-present phenomenon of modern life, coping with stress has been shown to be an effective way to reduce health care costs. With increasing emphasis on prevention, stress reduction has been found to improve quality of life and adaptation to chronic illness, as well as to decrease dependence and overall use of health care systems (Smith, 1989; Stetson, 1997).

Most stress-management programs are based on multi-modal, cognitive-behavioral therapy. An example of an offered cognitive-behavioral model for adolescents stress and coping has five major components: environmental stressors (daily hassles and major life events), environmental moderators (support systems), personal factors (age, cognitive appraisal, etc.), stress outcomes (physical and psychological outcomes), and behavioral outcomes (drug abuse, pregnancy, etc.) (Auerbach, 1989). In general, stress management programs can incorporate three types of interventions. The client can be taught (a) skills that reduce or modify exposure to stressors (b) skills that reduce excessive physiological functioning, and/or (c) skills that will facilitate expression of the stress response in a healthy manner (Kantor & Schomer, 1997).

Stress management education with a psycho-educational approach is important for college students because of increased stress due to academic demands and an increased number of developmental challenges inherent in college life. An educational oriented framework was found to be helpful in integrating and interrelating information pertaining to stress management and was readily understood by college students. For example, Walker and Frazier (1993) conducted an experimental study and subjects in the treatment group was found to increase
their knowledge of stress and coping, attitude of self-efficacy in coping and self-reported frequency of coping behaviors.

The cognitive-behavioral model has been seen as being appropriate as it focuses on teaching skills and giving information and has been shown to be effective when used individually and with groups (Brown & Cochrane, 1999). In the literature, there are examples of stress management programs lasting from six to eight weeks (Deckro et al., 2002; Walker & Frazier, 1993).

Based on these findings, as the college years are thought to be the most stressful period in one's life; a cognitive-behavioral stress management program with an educationally oriented framework can be helpful for the students during that period and also for their future.

Thus, the aim of this study is to assess the effects of stress management training program on perceived stress, self-efficacy and coping styles of first year university students in Middle East Technical University (METU).

1.2. Statement of the problem

What is the effect of stress management training program on perceived stress, self-efficacy, and coping styles of university students?

1.3. Statement of the subproblems

1) Is there any effect of stress management training program on experimental group’s life events scores compared to control group?
2) Is there any effect of stress management training program on experimental group’s self-efficacy scores compared to control group?
3) Is there any effect of stress management training program on experimental group’s perceived stress levels compared to control group?
4) Is there any effect of stress management training program on experimental group’s coping styles compared to control group?
1.4. Definition of the terms

**Stress:** The relationship between the person and environment that is appraised by the person as taxing or exceeding his or her resources and as endangering well-being (Lazarus & Folkman, 1984, p.19).

**Coping:** The person's cognitive and behavioral efforts to manage (reduce, minimize, master or tolerate) the internal and external demands of the person - environment transaction that is appraised as taxing or exceeding the person's resources (Lazarus & Folkman, 1984, p.141).

**Self-efficacy:** The belief in one’s capabilities to organize and execute courses of action required to produce given attainments (Chemers et. al., 2001).

1.5. Significance of the study

As being the counselor, working at psychological counseling and guidance center, it is the observation of the researcher that students apply to the center for their psychological, academic, social and vocational problems. Among these students, Preparatory School students constitute a great percentage of the applicants. Therefore, a counseling unit was opened at the Preparatory School in METU for this group where they can easily and quickly are served. Especially, the students coming from different cities, have the most adjustment problems and their stress levels increase.

Stress management program increases the awareness of the students. They may become aware of how they are feeling, how they perform academically and socially. After that, with the help of group training, they may learn how they can solve their problems. They may understand how their way of thinking affects their behaviors and feelings. Also, in a group setting, they will see that they are not the only person having these problems or troubles. They might in a way form a new social support group for themselves.
A growing body of literature states that college years may be the most stressful in one's life. At the beginning of a new education life, if students develop, or improve their coping skills, the coming years may not be so troublesome for them. As the stress levels of the students decrease with the help of stress management program, their academic life will be much better. They may invest much more energy in their studies, as they may know how to deal with stress related problems after the group.

With this study, development of a stress management program might be helpful for the colleagues working with university students in various counseling centers. They can use stress management program with their students. This study might give way to other related stress studies.

Another significance of this study is the introduction of three new scales; College Adjustment Self-efficacy Scale, Perceived Stress Scale and Student Coping Instrument to Turkish Literature. Especially for coping instrument, recent research emphasizes the importance of the usage of domain specific instruments and SCOPE is a domain specific instrument developed from a well-known instrument COPE for university students. Measuring perception of stress becomes more important than the occurrence of stressful events in people’s life in contemporary stress research and Perceived Stress Scale helps researcher to collect data about people’s perceptions. Also, as stated before, in the context of stressful life transitions, general beliefs of efficacy may serve as a personal resource or vulnerability factor (Bandura, 1995). Efficacy beliefs affect every phase of personal change-such as the motivation and perseverance needed to succeed. College Adjustment Self-efficacy scale is a new domain specific scale adopted to measure the belief in skills necessary to complete one’s university career.
CHAPTER II

REVIEW OF LITERATURE

The transition from high school to college or university life itself produces many changes in an individual. Some of these include changes in residence, social relationships, additional financial burden, and career choices. All such changes involve demands on an individual for new behavioral and internal responses, including a new conception of the self and the place of the self in the physical and social world. Because of these demands, for adaptation to occur, some aspects of life changes are classified as stressful (Garg, 1992).

Time constraints, financial strain, academic workload, and interpersonal difficulties with faculty, peers, and significant others contribute to stress for college students. Evidence from past research shows that stress experienced by college students relates to outcomes such as anxiety, eating problems, depression and attrition (Ball & Lee, 2000; Nonis, Hudson, Logan, & Ford, 1998).

Stress has long been a major focus among researchers interested in environmental and psychosocial influences on health. The term “stress” is in such common usage that, at first glance its meaning seems straightforward in little need of definition. However, the way in which the term “stress” has been used in the literature has not been consistent.

2.1. The definition of Stress

Numerous definitions have been provided, varying in the extent to which they emphasize stressful events, responses, or individual appraisals of situations as the central characteristic of stress. Two broad distinctions can be made in the definition of stress. The environmental stress perspective focuses on the assessment of environmental events or experiences. Secondly, the biological model perspective focuses on activation of specific physiological systems that have been repeatedly
shown to be modulated by both psychologically and physically demanding conditions (Lazarus, 1993).

2.1.1. The Environmental Stress Perspective

Most evidence on the role of stressors in human disease has derived from interest in stressful life events. Historically, stress has been viewed as a noxious external stimuli impinging upon the organism. For millennia, it has been common knowledge that people could die from stressful events of lifestyles. External sources of stress may be either physical or sociocultural. Physical stressors include both trauma, which threatens immediate bodily harm (such as speeding cars, tornadoes or fire) and aversive environmental conditions, which may have subtler but nonetheless harmful effects, such as pollutants, noise and the like (Cohen, Kessler, & Gordon, 1997).

The structure of social roles may also provide opportunities for stress. Pearlin (1989) identified four types of chronic role strain. Role strain can consist of overload, as in having too much to do. Interpersonal conflict with roles (arguments with spouse, child, or co-worker) may be a role strain, as in interrole conflict. Role captivity (such as being unable to quit an onerous job due to financial obligations) may be particularly problematic, as is role restructuring (e.g., a daughter who becomes a caretaker for her parents). There are also ambient strains, like living in poor neighborhoods, and strains may arise from informal or elective roles (arguments with friends or fellow members of an organization). Not all role exits or restructuring may be stressful. Exits from roles that are very stressful may be very positive.

While psychologists often see events such as job loss or divorce as occurring randomly or perhaps arising from an individual’s psychological problems, sociologists are more likely to see the sources of life events as embedded in the social structure. Pearlin (1989) has argued that stress arises as a function of the distribution of social resources, as well as an individual’s status and roles. A lack of
social resources either increases the probability of a stressful life event or enhances its stressfulness once it occurs.

Interest in the role of life events in illness began with the work of Meyer in 1930s. Meyer advocated that physicians fill out a life chart as part of their medical examination of ill patients. Meyer believed that the life events elicited in this way could be shown to have etiologic importance for a variety of physical illnesses. An important advance in this area of research came in 1957 when Hawkins and his collaborators developed the Schedule of Recent Experiences in an effort to systematize Meyer’s life chart (Cohen, Kessler, & Gordon, 1997).

A great many researchers used this instrument over the next decade to document associations between stressful life events and heart disease, skin disease, and many others. In a subsequent modification of the Schedule of Recent Experiences, Social Readjustment Rating Scale, each event was assigned a standardized weight based on judges’ ratings of the degree of difficulty required to adjust to the event. These weights were called “life change units”. The summing of life change units associated with reported events allowed for a summary measure of environmental stressors (Holmes & Rahe, 1967).

Beginning in the 1970s, a new generation of stressful life event researchers began to challenge many of basic assumptions involved in the construction and scoring of the Social Readjustment Rating Scale. A subjective element was introduced into the Social Readjustment Rating Scale by having individuals estimate the stressfulness of their own experiences. This would give a way to generate measures that are more sensitive indicators of event stressfulness than judges’ ratings. The evaluation of how stressful an event might be is likely to be a good predictor of the actual effect of that event (Sarason, Johnson, & Siegel, 1978).

New concerns were also raised during this period that existing life event scales might not include an adequate and representative sample of the major events that occur in people’s lives. A minimum of a one-year reference period was found appropriate. It is long enough to obtain a reasonable estimate of variations in
exposure to recent life events and short enough to avoid the substantial decline in the ability of respondents to call events that appears to occur beyond the 1-year time frame. A more general recommendation, however, is that the appropriate time frame will necessarily depend on the nature of the outcome and the inherent causal lag of events for that outcome (Cohen, Kessler, & Gordan, 1997).

There are also critical differences between checklist and personal interview measures of life changes. The life change –readjustment paradigm assumes that positive as well as negative changes are related to the experience of emotional stress; interview methods, however, consistent with their focus on the most emotionally arousing stressors, are designed to elicit reports of negative events (Cohen, Kessler, & Gordan, 1997, p.39).

2.1.2. Biological Model Perspective

Stress represents a deviation from some norm or steady state. Bernard initially described the principle of homeostasis and its mechanisms were later elaborated further by Cannon (1939). He explains the body’s stress reaction in terms of the “fight or flight” response. In the fight or flight response a person experiences some set of stimuli from the world around him which automatically set off a series of complex physiological changes that prepare the body to fight or flee. A person quickly assesses the nature of the stimuli and acts to fight or flee if necessary. Even if no action is taken, the body remains in a state of maintained arousal for a period of time following the time it experiences the stimuli that set off the reaction in the first place. Over time, homeostasis is achieved. Homeostasis is the tendency of the body to return to the pre-stress physiological status (including breathing, heart-rate, etc.).

Later, in 1950s Selye described stress in terms of the General Adaptation Syndrome. According to Selye, organisms facing a stressor will immediately enter into an alarm state where a series of complex physiological changes take place, including such things as increased heart rate and breathing among myriad other symptoms. The second stage of the adaptation syndrome is resistance. During
resistance the organism remains aroused while the body works to defend against and adapt to the stimuli. Should the stressors continue unabated for an extended period of time, an organism will enter a third stage of the adaptation syndrome, called exhaustion. In the exhaustion phase, an organism suffers serious diminishment of resources and begins to experience a variety of impairments or effects of long term stress such as heart disease, hypertension (high blood pressure), and so on. If stress is left unchecked, the exhaustion phase is eventually followed by death of the organism (Selye, 1956).

The short-term impact of acute stress events and the potentially lethal effects of chronic stress was understood by Selye’s pioneering work in stress research. Selye also contributed three important terms to the study of stress: eustress, neustress, and distress. According to Selye, when human beings experience stress, it is distress, the negative impact of stress. But Selye also argued that not all stress is bad. He introduced the idea of eustress (or euphoric stress) to describe the elation and other positive effects people feel under moderate stress and the notion of neustress (or neutral stress) to describe stress that had neither a positive nor negative impact on humans (Rubenzer, 1988, Sime, 1997).

According to Lazarus (1993), whatever words are used to describe the stress process, four concepts must always be considered: First, a causal external or internal agent, which Hooke called a load and others called stress or a stressor, second, an evaluation (by a mind or a physiological system) that distinguishes what is threatening or noxious from what is benign; third, coping processes used by the mind (or body) to deal with stressful demands, and forth, a complex patterns of effects on mind and body, often referred to as the stress reaction.

As mentioned before, late adolescence in general and the transition from high school to university in particular, is a notably stressful time for many students. Considering the confusion that often accompanies the search for adult identity, certain types of events are more likely than others to be appraised as being stressful. These include events that are typically regarded as being negative, involve areas of
life that are central to the person’s identity, are unpredictable and uncontrollable. In their study, Lafrenier and Ledgerwood (1997) examined the impact of three factors thought to influence stress and adjustment to university life: place of residence of the student, gender and perceived social support from family. While entering university is usually seen as a positive event, it represents a transition that is likely to involve several stressful features. Compared to more structured environment of high school, university is likely to involve more ambiguous expectations and demands on students. A significant effect of gender on perceived stress; with females showing higher overall levels of stress than males was found in this study. When three-way interaction (place of residence x gender x perceived social support from family) was considered, it was significant. When perceived family support was high, participants tended to be fairly uniform in their adjustment to university, across both genders and either place of residence.

2.2. Stress and Self-efficacy

According to cognitive relational stress theory (Lazarus, 1991; Lazarus & Folkman, 1984), people’s psychological adaptation to new circumstances may be either facilitated or impeded depending on contextual factors. These factors include personal resources or vulnerabilities on the one hand and environmental resources or constraints on the other. In encounters with stressors, resources, vulnerabilities, and constraints influence stress appraisals, coping strategies and subjective well-being. Strong resources and weak constraints foster adaptive coping strategies that mediate better psychological and physical well-being than weak resources and severe constraints.

Personal experiments shape coping skills development and provide the client with further occasions to reconsider his or her expectations and beliefs as well as strengthen feelings of self-efficacy (Bandura, 1982; Bandura & Adams, 1977). The extent to which interindividual differences in stress appraisal, emotional states, and health can be predicted by general beliefs in personal efficacy. Self-efficacy is conceived of not as a domain-specific or situation specific cognition but as a trait like general sense of confidence in one’s own capabilities to master different types
of environmental demands. Self-efficacy is a contextual-related judgment of personal ability to organize and execute a course of action to attain designated levels of performance. Whereas self-concept is a more general self-assessment that includes other self-reactions (Bandura, 1986; Bandura, 1990).

Perceived self-efficacy has been shown to be an important determinant of health promoting behavior. There are two levels at which a sense of personal efficacy plays an influential role in human health. At the more basic level, people’s beliefs in their capability to cope with the stressors in their lives activate biological systems that mediate health and disease. The second level is concerned with the exercise of direct control over the modifiable behavioral aspects of health. It is not stressful life conditions but the perceived inability to manage them that produces the detrimental biological effects (Bandura, 1995).

Bandura (1977) specifies four information sources that people use in forming their sense of personal efficacy. The most important source is *performance experience*. Successes build a sense of self-efficacy; failures weaken it. Repeated early failures especially may have the most adverse effect if they cannot be discounted due to lack of effort or unfavorable circumstances. Failures are less detrimental if people have already developed a strong sense of efficacy through early frequent successes. Successes achieved in the face of adversities are particularly beneficial. A strong sense of efficacy acquired in one area of functioning may be transferred to other areas, thus creating a general sense of personal efficacy, vicarious experience, verbal persuasion and physical and emotional reactions.

Forming beliefs of personal efficacy is a complex process of self-appraisal, which entails selecting, weighting, and integrating information from multiple sources. Culture may play its influential role in this appraisal process. Culture may affect not only the type of information provided by the various sources, but also which information is selected and how it is weighed and integrated in people’s self-efficacy judgments. Strong self-efficacy beliefs lead to greater persistence in the face of difficulties, reduce fear of failure (Bandura, 1995). A strong sense of
personal efficacy seems to reduce the likelihood of negative appraisals of stressful life demands, and, as a consequence, it provides protection against emotional distress and health impairments (Trockel, Barnes, & Egget, 2000).

Bandura (1993) has posited that perceived self-efficacy encompasses more than beliefs that effort determines performance. Judgments of one’s knowledge, skills, strategies, and stress management also enter into the formation of efficacy beliefs. Efficacy beliefs have also been studied in relation to students’ persistence and academic success in pursuing a major in college. The overall findings of cross-sectional, longitudinal and experimental studies are quite consistent in showing that beliefs in personal efficacy enhance effort and persistence in academic activities. Because perceived self-efficacy fosters engagement in learning activities that promote the development of educational competencies, such beliefs affect level of achievement as well as motivation (Bandura, 1995; Pajares, 1996).

Both outcome expectancies and efficacy beliefs play influential roles in adoption of health behaviors in elimination of detrimental habits, and in the maintenance of change. In adopting a desired behavior, individuals first form an intention and then attempt to execute the action. Perceived self-efficacy represents the belief that one has the capability to change risky health behaviors by personal action (Strecher, DeVellis, Becker, & Rosenstock, 1986). Efficacy beliefs affect the intention to change risk behavior, the amount of effort expended to attain this goal and persistence to continue striving in spite of barriers and setbacks that may undermine motivation. Perceived self-efficacy has become a widely applied theoretical construct in models of addiction and relapse. These theories assume that success in coping with high-risk situations depends partly on people’s beliefs that they operate as active agents of their own actions and that they possess the necessary skills to reinstate control should a slip occur (Bandura, 1995).

Controllability is a key organizing principle regarding the nature of stress effect. It is not stressful life conditions per se but the perceived inability to manage them that produces the detrimental effects (Bandura, 1992b). Exposure to stressors without perceived efficacy to control them activates autonomic, catecholamine and
endogenous opioid systems. Most human stress is activated in the course of learning how to exercise control over environmental demands and while developing and expanding competencies. Stress activated in the process of acquiring coping efficacy may have very different physiological effects than stress experienced in aversive situations with no prospect of ever gaining any self-protective efficacy.

Efficacy beliefs affect every phase of personal change—whether people consider changing their health habits; whether they enlist the motivation and perseverance needed to succeed and how well they maintain the habit changes they have achieved. To build a sense of efficacy, people must develop skills on how to influence their own motivation and behavior. Preventive efforts are especially important because many of the patterns of behavior that can seriously compromise health typically begin in early adolescence. It is easier to prevent detrimental health habits than to try to change them after they have become deeply entrenched as part of a life-style (Jarusalem & Mittag, 1997).

Effective programs to promote healthy lifestyles must address the social nature of health behavior and equip youth with the means to exercise control over habits that jeopardize their health. This requires a multifaceted sociocognitive approach to the common determinants of interconnected health habits rather than piecemeal targeting of a specific behavior.

Self-efficacy theory has proposed that all forms of psychotherapy and behavioral change operate through a common mechanism: the alteration of the individual’s expectations of personal mastery and success. According to Bandura (1977) expectations of self-efficacy are the most powerful determinants of behavioral change because self-efficacy expectancies determine the initial decision to perform a behavior, the effort expended and persistence in the face of adversity. (Sherer et al., 1982).

The contribution of self-efficacy to educational achievement is based both on the increased use of specific cognitive activities and strategies and on the positive impact of efficacy beliefs on the broader, more general classes of
metacognitive skills and coping abilities. Self-efficacy acts on a broader level through the more effective use of metacognitive strategies, which involve planning and self-regulation-skills that become increasingly important as an individual progresses through educational levels to environments that are less ordered and constrained (e.g., college or university life). Self-efficacy has an impact on affect through its effects on attention and construal of environmental demands, by the choice of actions taken and through its effect on the ability to control and manage negative or potentially negative emotions (Chemers, Hu, & Garcia, 2001).

2.3. Stress and Coping

2.3.1. Cognitive Appraisal

Primary cognitive appraisal is an evaluation of a situation as to its meaning for personal well-being. Three kinds of primary appraisals can be distinguished (1) irrelevant, (2) benign-positive, and (3) stressful. When an encounter with the environment carries no implication for a person’s well-being, it falls within the category of irrelevant. Benign-positive appraisals occur if the outcome of an encounter is construed as positive that is if it preserves or enhances well-being or promises to do. Stress appraisals include harm/loss, threat and challenge. In harm/loss, some damage to the person has already been sustained, as in an incapacitating injury or illness, recognition of some damage to self-or social esteem, or loss of a loved or valued one. The most damaging life events are those in which central and extensive commitments are lost (Lazarus & Folkman, 1984).

Threat concerns harms and losses that have not yet taken place but are anticipated. Even when a harm/loss occurred, it is always fused with threat because every loss is also pregnant with negative implications for future. The third kind of stress appraisal, challenge, has much in common with threat in that it too calls for the mobilization of coping efforts. The main difference is that challenge appraisals focus on the potential for gain or growth inherent in an encounter and they are characterized by pleasurable emotions such as eagerness, excitement and
exhilaration, whereas threat centers on the potential harms and is characterized by negative emotions such as fear, anxiety and anger (Lazarus & Folkman, 1984).

Coping effectiveness is considered as the extent to which a stressful situation is altered or negatively toned emotions are managed. In a study, the researchers examined the person-related variable of values and goals, the cognitive stress appraisals of threat and challenge, coping effectiveness as a measure of secondary appraisal, perceived health as an adaptational outcome within a current stressful situation. The situation was participation in a cross-cultural learning experience in which an individual traveled alone to a host country outside of the U.S. Respondents appraised a typical study abroad experience as a challenge rather than a threat. The coping styles used most often were the optimistic, confrontive, supportive and self-reliant styles. A majority of respondents reported that their general health was very good to excellent before traveling. During and after the experience, participants also reported general health to be very good to excellent (Ryan & Twibell, 2000).

In current adjustment models, an individual’s appraisal of life events has been included as an important determinant in the stress-illness process. Cognitive appraisal is a key mediator in transactional models of stress. Need for information, familiarity and need to accept may be more indicative of secondary appraisal processes. Cognitive appraisals of life events were more important determinants of responses to stressors than were the frequency of life events and the types of coping behavior being used. It was the individual’s perception of the life event and not the event itself that had important implications (Gall & Evans, 1988).

2.3.2. Coping Strategies

Coping strategies are thought to consist of both cognitions and behaviors that are directed at managing a problem and its attendant negative emotions. In a transactional scheme, stressors arise because of a perceived shortfall of resources needed to deal with a problem, once the resources have been developed, the situation is no longer perceived as stressful-unless, of course, the situation somehow
becomes altered and the routines are no longer adequate (Livneh & Livneh, 1996; Printz, Shermis, & Webb, 1999).

College students confront many challenges in pursuit of their educational goals. When such experiences are perceived as negative, they can have an adverse effect on students’ motivation and performance. Moreover, if prolonged and perceived unmanageable, these experiences have been shown to elicit helplessness, and stress. The resources available to cope with stress and the manner in which individuals actually cope may be important factors influencing patterns of growth and development as opposed to the onset of a host of psychological and somatic problems (Compas, 1987; Compas et al., 1987).

Traditional approaches to coping had emphasized traits or styles—that are stable properties of personality. Coping, as defined by Lazarus and Folkman (1984), is a process that consists of “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” (p.141). According to Lazarus and Folkman, types of coping can be grouped into two categories, emotion-focused and problem-focused. Emotion-focused coping entails efforts to regulate emotional distress, including avoidance, while problem-focused forms of coping direct attention towards the problem and look for ways for solving it. The type of coping chosen depends partly on an individual’s appraisal of the situation’s amenability to change. When a person believes the situation cannot be altered, emotion-focused coping is most likely to be utilized, while a problem-solving strategy is the probable choice if the situation is viewed as changeable (Folkman & Lazarus, 1985). An individual’s response to a given event can be a critical component in determining the impact the event will have (Edwards & Holden, 2001; Endler & Parker, 1990).

Billings and Moos (1984) subdivided problem-focused coping into “information-seeking” coping which involved trying to find out more about the situation and obtaining guidance from social network members and “problem-solving” coping which involved taking specific actions to deal with a situation. Emotional focused coping was also subdivided into “affective regulation” coping,
which involved controlling stress related emotions by suppressing impulsive acts and improving morale by thinking positive thoughts or becoming involved in other socially accepted activities and “emotional discharge” coping, which involved discharging unpleasant emotions verbally and behaviorally to reduce tension in less socially acceptable ways.

Coping is a major factor in the relation between stressful events and adaptation outcomes such as depression, psychological symptoms and somatic illness. There are three key features of this definition. It is process oriented, contextual, and we make no priori assumption about what constitutes good or bad coping. A critical difference between the trait-oriented and the process oriented approaches is the significance given to the psychological and environmental context in which coping takes place. In the trait-oriented approach, it is assumed that coping is primarily a property of the person and variations in the stressful situation are of little importance. In contrast, the context is critical in the process-oriented approach because coping is assessed as a response to the psychological and environmental demands of specific stressful encounters (Aldwin, 2000).

An intraindividual approach to the problem in which each person’s coping processes were examined across a variety of stressful encounters (Folkman et al., 1986). The immediate outcome of an encounter refers to the person’s judgment of the extent to which the encounter was resolved successfully. The primary purpose of this study is to examine the functional relations between cognitive appraisal and coping processes and their short-term outcomes within stressful encounters. In changeable encounters, subjects used coping strategies that kept them focused on the situation: they confronted, did planful problem solving, accepted responsibility, and selectively attended to the positive aspects of the encounter. In contrast, when subjects appraised encounters as having to be accepted, they turned to distancing and escape-avoidance, which are forms of coping that allow the person not to focus on the troubling situation. Questions about causality are especially important for deciding how to intervene in maladaptive appraisal-coping-encounter outcome sequences (Folkman et al., 1986).
The essence of stress, coping and adaptation is change. Therefore, unless change is focused, it would be hard to learn how people come to manage stressful events and conditions. To be concerned with change is to be concerned with process as opposed to structure. Structure refers to stable factors such as personality traits or static features of the environment. The research to be reported is designed to elicit information about two stress-related sets of processes: emotion and coping, including the use of social support. The setting is a naturalistic stress situation—a college midterm examination, has three distinct stages. An anticipatory stage when the student must prepare for the exam under ambiguous conditions, a waiting and an outcome stage. Little attention is given to how anxiety or other emotions might increase and decrease throughout the examination or to the coping processes or to the changes in the environment that might mediate these changes. Individual differences in coping stability-variability may be an important factor in coping effectiveness, and in short- and long-term adaptational outcomes in stressful encounters (Folkman & Lazarus, 1985).

In one study, Carver, Scheier and Weintaub (1989) examined the relationship between coping style and situational coping in a sample of college students. Results indicated that compared to their typical stress response, a difference between students’ routine and situational ways of coping emerged. However, there were meaningful correlations found between subscales on the dispositional and situational COPE scale, indicating a degree of consistency between college students’ coping style and their situation-specific way of coping.

In their study Carver and Scheier (1994) focused on the three phases associated with college examination: anticipation, waiting, and outcome. Results indicated that coping with an academic stressor differed from one stage to another; however, dispositional coping did predict comparable situational coping.

In another study (Struthers, Perry, & Menec, 2000) the capacity of an academic specific measure of college students’ coping style to predict students’ academic motivation and performance was examined. A positive relationship between motivation and course grade was expected. Results confirmed that the
relationship between college students’ stress and course grade is qualified by their academic coping style and motivation. Greater academic stress is associated with greater problem-focused coping and emotion-focused coping. This study extends previous research by demonstrating that academic specific coping styles significantly predict college students’ management of stress at college. In addition, this research indicates that coping and motivation are related processes and should be considered within the same model.

A number of recent studies emphasized the need to investigate in more depth the role of major personality variables to successful psychosocial adjustment and general well-being. The personality variables/vulnerability factors, which have been of research interest recently including shyness, negative and positive affect and extraversion and neuroticism. It is suggested that negative and positive affectivity might play a very significant role in the psychosocial adjustment of students to university life (Mattlin, Wethington, & Kessler, 1990).

Moreover, achievement motivation is another personality variable, which although appearing relevant to overall psychosocial and academic adjustment to university has not been studied adequately. Recent research with students appears to suggest that coping strategies and styles as expressed in specific stressful situations are related both to overall adjustment and to health outcomes (Halamandaris & Power, 1999).

Early studies of stress considered life events and other external causes of a stress response. Later, Lazarus (1993) offered an alternative conceptualization. Variables such as hardiness, a sense of coherence and self-efficacy were identified and investigated. Coping responses were initially conceptualized as traits, that they reflect stable ways in which individuals are ‘good copers’ or ‘poor copers’. Later approaches identified coping transactions, which are ongoing sequences of events in which available coping resources and responses influence the individual’s appraisal of the stressor, coping response and subsequent appraisal (Folkman, 1984). Situational characteristics, particularly the controllability of the stressor, evoke differential coping responses.
Further research to assess the correlation of these self-reported frequencies with actual coping responses and more important with outcomes in problem solving is clearly needed. Although it will be useful in future research to consider control as a situation specific variable, it will also be necessary to distinguish between control over cause and control over outcome. Unfortunately, stress and coping researchers frequently fail to ask the person being studied this question: What was (is) your goal in selecting or in avoiding a coping response? This type of fine-grained analysis is needed (Altmaier, 1995).

Leong, Bonz, and Zachar (1997) in their study tested the hypothesis that students’ differential coping styles could impact their adjustment to college. The results indicated that academic adjustment and personal/emotional adjustment were related to coping strategies, while social adjustment and attachment/goal commitment were not related to coping strategies. Having the predictive ability to identify students with potential adjustment problems could help counselors more effectively serve a larger number of students.

Compas (1995) stated that using a range of coping strategies with diverse stress situations during adolescence period would provide a basis for tomorrow’s adults to gain effective coping strategies. Mahan and Shaughnessy (1999) also suggested that counseling services might provide stress management training programs, attendance of which should be mandatory for new students at university.

In another study (Lee & Larson, 1996) examined which coping strategies for dealing with examination stress contributed to lower rates of emotional and physical problems among Korean adolescents. Secondly, gender differences in Korean adolescents’ coping strategies were analyzed. Thirdly, they evaluated the effectiveness of coping with examination stress and finally, they examined whether the effectiveness of Korean adolescents’ coping with examination stress varied according to the severity of their additional life event stress.
The results of the study showed that Korean adolescents who experience life event stress in addition to their examination stress reported more psychological and physical symptoms. No gender difference was observed in the use of information-seeking coping to deal with both examination and no examination stress; however, difference was found in the frequency of emotional-discharge coping. The effectiveness of different coping strategies for Korean adolescents appeared to be similar to patterns found in research with Western adolescents dealing with stress. Problem solving and information seeking coping were related to less depression, whereas emotional-discharge coping was related to more physical symptoms (Lee & Larson, 1996).

2.4. Stress management

College students clearly experience stresses and could benefit from strategies to reduce it. If university personnel are to effectively promote the adjustment of students to an academic environment, they need to be aware of the type of stressors that are most common to college students and the effects of those stressors on outcomes such as academic performance and health (Nonis, Hudson, Logan, & Ford, 1998).

Given the changes and demands of college life, many students seek to improve their ability to manage stress effectively. Counseling centers typically offer programs designed to facilitate stress awareness and promote effective strategies of stress management. Stevens and Pfost (1984) outlines eight components of stress management that can be incorporated into individual or group format, stress information, relaxation training, cognitive restructuring, problem solving, time management, nutritional counseling and exercise planning. Assessment involves measuring overall stress and identifying indicators and sources of stress. Students are often unaware of the subtle manifestations of stress and underestimate the impact of stress on their physical and psychological well-being. Knowledge of the dimensions of the stress response can heighten awareness of stress as it is experienced and information about the long-term effects of excessive stress can
motivate students to acquire more effective stress management skills (Stevens & Pfost, 1984).

These preventive approaches usually involve an attempt to teach a variety of stress management techniques so that students can learn to manage stress before it builds to a crisis and causes psychological or physiological problems. The literature describes a number of different preventive approaches to stress management for college students. As with most preventive mental health programs, it is difficult to ascertain the effectiveness of these efforts. Most of the studies available are descriptive in nature with little controlled research demonstrating effectiveness (McWhirter, Okey, Roth, & Herlache, 1989).

Archer (1986) describes a stress management course and an evaluative research study. The course was held two hours per week, for 15 weeks, with an hour of lecture and an hour of small group discussion. The primary instructor or guest lecturers (nutritionist, physical education instructor, and graduate students) gave the lectures; graduate students in counseling or psychology led the small group discussions. Students in the stress management class had significant greater mean gain scores than the control class in four of the behavior rating areas; regular relaxation, situational relaxation, aerobic exercise, and positive self-statements. Students proclaimed loudly that time management section was misplaced (it was at the end of the course). By the time it was covered in class, they were under so much academic pressure that changes in time management approaches did not seem possible for many of them (Archer, 1986)

Stress management programs are being widely offered on college campuses today. These programs are partly based on the premise that maladaptive perceptions and reactions to stressful events can be changed. The effectiveness of stress management techniques has been reported for laboratory and clinical setting. Applied programs such as those widespread in the college setting have rarely been evaluated. Whether stress management groups effectively reduce stress on a long-term basis remains an unanswered question. Three separate groups run during a semester meeting once for 2 hours per week, for 3 weeks. The same stress counselor
conducted all three-stress management groups; the format of the Stress management programs involves a mixture of lecture, group discussion, activities, and training in several relaxation techniques. Lecture topics include defining stress and its relation to change and illness, universal guidelines for managing stress, rational thinking, time management, and the mind/body as a whole. The group stress-counseling program was not shown to be effective than passage of time in increasing an individual’s ability to cope with stress (Nicholson, Belcastro & Duncan, 1989; Morse & Walker, 1994).

Contrary to the popular belief that time-management behavior directly influences stress and stress-related outcomes such as performance, problem-solving ability, psychological and physiological health, empirical evidence suggests that it is linked instead through the perception of control over time (Macan, 1994). Only if time management behaviors provide a person with the perception that he or she has control over time will stress reduction or changes in stress-related outcomes result. While no study has directly tested the influence of perceived control over time as a coping strategy on outcomes such as physiological and psychological health, several studies have found coping strategies to positively influence physiological and psychological health outcomes. Students should be made aware that they couldn’t possibly manage their time until they have the knowledge and the experience of being in control of their time (Nonis, Hudson, Logan & Ford, 1998). Student counseling centers should emphasize the importance of both the perception of, and behavior relating to, time management when advising students.

A person who fails to cope with harmful stimuli might suffer from mental and physical exhaustion and certain diseases. Psychological stress is now recognized to be one of the important risk factors for upper respiratory tract infection (Reid, Mackinnoh, & Drummond, 2001). The incidence of colds and flue has been linked to dissatisfaction with life, a high degree of life change events, a decrease in desirable daily events and an increase in undesirable daily events. Reid, Mackinnoh and Drummond (2001) conducted a study to determine whether stress management techniques would decrease symptoms of upper respiratory tract infections (URTI) in university students during the examination period, a time
traditionally regarded as highly stressful. An eight-session treatment including stress awareness training, time management strategies, relaxation and guided imagery were given to experimental group and control group had no treatment. The results showed that the number of days with symptoms of URTI decreased in treated subjects during the examination period.

Even though coping can reduce stress, not all coping is successful, as success depends on the strategy used. For convenience, stress management programs may be categorized into five basic formats: progressive muscle relaxation, meditation, biofeedback, cognitive-behavioral skills training, and a combination of techniques. Cognitive-behavioral skill training helps a person to modify the appraisal processes that determine whether a specific stimulus is harmful and to develop behavioral skills for managing the stressor. A combination of these techniques may be applied during stress management interventions to achieve more effective reduction (Goldman & Wong, 1997; Gregson & Looker, 1994).

Another study examined the effects of a stress management program for college students of social work on their perception of mental stress and stress-coping strategies. Cognitive-behavioral therapy may change the cognitive appraisal that a stimulus is harmful. Participants in a stress management program may perceive their life events to be less stressful. No effect of gender was found, but limited number of males were attended the study. Cognitive skills may help highly anxious persons restructure their thinking patterns such that an event is perceived to be less harmful. The present program focused more on relaxation training than on modification of cognitive skills. Future studies of stress management interventions should measure emotional changes at pre- and post program (Hirokawa, Yagi, & Miyata, 2002).

The stimulus complex confronting the individual has rarely been conceptualized in terms of the nature of the coping demands it poses for that individual, and intervention strategies have often been formulated to match those demands. Problem and emotional focused coping mechanism are both useful under the appropriate circumstances in facilitating adjustment to stressors associated with
disease and health care (Humphrey et al., 1998; D’zurilla & Sheedy, 1991). There is general agreement that several types of intervention techniques (notably informational, modeling, cognitive-behavioral) have utility in promoting adaptation/recovery and/or minimizing negative outcomes. However, this conclusion is generally tempered by the admonition that these findings must be interpreted cautiously because of inadequate or insufficient use of control groups and/or confounding of treatment components in many studies, which prohibited isolation of essential components responsible for treatment effect.

In contrast to psychotherapy research, in stress management research the theoretical relevance of an intervention is closely tied to the nature of the particular stressor around which the intervention is oriented. It is likely that problem-focused coping and interventions geared at stimulating such coping processes will be most effective with stressors perceived as possibly being ameliorated by action. Mixed-focused intervention worked best. In sum, there is a need for studies that evaluate the efficacy of interventions selected on the basis of their likely impact on the coping skills and processes necessary to deal with stressors confronted by patients (Boutet, 1994).

Time and timing of intervention in relation to the onset of the stressor have received little attention from researchers. Few studies have evaluated the effects of interventions delivered after exposure to the stressor. The effectiveness of stress management interventions is determined by the extent to which they teach those coping skills and strategies that address the primary demands on coping resources posed by the stressor complex confronting the individual (Auerbach, 1989).

It is hypothesized that college students who attended a 6-week Relaxation response and Cognitive Behavioral Treatment intervention will demonstrate reductions in psychological distress, anxiety and the perception of stress. In addition the students would increase health-promoting behaviors, compared to those in a waitlist control group. Findings support the hypothesis (Deckro et al., 2002).
Problem solving skills include the ability to search for information, analyze situations for the purpose of identifying the problem in order to generate alternative course of action, weigh alternative courses of action with respect to desired or anticipated outcomes and select and implement an appropriate plan of action (MacNair & Elliot, 1992).

In their study, MacNair and Elliot (1992) examined the relation between self-perceived problem solving ability, cognitive appraisals of stressful events and coping strategies. According to transactional perspective, coping should be determined situationally and in congruence with the person-situation transaction. They predicted that the appraisal and coping process would be influenced by one’s problem-solving self-perception. The results showed that self-perceived effective problem-solving persons saw less threat, perceived more personal coping resources, and used more problem-focused coping and less-emotion-focused coping strategies than those perceiving their problem-solving skills as ineffective.

One aim of Cognitive Behavioral Treatment is to help individuals restructure their thoughts, which in turn should improve the way the person feels about a particular stressful situation (Hockemeyer & Smyth, 2002). Another aim of preventive and remedial psychological interventions is to increase the participants’ personal awareness. When a presenting issue is stress related, it is important that students gain increased awareness of their personal responses to the stressful situation (Palmer & Dryden, 1994).

Selye’s (1976) contributions made acute awareness of physiological changes that accompany stressful events. Because of these physiological reactions, it is important that mental health professionals help clients understand physical changes that may occur during stressful events. Therapists can explain the fight or flight response and the physiology of stress, including descriptions of sympathetic and parasympathetic nervous systems and hormonal changes that occur during a stress response (Romano, 2001).
2.5. Studies related with Stress and Coping in Turkey

In Turkey, stress and various psychological variables were investigated in different studies. The number of these studies was especially increased after the occurrence of specific events. For example, after the Marmara earthquake disaster in 1999 many studies were conducted related with post-traumatic stress, such as Gökler (2001) studied the predictor variables of post-traumatic symptoms in children and adolescents. Çoruhlu (2001) investigated the ways of coping with stress of primary school teachers who live in the earthquake area. Güneş (2001) examined the gender difference in distress levels, coping strategies, stress related growth and factors associated with psychological distress and perceived growth.

Another group of studies were about stress levels and coping strategies of caregivers, mostly mothers with disabled children either physically or mentally. Duygun (2001) compared the stress symptoms, coping styles and perceived social support effect on the burn out level of mentally handicapped and healthy children’s mothers. Tekinalp (2001) studied the effects of a coping skills training program on the coping skills, hopelessness and stress levels of mothers of children with autism. Also, Doğan (2001) evaluated the parents of hearing-impaired children in terms of some psychological variables.

The other group of study was about job stress and burn-out (Dervişoğlu, 2000) and various psychological variables of different group of subjects such as nurses (Eğrigözlu, 2002; Gündüz, 2000) army aviation and policemen (Eren, 2001).

Coping studies, which were mostly conducted with university students, were about different variables. For example, Dağ (1990) investigated the relationship among locus of control, coping strategies and psychopathology. For university students’ low but significant correlations were found between external locus of control and being symptomatic and between low learned resourcefulness and being symptomatic. In this study, locus of control and learned resourcefulness were also found as the significant predictors of being symptomatic. Other variables were
perceived control (Palancı, 2000; Oğul, 2000), and social support (İşikli, 1998). Kaymakçıoğlu (2001) examined the effects of perceived stress, perceived social support, locus of control belief, negative mood regulation expectancies and coping styles on depression and anxiety. Perceived stress was measured by life events scale. Negative mood regulation expectancies were found to be the best predictor of depression and anxiety symptoms.

There were also studies about coping skills. Tuğrul (1994) compared 18-24 years old children of alcoholic fathers with children of non-alcoholic fathers on the dimensions of ways of coping, self-esteem and adjustment. The results showed that the self-esteem and adjustment levels of children of alcoholics were lower than the children of non-alcoholic fathers and they use helpless approach and seeking refuge in fate as ways of coping. Şahin (1999) investigated the coping strategies of the senior students in terms of their departments, genders and levels of income. Students’ coping strategies differed in terms of their departments, as fine art students use self-confident and optimistic coping strategy and students in natural sciences use obeying and helplessness approach more.

In another study, coping strategies of Başkent University students on different variables were examined (Doğan, 1999). The results of the study showed that there was no difference among students who receive scholarship and who do not and also no difference were observed between first, second year and prep school students. Implication of the study stated that university counseling centers should provide individual or group counseling programs for stress management and effectiveness studies should also be carried out.

Tuna (2003) studied the differences in the effects of different coping strategies on different dimensions of university adjustment of first year students in Turkey and in the United States. Three instruments; Student Adaptation to College Questionnaire, Brief COPE and Demographic Sheet were used for the data gathering and equivalence studies were carried out. The results showed that there were cross-cultural differences in the effects of behavioral disengagement on social adjustment, goal commitment/institutional attachment and overall adjustment.
Differences were also found for the effects of religion and positive reframing on personal/emotional and overall adjustment. Finally, the effect of active coping was found to be significantly different on academic adjustment of first-year students from Turkey and the U.S.

Durmuş and Tezer (2001) conducted a study to investigate the relationship between the sense of humor and different coping strategies and the difference between male and female university students’ different coping strategies as a function of sense of humor. The results indicated that students with a high sense of humor seemed to prefer more optimistic and self-confident styles than those with a low sense of humor. The results concerning gender difference also revealed that females seemed to prefer helpless coping styles and males tended to use optimistic coping styles. Results revealed no significant sense of humor-gender interaction effect.

Akbağ (2000) examined the relationship between coping styles and negative automatic thoughts and ego states of university students. Survey method was used in this research (N = 1382). The results indicated that the level of negative automatic thoughts was positively correlated with “critical parent” and “adopted child” ego state scores but was negatively correlated with “nurturing parent”, “adult” and “free child” ego state scores. Students who were in adult ego state were found to have highest scores from the self-confident style. Students in adapted child ego state mostly preferred helpless and submissive styles.

Alkan (2004) examined the role of secondary appraisal of the event, cognitive appraisal of the situation, emotions experienced and coping styles used after a real life stressful event that university students experienced. The results of the study revealed that problem focused coping was predicted by positive emotions and cognitive appraisal of emotion. Emotion focused coping was predicted by negative emotions, stress level and secondary appraisal. The results also showed that cognitive appraisal of emotion was a moderator variable between positive emotions and problem focused coping.
In addition to these studies, Yöndem (2002) conducted a validity study for the scale originally named as Ways of Coping Checklist (Siva, 1991), which is widely administered in the world. In this study, some problems and concerns related to the subscales, the statement and coding of the items were determined. The goal of the study was to emphasize the importance of the selection of an appropriate scale for stress studies. Also, Türküm (2002) established a study for the development of a 5 point Likert scale of “Coping with stress based on Folkman and Lazarus model”. Data were collected from 498 undergraduate students. The results of reliability and validity analyses showed that there were three factors explaining 41.7 % of total variance of the scale, which was composed of 23 items. The internal consistency coefficient for the scale was found .78.

Finally, a special issue of Turkish Psychological Bulletin was published about “Stress” in 2004.
CHAPTER III

METHOD

In this chapter, the participants, the instruments, information about the translation, reliability and validity studies of the scales, analysis of data and the procedure were presented.

3.1. Participants

Three hundred and sixty six of students were in the main study (154 females, 212 males). Among them, sixteen students (9 females and 7 males) from the Middle East Technical University English Preparatory School voluntarily participated in the experimental study. A pre-post test experimental control group design was used in the study and students were randomly assigned to either experimental (n = 8; 5 females and 3 males) or control group (n = 8; 4 females and 4 males). The age of students varied from 18 to 22 with mean age of 19.62 (SD = 1.36).

3.2. Instruments

Four instruments, namely, Life Events Inventory for University Students, College Adjustment Self-efficacy Scale, Perceived Stress Scale, Student Coping Instrument, Demographic Sheet were also used in the present study.

3.2.1. Life Events Inventory for University Students (LEIU)

The inventory measures the frequency of specific hassles and life events experienced by students (e.g. not being able to adjust school, being alone, not being able to study enough). This inventory was originally developed by Oral (1999) as a 49-item 5 point Likert scale ranging from “1 = never” to “5 = always”. Higher
scores indicate higher frequencies of the life events experienced by individuals. Later, Dinç (2001) by adding additional items conducted factor analysis and found two factor solutions as factors being “achievement related life events” and “socially related life events”. Dinç excluded some items due to their factor loadings and 47 items were used in the calculation of LEIU total score. Two factors explained % 27.44 of the variance. The internal consistency of the inventory was .90 and for the achievement and social related life events were .88 and .86 respectively (Dinç, 2001) (see Appendix A, p.95 for sample questions).

3.2.2. The College Adjustment Self-efficacy Scale (CASES)

The College Adjustment Self-efficacy Scale measures the degree of confidence in the basic skills necessary to complete one’s college career (Hirose, Wada & Watanabe, 1999). Students were asked to “indicate the extent to which they would be confident in their ability to complete the given tasks successfully.” Responses were obtained on a 5 point Likert scale ranging from “strongly confident” (4) to a “not confident at all” (0). The sum of 21 item scores was used as the College Adjustment Self-efficacy score. Originally, three main factors were extracted as judgmental ability based on objective information, self-controlled persistence of activity, and self-adjustment in human relations (Hirose, Wada & Watanabe, 1999). Hirose, Wada and Watanabe (1999) found internal consistency as .88 for the whole scale and .81, .82 and .75 for the three factors respectively. The correlation between College Adjustment Self-efficacy Scale and Rosenberg Self-esteem Scale was found .54. This indicated that self-efficacy is related, to a certain extent, to a general sense of self-worth (Hirose, Wada & Watanabe, 1999) (see Appendix A, p.96).

3.2.3. The Perceived Stress Scale-10 item version (PSS-10)

The Perceived Stress Scale-10 item version (PSS-10), (Cohen, Kamarck, & Mermelstein, 1983) measures an individual’s appraisal of his or her life as stressful. Item examples include, “how often have you felt nervous or stressed?”, “how often have you felt confident about your ability to handle your personal problems?”
Respondents rated how often they experience these feelings in the last month on a 5 point Likert scale ranging from 0 = never to 4 = very often. PSS-10 scores were obtained by reversing the scores on the four positive items; items were 4, 5, 7, and 8 (Item 4: In the last month, how often have you felt confident about your ability to handle your personal problems?, Item 5: In the last month, how often have you felt that things were going your way?, Item 7: In the last month, how often have you been able to control irritations in your life? And Item 8: In the last month, how often have you felt that you were on top of things?). Total scores ranged from 0 to 40, with higher scores indicating greater overall distress. In the literature, researchers found internal consistencies changed between .75 and .86 (Cohen et al., 1983) (see Appendix A, p.97).

3.2.4. Student Coping Instrument (SCOPE)

Student Coping Instrument (Struthers, Perry, & Menec, 2000) consisted of 30 items assessing various thoughts, actions, and strategies associated with routine coping following poor academic performances were used to measure students’ coping style. The items were administered to students using the following instruction, “When I do poorly on an important test at university, typically…” Then students responded to items such as: “I think about how I might best handle the problem, I buy a study guide”. Responses to items are scored on a 10-point Likert scale ranging from (1) “extremely uncharacteristic” to (10) “extremely characteristic”.

Originally, two factors were mainly emerged as a result of factor analysis (Struthers, Perry & Menec, 2000). The first factor was labeled as problem focused coping consisted of 15 items and four subscales; general active coping, academic planning, active study coping, and efficacy. The second factor was labeled as emotional focused coping consisted of 15 items and four subscales, emotional venting, general emotional support, denial, and academic disengagement. The reliability of Student Coping Instrument was within acceptable limits, overall r = .80, for Problem Focused Coping r = .80, for Emotional Focused Coping r = .70. (see Appendix A, p.98).
Among these instruments Perceived Stress Scale, Student Coping Instrument, and College Adjustment Self-efficacy Scale have not been adapted to Turkish culture. For this purpose, reliability and validity studies were conducted and translation studies were carried out before the main study, and the results were presented in the following section.

3.2.5. Demographic Sheet

Demographic Sheet was developed for the purpose of gathering information related to gender, age and place of residence (classified as living in dormitories, living with parents, living alone, living with friends, relatives and other options). These information were used for the purpose of sample description (see Appendix A, p.94).

3.2.6. The Translation Studies of the College Adjustment Self-efficacy Scale, Perceived Stress Scale, and Student Coping Instrument

The translation of the scales into Turkish was done with a qualitative method (that is a translation and control of the questionnaire with a different group of translators after inquiry) (Savaşır, 1994). Three psychologists and two psychological counselors who had at least master degree and knew both languages well translated scales into Turkish independently. Later, an English language teacher selected the best translation among those five translations and also the authors compared the similarities and differences between the translations. Selection of items was also made based on the appropriateness of the language for the group of subjects.

A bilingual speaker of English language then back translated the Turkish version of the items to the original language. Additionally, a Turkish language teacher evaluated the final form and her suggestions were incorporated into the translation. Consequently, professionals working with university students also
reviewed the Turkish version of the scales. The results of reliability and validity studies were presented below.

3.3. Reliability and Validity Studies of the Turkish Version of The Scales

For the reliability and validity studies, convenience sampling (Shaughnessy & Zechmeister, 1997) was used. Subjects were 141 Middle East Technical University preparatory school students between the ages of 16-29 (mean age = 19, SD = 1.46), 45 of them were female and 96 of them were male from various departments.

3.3.1. Life Events Inventory for University Students (LEIU)

Factor analysis was performed in order to see the factor structure of Life Events Inventory for University Students. An initial principle component analysis revealed 15 factors with Eigen-values over 1. These factors totally explained 61.82% of variance.

Dinç (2001) obtained two factors as “achievement related life events” and “socially related life events”. Therefore, two-factor solution was applied and same factors were found in this study. The results were presented in Table 1.

Table 1. Factor Loadings, Communalities and Chronbach Alpha Reliabilities of Life Events Inventory for University Students

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The first factor explained 14.17 % and the second factor explained 11.40 % of the variance, with two factors totally explaining 25.57 % of the variance. The first factor included 27 items with factor loadings ranging from .26 to .67. The second factor contained 19 items with factor loadings ranging from .25 to .74. The items with loadings under .25 were excluded (items 2, 10, 12, 15, 21, 35, 41, 42). The alpha coefficient for the total inventory was .91. Alpha coefficients for the social and achievement related life events were .89 and .84 respectively.

3.3.2. College Adjustment Self-efficacy Scale (CASES)

For College Adjustment Self-efficacy Scale, factor analysis with a principle component analysis and varimax rotation was performed in this study. The results were presented in Table 2.

Table 2. Factor Loadings, Communalities and Chronbach Alpha Reliabilities of College Self-efficacy Scale

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As seen in Table 2, three factors were extracted in this study. Factor I labeled as “Judgmental ability based on objective information” (items 1-7), factor II labeled as “Self-controlled persistence of activities” (items 8-14) and factor III as “Self-adjustment in human relations” (items 15-21). Factor loadings of the factor I was changing between .68 (item 2) and .39 (item 6). For factor II it was between .72 (item 13) and .47 (item 12). For factor III, it was between .64 (item 17) and .32 (item16). Three factors accounted for 15.77 %, 12.11 % and 9.54 % respectively and in total, factors accounted for 37.42 % of the variance. The internal consistency of CASES was found as $\alpha = .84$ for the total and .81, .78 and .63 for the factors respectively.

For the validity study, the correlation with self-esteem was examined. The correlation between Rosenberg self-esteem and College Adjustment Self-efficacy Scale was found as .35. (p< 0.01).

3.3.3. Reliability and validity study of Perceived Stress Scale 10 item version

In this study, the Cronbach alpha coefficient for the Turkish version of PSS-10 was found as .84 and PSS-10 correlated .71 (p< 0.01) with the General Health Questionnaire. Factor loading of the items were changing between .54 (Item 5: In the last month, how often have you felt that things were going your way?) and .77
(Item 10: In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?). In general, the data indicated that the PSS-10 provides a reliable and valid measure of perceived stress for a Turkish sample. Principle component analysis revealed single factor and the factor explained 37.18 % of the variance.

Table 3. Factor Loadings and Communalities of Perceived Stress Scale

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3.3.4. Student Coping Instrument (SCOPE)

For SCOPE, first of all, item-total correlation was conducted, and items were having correlations smaller than .15 were excluded from analysis. These items were 9, 10, 19, 21, 22, 27, 28, 29, and 30. Then, the reliability of Scope was found within acceptable limits, overall $\alpha = .79$ and for PFC $\alpha = .75$ and for EFC $\alpha = .83$.

Secondly, factor analysis was performed in order to see the factor structure of SCOPE. An initial principal component analysis revealed “six” factors with eigen-values over 1. These factors totally explained 66.75 % of variance. Then, in parallel with the original scale, two-factor solution was applied and two factors were obtained. The results were presented in Table 4.
Table 4. Factor Loadings, Communalities and Chronbach Alpha Reliabilities of Student Coping Instrument

<table>
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<tr>
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</table>

Factor I labeled as “emotional focused coping” consisted of 9 items (Item 13, 16, 17, 18, 20, 23, 24, 25, 26) and factor II labeled as “problem-focused coping” consisted of 12 items (Item 1, 2, 3, 4, 5, 6, 7, 8, 12, 14, 15). The factor loadings for the first factor were changing between .95 (item 17 and 18) and .26 (item 13). For
the second factor, factor loadings were changing between .68 (item 3) and .26 (item 12).

The first and the second factors accounted for 18.77 % and 12.86 % of the variance respectively. In total, two factors accounted for 31.64 % of the variable variance. For the validity study, the correlation of emotional focused coping and problem-focused coping with General Health Questionnaire was examined. The correlation between emotional focused coping and General Health Questionnaire was -.21 (p < 0.05) and the correlation between problem-focused coping and General Health Questionnaire was .24 (p < 0.01).

3.4. Confirmatory Factor Analysis

The LISREL 8.30 program was used to perform confirmatory factor analysis for College Adjustment Self-efficacy Scale, Perceived Stress Scale and Student Coping Instrument. The fit of the models was evaluated using multiple criteria: the goodness of fit index (GFI), the adjusted goodness of fit index (AGFI), the root mean square error of approximation (RMSEA), root mean square residuals (RMR) and comparative fit index (CFI). The following criteria were used to indicate goodness of fit: GFI, AGFI and CFI greater than .85 and RMR and RMSEA greater than .05 and $\chi^2$/df ratio of less than 2.00 was proposed as a conservative indicator of an acceptable fit (Jöreskog & Sörbom, 1999b).

3.4.1. Confirmatory Factor Analysis for College Adjustment Self-efficacy Scale

As the scale originally consisted of three factor and three factors were also extracted in the explanatory factor analysis, three-factor model was evaluated for College Adjustment Self-efficacy Scale. Fit values of the three-factor model were presented in Table 5.
As shown in the Table 5, three-factor model was found to be significant based on the chi square statistical significance test. Factors were composed of 7 items and factor I was “judgmental ability based on objective information”, factor II was labeled as “self-controlled persistence of activities” and factor III was “self-adjustment in human relations”. Path diagram, standardized solution and t-values were presented in the Appendix B (p.99).

### 3.4.2. Confirmatory Factor Analysis for Perceived Stress Scale

One factor model (one factor to account for all items) was evaluated for Perceived Stress Scale. Fit values of the one factor model were presented in Table 6.

#### Table 6. Fit Values of One Factor Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Chi-square</th>
<th>df</th>
<th>RMSEA</th>
<th>RMR</th>
<th>GFI</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-factor</td>
<td>62.61</td>
<td>32</td>
<td>0.08</td>
<td>0.06</td>
<td>0.92</td>
<td>0.86</td>
<td>0.93</td>
</tr>
</tbody>
</table>

As shown in the table, one factor model was found to be significant based on the chi square statistical significance test. Path diagram, standardized solution and t-values were presented in the Appendix B (p.102).

### 3.4.3. Confirmatory Factor Analysis for Student Coping Inventory

As the scale originally consisted of two factor and two factors were also extracted in the explanatory factor analysis, two-factor model was evaluated for
Student Coping Inventory. Confirmatory factor analysis was conducted for the 21
item Turkish version of the scale. The analysis could not be conducted for 30-item
original version because of small sample size (N = 141). Fit values of the two-factor
model were presented in Table 7.

Table 7. Fit Values of Two-Factor Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Chi-square</th>
<th>df</th>
<th>RMSEA</th>
<th>RMR</th>
<th>GFI</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two-factor</td>
<td>605.48</td>
<td>181</td>
<td>0.08</td>
<td>0.08</td>
<td>0.86</td>
<td>0.82</td>
<td>0.86</td>
</tr>
</tbody>
</table>

As shown in the Table, two-factor model was found to be significant based
on the chi square statistical significance test. First factor was labeled as “emotion
focused coping” consisted of 9 items and factor II was “problem focused coping”
consisted of 12 items. Path diagram, standardized solution and t-values were
presented in the Appendix B (p.105).

Under the light of the explanatory and confirmatory factor analysis of the
present study, all three scales were found highly reliable and valid instruments.

3.5. Procedure

As a first step, permissions were obtained from the authors of the three
scales in order to use them for doing research. After that, reliability and validity
studies of three scales, Perceived Stress Scale (PSS), College Adjustment Self-
efficacy Scale (CASES) and Student Coping Instrument (SCOPE) were carried out.
Later, the director of Preparatory School arranged the volunteered classes and the
day of scale administrations. The researcher herself went to each class and gave
some information about the purpose of the research. Then she distributed all
instruments and at that time teachers were also in the classroom. Data were
collected from 141 students from eight classes. Within 25 minutes participants
completed the instruments.

A year after the reliability and validity studies, main study was conducted in
May 2004. Scales were distributed to 366 students to understand the preparatory
school students’ stress sources, perceived stress levels, self-efficacy and coping styles. Among them, 16 students were volunteered and they were randomly assigned to control and experimental group.

3.5.1. The Stress Management Training Program

The purpose of this study was to investigate the effects of Stress Management Training Program on perceived stress, self-efficacy and coping styles of preparatory school METU students. Based on the Stress Management Training Programs used in the literature (Decro et al., 2002; Kantor & Schomer, 1997; Nicholson, Belcastro, & Duncan, 1989; Walker & Frazier, 1993) a program was developed. Stress Management Training Program depends on cognitive-behavioral approach. It was a six-session program with 90-minute sessions every week. Each 90-minute training session consisted of the following: lecture, demonstration of new material, group discussion of weekly practice. The emphasis was on teaching a variety of cognitive-behavioral skills that each student could integrate into his or her life on a regular basis. They were encouraged to practice skills outside the sessions.

Session One

First, group members introduce themselves to each other. The researcher provided information about the program content, and time-schedule of the program. All participants have filled group attendance contract (see appendix C, p.108) before they came to the first session. In the first session, group members were asked to state their goals/reasons for attending this group and their expectations from the group.

Later, power point presentation was shown to the participants. Before the presentation, each participant was asked to give their own definitions of stress and how they feel and in which part of the body they notice the tension. Power point presentations included an outline of the presentation, definition of stress, stress reactions, physiological reactions to stress which can be noticed, and which cannot be noticed, immediate/useful and chronic/ damaging stress reactions, physiological reactions that take place, information gathering for managing stress (see appendix C for the slides, p.110). Handouts were provided to the students. At the end of the
session, they were asked to write their ways of coping in stressful situations as a homework assignment.

**Session Two**

First of all, homework assignments were checked and they were appreciated for completing their assignments. If any of the group members did not complete their homework, they were asked to do the assignment verbally. Then, their ways of coping were discussed in terms of their effectiveness; either they were found as effective or ineffective. After the distinction was made between effective and ineffective ways of coping, the role of nutrition and exercise in stress management was presented with power point. Then, relaxation technique as an effective way of managing stress was brought in. The researcher explained the physiology of stress, the fight or flight response that was mentioned in the previous session including descriptions of sympathetic and parasympathetic nervous systems and hormonal changes that occur during a stress response.

Then, progressive relaxation technique was taught to participants. At the end of the session homework sheet was given to the participants that they can practice this skill at home or where available. It was also emphasized that the more they practice the more they would see the benefit of this technique (See appendix D for the progressive relaxation homework assignment, Ost, 1987; p.121).

**Session Three**

At the beginning of the session, participants were asked how many times they have the chance to practice relaxation technique and how they felt. One or two group members stated that they did not have any time to practice. The importance of completion of homework assignment was reemphasized. This session was about cognitive restructuring. The slide show began with the presentation of some pictures as examples of perception, what we see is what we perceive (the things we see changes according to what we take as figure or ground, the famous vase example (see appendix C for slides, p.114).
Beginning with a visual perception example, how thoughts affect reactions were explained and the importance of appraisal was mentioned. Contemporary stress research emphasizes the importance of psychological appraisal of potential stressful event, suggesting that the stress is not built-in to the life change, but depends to a large extent on the way that the person who experiences them, perceives such changes (Lazarus & Folkman, 1984).

After that, the concept of irrational beliefs was presented to the participants and examples were provided (Şahin, 1994, p.117-126). During that time, participants were asked whether they had noticed similar beliefs or other things they say to themselves.

Automatic thought client form was distributed to participants at the end of the session with the photocopy of faulty thoughts list. They were asked to fill in the forms until the next session. Also a list of 20 questions was given to participants about how to defeat their faulty thoughts (see appendix D, p.123).

Session Four

First of all, participants were asked whether they had filled in the automatic thought client form and what they noticed about themselves. They mentioned about their increased awareness and how the thought list resembled them but only one of them thought about it and gave an example of an event how she noticed herself thinking negatively and then how she changed her perspective. Again the importance of homework assignments was emphasized, and then time management was presented. They were asked whether they have difficulty in managing their time, and the problems they face with. They all said that they do not have enough time to do the things that they want. Then a list of activity hours per week was given to them. With that list they noticed that they would still have extra hours even after spending time for leisure activities. They were also given weekly schedule form on which they can first identify then list their priorities, avoiding too much detail in their schedule. Some basic rules for making an effective study schedule were also mentioned.
Session Five

This session was about problem solving in which information and techniques were provided to help tackle the practical problems. The researcher translated a self-help workbook. The workbook has been adapted (with the author’s permission) from a larger book called “Overcoming Depression: A five areas approach” by Williams (2001).

First of all, each participant was asked to define what he or she sees as a problem. In a way, they formed a list of problems. The main aim of this session is not to eliminate problems in our life, rather how to tackle them one by one, not with all of them at the same time. Again, emphasis was made on the appraisal part of the difficulties that individuals face with in their life. Then, seven steps of problem solving were presented with examples to participants. Handouts were also distributed.

The first step is to identify and clearly define the problem as precisely as possible. Second step is brainstorming. It is important to step back from the problem and see the possible solutions. The more the solutions generated, the more likely it is that a good one will emerge. The third step is to write down and assess how effective and practical each potential solution was. Then as forth step is to choose one of the solutions. Next step is planning the steps needed to carry out. There were some questions that had to be asked about the planned solution, such as “is the planned solution realistic, practical, and achievable?” The sixth step is carrying out the plan and finally reviewing the outcome (see appendix C, p. 116).

These steps were presented on a case example and then, participants were asked whether they would like to share one of their problems. But, because of time limitation only one example could be discussed in details during the session. At the end of the session sheets about the definitions of seven steps of problem solving were given to participants. Therefore, they could write down their problems and if they would face any difficulty in any step that could be discussed in the next session.

Session Six

The final session was about assertiveness training. Before beginning with the definition of assertiveness, participants were asked about their problem solving trails. The participants brought nothing as a problem. Then, participants were asked
about their daily experiences where they wish they could be more assertive. Later, assertiveness was defined as being able to stand for them; making sure their opinions and feelings are considered and not letting other people always get their way.

Assertion as a skill that can be learnt was emphasized. Where assertion comes from was discussed. The elements and effects of passive, aggressive and assertive behaviors were defined. The rules of assertion and techniques that could be used for being assertive were presented. Among these techniques, broken record is rehearsing what is wanted to be said by repeating over and over again. Saying no, and scripting; planning out in advance in their mind or on paper exactly what they want to say in a structured way were two other techniques. These were also presented with case examples and handouts were distributed including the definition of terms and exercise sheet. In this session, participants found out about the difference between passive, aggressive and assertive behavior, learned about the rules of assertion and how they could put it into practice (see appendix C, p.119).

At the end of the session, the group was informed to meet 15 days later to fill in the questionnaires for post-test measurement.

3.6. Analysis of Data

In this study, non-parametric methods were used to analyze the data. A Mann-Whitney U Test was employed in order to compare the treatment group and the control group in terms of their pre and post test scores. Also, a Wilcoxon Test was conducted to examine the difference between the pre- and post-test scores of the subjects in the treatment and the control group. All the analyses were carried out by using Statistical Package for Social Sciences (SPSS) programs for Windows 9.0 software.

3.7. Limitations of the Study

There are some limitations in this study that may affect the interpretation and generalization of the study. First, the sample of this study was limited to METU preparatory school students. This might endanger the generalization of the findings. Secondly, follow-up studies could not be carried out because the students in both experimental and control group could not be reached out.
CHAPTER IV

RESULTS

In this chapter, findings of this study were presented. First of all, descriptive statistics of the main study and intercorrelation of study variables were presented. Then, analysis of variance for gender and Mann Whitney U test results was presented respectively. Later, descriptive statistics of the variables of the study, control group and experimental group were given. Finally, to display the effectiveness of stress management training program, the results of Wilcoxon tests were presented.

4.1. Descriptive Statistics of the Main Study

Three hundred and sixty six students were in the main study. One hundred and fifty four of them were females and two hundred and twelve of them were males. Among 366, sixteen students from the Preparatory school were voluntarily participated in the experimental part of the study and they were randomly assigned to either control or experimental group. Nine them were females and seven of them were males. The age of students varied between 18 and 22 with mean age of 19.62 (SD =1.36). Four of them would be studying at the faculty of arts and science, six of them would be the faculty of education student and six of them would be the faculty of engineering student. Four of them were staying with their families and twelve of them were staying at dormitories.

4.2. Descriptive Statistics for the total sample of the study

Means and standard deviations of the variables’ scores of Life Events Inventory for University Students, College Adjustment Self-efficacy Scale, Perceived Stress Scale and Student Coping Inventory were presented in Table 8.
Table 8. Descriptive Statistics of The Variables of The Study

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
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</thead>
<tbody>
<tr>
<td>LEIU Socially related life events</td>
<td>364</td>
<td>54.66</td>
<td>14.45</td>
</tr>
<tr>
<td>Achievement related life events</td>
<td>363</td>
<td>43.34</td>
<td>11.30</td>
</tr>
<tr>
<td>CASES Total score</td>
<td>364</td>
<td>62.82</td>
<td>11.20</td>
</tr>
<tr>
<td>Self-controlled persistence of activities</td>
<td>364</td>
<td>20.00</td>
<td>4.95</td>
</tr>
<tr>
<td>Judgmental ability based on objective info</td>
<td>366</td>
<td>22.44</td>
<td>5.08</td>
</tr>
<tr>
<td>Self-adjustment in human relations</td>
<td>366</td>
<td>20.36</td>
<td>5.10</td>
</tr>
<tr>
<td>PSS Perceived stress</td>
<td>364</td>
<td>18.34</td>
<td>6.77</td>
</tr>
<tr>
<td>SCOPE Problem Focused Coping</td>
<td>365</td>
<td>48.89</td>
<td>17.77</td>
</tr>
<tr>
<td>Emotion Focused Coping</td>
<td>364</td>
<td>79.30</td>
<td>19.07</td>
</tr>
</tbody>
</table>

As shown in the Table 8, for 366 students, the mean for socially related life events sub-score of Life Events Inventory was 54.66 with the standard deviation of 14.45. The mean for achievement related life events sub-score was 43.34 with standard deviation of 11.30.

For the “College Adjustment Self-efficacy Scale”, the mean for the total score was 62.82 with the standard deviation of 11.20. For “self-controlled persistence of activities”, the mean of the score was 20 with the standard deviation of 4.95. For “judgmental ability based on objective information”, the mean was 22.44 with the standard deviation of 5.08. For “self-adjustment in human relations”, the mean was 20.36 with the standard deviation of 5.10.

The mean of the Perceived Stress Scores was 18.34 with the standard deviation of 6.77.

For SCOPE, the mean for problem-focused coping was 48.89 with the standard deviation of 17.77 and the mean for the emotion-focused coping was 79.30 with the standard deviation of 19.07.

4.3 Correlation Matrix of the Study Variables

In order to examine the relationship between variables used in the study Pearson Correlation Coefficient was computed. The intercorrelation of variables was presented in Table 9.
Table 9. Correlation Matrix of The Study Variables

<table>
<thead>
<tr>
<th></th>
<th>PSS</th>
<th>LEIU Social Related life events</th>
<th>LEIU Achievement Related life events</th>
<th>CASES total</th>
<th>CASES Self-controlled</th>
<th>CASES Judgmental ability</th>
<th>CASES Self-adjustment</th>
<th>SCOPE Emotion</th>
<th>SCOPE Problem</th>
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<tbody>
<tr>
<td>PSS</td>
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<tr>
<td>Social Related life events</td>
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<td></td>
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<tr>
<td>Achievement Related life events</td>
<td>.47**</td>
<td>.60**</td>
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<td></td>
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</tr>
<tr>
<td>CASES total</td>
<td></td>
<td></td>
<td></td>
<td>- .30**</td>
<td>- .33**</td>
<td>- .24**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CASES Self-controlled</td>
<td></td>
<td></td>
<td></td>
<td>- .27**</td>
<td>- .27**</td>
<td>- .26**</td>
<td>.76**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CASES Judgmental ability</td>
<td></td>
<td></td>
<td></td>
<td>- .12*</td>
<td>- .20**</td>
<td>- .04</td>
<td>.56**</td>
<td>.27**</td>
<td></td>
</tr>
<tr>
<td>CASES Self-adjustment</td>
<td></td>
<td></td>
<td></td>
<td>- .13*</td>
<td>- .15**</td>
<td>- .06</td>
<td>.76**</td>
<td>.31**</td>
<td>.36**</td>
</tr>
<tr>
<td>SCOPE Emotion</td>
<td></td>
<td></td>
<td></td>
<td>.19**</td>
<td>.30**</td>
<td>.14**</td>
<td>.12*</td>
<td>.05</td>
<td>-.02</td>
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<tr>
<td>SCOPE Problem</td>
<td></td>
<td></td>
<td></td>
<td>-.29**</td>
<td>-.18**</td>
<td>-.21**</td>
<td>.41*</td>
<td>.37**</td>
<td>.14*</td>
</tr>
</tbody>
</table>

** p<.01  *p<.05
As can be seen from the Table 9, Life Events Inventory for university students subscales (social and achievement related life events) have significant correlations with each other. Moreover, these subscales have significant correlations with other study variables except for the achievement related life events, which do not have significant correlation with College Adjustment Self-efficacy Scale’s judgmental ability and self-adjustment subscales. College Adjustment Self-efficacy Scale’s subscales have significant correlations with each other. For the Self-controlled and Judgmental ability subscales, they do not have significant correlations with Student Coping Instrument’s emotion focused coping subscale. Perceived Stress Scale has significant correlation with all other study variables. For the Student Coping Instrument, the subscales have significant correlation with each other and other study variables.

4.4. Descriptive Statistics for Gender

One-way Analysis of Variance (ANOVA) was conducted to investigate whether life events, self-efficacy, perceived stress and coping styles of the students vary as a function of gender. The results were presented in Table 10 and 11.

Table 10. The Results for Gender Variable

<table>
<thead>
<tr>
<th>Variables of the study/Gender</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LEIU</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socially related life events</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>203</td>
<td>50.42</td>
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<tr>
<td>F</td>
<td>145</td>
<td>56.10</td>
<td>14.27</td>
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<tr>
<td>Achievement related life events</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>207</td>
<td>43.58</td>
<td>11.19</td>
</tr>
<tr>
<td>F</td>
<td>144</td>
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<td><strong>CASES</strong></td>
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<tr>
<td>M</td>
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<td>62.40</td>
<td>10.93</td>
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<tr>
<td>F</td>
<td>152</td>
<td>62.04</td>
<td>12.14</td>
</tr>
<tr>
<td>Self-controlled persistence of activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>211</td>
<td>20.14</td>
<td>4.85</td>
</tr>
<tr>
<td>F</td>
<td>152</td>
<td>20.01</td>
<td>5.84</td>
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<td>Judgmental ability based on objective info</td>
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<td></td>
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<tr>
<td>M</td>
<td>211</td>
<td>22.31</td>
<td>4.77</td>
</tr>
<tr>
<td>F</td>
<td>153</td>
<td>22.58</td>
<td>5.42</td>
</tr>
<tr>
<td>Self-adjustment in human relations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>211</td>
<td>20.32</td>
<td>5.41</td>
</tr>
<tr>
<td>F</td>
<td>154</td>
<td>20.42</td>
<td>4.66</td>
</tr>
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<td><strong>PSS</strong></td>
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</tr>
<tr>
<td>Perceived Stress Scale</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
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<td>17.55</td>
<td>6.58</td>
</tr>
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<td>F</td>
<td>148</td>
<td>19.31</td>
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<tr>
<td>Problem Focused Coping</td>
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<tr>
<td>M</td>
<td>210</td>
<td>79.38</td>
<td>19.13</td>
</tr>
<tr>
<td>F</td>
<td>150</td>
<td>79.60</td>
<td>18.03</td>
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<td>Emotion Focused Coping</td>
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<td></td>
</tr>
<tr>
<td>M</td>
<td>208</td>
<td>44.50</td>
<td>17.24</td>
</tr>
<tr>
<td>F</td>
<td>150</td>
<td>55.26</td>
<td>16.39</td>
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</table>
Table 11. Sources of Variance: The Gender of The Students (1,346)

<table>
<thead>
<tr>
<th>Variables of the study/Gender</th>
<th>SS</th>
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<th>F</th>
<th>Sig.</th>
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<td>2723.94</td>
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<td>31.84</td>
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<td>CASES Total score</td>
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<td>11.15</td>
<td>.08</td>
<td>.77</td>
</tr>
<tr>
<td>CASES Self-controlled persis. of activities</td>
<td>1.32</td>
<td>1.32</td>
<td>.04</td>
<td>.82</td>
</tr>
<tr>
<td>CASES Judgmental ability</td>
<td>6.41</td>
<td>6.41</td>
<td>.25</td>
<td>.61</td>
</tr>
<tr>
<td>CASES Self-adjustment in human relations</td>
<td>.91</td>
<td>.91</td>
<td>.03</td>
<td>.85</td>
</tr>
<tr>
<td>PSS Perceived Stress Scale</td>
<td>262.01</td>
<td>262.01</td>
<td>6.14</td>
<td>.01</td>
</tr>
<tr>
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<td>4.27</td>
<td>4.27</td>
<td>.01</td>
<td>.91</td>
</tr>
<tr>
<td>SCOPE Emotion Focused Coping</td>
<td>10084.58</td>
<td>10084.58</td>
<td>35.33</td>
<td>.00</td>
</tr>
</tbody>
</table>

In terms of social related life events subscale of Life Events Inventory for university students, a significant gender difference was found $F (1,346) = 14.33; p<.01$. Females ($M = 56.10$) reported the frequency of socially related life events more than males ($M = 50.42$). For Perceived Stress, $F (1,346) = 6.14$, $p < .01$, females reported higher perceived stress scores ($M = 19.31$) compared to males ($M = 17.55$). For Student Coping Instrument’s emotion focused coping, $F (1,346) = 35.33$, $p < .01$; females ($M = 55.26$) used emotion focused coping more than male students ($M = 44.50$). No significant gender difference was found for the other variables.

In the below section, descriptive statistics of the experimental and control group were presented.

4.5. Descriptive statistics of the pretest scores of experimental and control groups

Means and standard deviations of the variables of the study were displayed for the experimental and control group’s pretest scores in Table 12.
Table 12. Descriptive Statistics About Pretest Scores of The Variables of The Study for The Experimental and Control Group

<table>
<thead>
<tr>
<th>Variables of the study</th>
<th>Experiment (n = 8)</th>
<th>Control (n = 8)</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
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<td>Socially related life events</td>
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<td>15.27</td>
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<tr>
<td>Achievement related life events</td>
<td>53.87</td>
<td>12.56</td>
</tr>
<tr>
<td>CASES</td>
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<td></td>
</tr>
<tr>
<td>Total score</td>
<td>51.62</td>
<td>10.92</td>
</tr>
<tr>
<td>Self-controlled persistence of activities</td>
<td>14.75</td>
<td>5.62</td>
</tr>
<tr>
<td>Judgmental ability based on objective info</td>
<td>17.37</td>
<td>5.82</td>
</tr>
<tr>
<td>Self-adjustment in human relations</td>
<td>19.50</td>
<td>4.40</td>
</tr>
<tr>
<td>PSS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Stress Scale</td>
<td>22.25</td>
<td>3.65</td>
</tr>
<tr>
<td>SCOPE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem Focused Coping</td>
<td>50.62</td>
<td>8.60</td>
</tr>
<tr>
<td>Emotion Focused Coping</td>
<td>65.87</td>
<td>25.68</td>
</tr>
</tbody>
</table>

The mean of the socially related life events, life factor I score was 64.37 with the standard deviation of 15.27 for the pre-test measures of the experimental group. For the control group, the mean was 58.62 with the standard deviation of 9.66. For the achievement related life events, the mean was 53.87 with the standard deviation of 12.56 for the experimental group. For the control group, the mean was 49.75 with the standard deviation of 10.68.

For the College Adjustment Self-efficacy scale, the mean for the total score was 51.62 with the standard deviation of 10.92 for the experimental group and for the control group; the mean was 54.62 with the standard deviation of 16.93. For self-controlled persistence of activities, the mean of the score was 14.75 with the standard deviation of 5.62 for the experimental group. For the control group, the mean was 16.25 with the standard deviation of 7.08. For judgmental ability based on objective information, the mean was 17.37 with the standard deviation of 5.82. For the control group, the mean was 19.62 with the standard deviation of 6.34. For self-adjustment in human relations, the mean was 19.50 with the standard deviation of 4.40 for the experimental group. For the control group, the mean was 18.75 with
the standard deviation of 4.71.

The mean of the perceived stress scores was 22.25 with the standard deviation of 3.65. For the control group, the mean was 21.70 with the standard deviation of 8.89.

For student coping inventory’s problem focused coping, the mean was 50.62 with the standard deviation of 8.60 for the experimental group and for the control group, the mean was 44.37 with the standard deviation of 15.84. For the emotional focused coping, the mean was 65.87 with the standard deviation of 25.68. For the control group, the mean was 55.87 with the standard deviation of 16.95.

4.6. The difference between pre-test scores

In order to evaluate the question of whether there was a difference between the scores of the experimental and the control group before and after the treatment, Mann-Whitney U test was conducted. The mean ranks of the experimental and control group on pre-test scores were presented in Table 13.
Table 13. The Mean Ranks of The Experimental and Control Group Subjects On The Pretest Scores of The Study Variables.

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th>N</th>
<th>Mean Rank</th>
<th>z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socially related life</td>
<td>Control</td>
<td>8</td>
<td>7.25</td>
<td>-1.05</td>
<td>.32</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>8</td>
<td>9.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement related life</td>
<td>Control</td>
<td>8</td>
<td>7.44</td>
<td>-0.89</td>
<td>.38</td>
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<tr>
<td></td>
<td>Experimental</td>
<td>8</td>
<td>9.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CASES</td>
<td>Control</td>
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<td>8.94</td>
<td>-0.36</td>
<td>.72</td>
</tr>
<tr>
<td>total score</td>
<td>Experimental</td>
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<td>8.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CASES</td>
<td>Control</td>
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<td>9.06</td>
<td>-0.47</td>
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<tr>
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<td>7.94</td>
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<td></td>
</tr>
<tr>
<td>Persistence of activities</td>
<td>Total</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CASES Judgmental</td>
<td>Control</td>
<td>8</td>
<td>9.19</td>
<td>-0.58</td>
<td>.57</td>
</tr>
<tr>
<td>Ability based on</td>
<td>Experimental</td>
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<td>7.81</td>
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<td></td>
</tr>
<tr>
<td>objective information</td>
<td>Total</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CASES self-adjustment</td>
<td>Control</td>
<td>8</td>
<td>8.13</td>
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<td>.79</td>
</tr>
<tr>
<td>in human relations</td>
<td>Experimental</td>
<td>8</td>
<td>8.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSS</td>
<td>Control</td>
<td>8</td>
<td>8.69</td>
<td>-0.15</td>
<td>.87</td>
</tr>
<tr>
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<td>8</td>
<td>8.31</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCOPE</td>
<td>Control</td>
<td>8</td>
<td>6.94</td>
<td>-1.31</td>
<td>.19</td>
</tr>
<tr>
<td>Problem focused coping</td>
<td>Experimental</td>
<td>8</td>
<td>10.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCOPE</td>
<td>Control</td>
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<td>7.63</td>
<td>-0.73</td>
<td>.50</td>
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<tr>
<td>Emotion focused coping</td>
<td>Experimental</td>
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<td>9.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As Table 13 showed that the results of the Mann-Whitney U test performed for pre test scores were non-significant for all the test scores. For socially related life events, \( z = -1.05, p = .32 \), for achievement related life events, \( z = -.89, p = .38 \), for CASES total, \( z = -.36, p = .72 \), for self-controlled persistence of activities, \( z = -.47, p = .64 \), for judgmental ability based on objective information, \( z = -.58, p = .57 \), for self-adjustment in human relations, \( z = -.31, p = .79 \), for perceived stress, \( z = -.15, p = .87 \), for student coping instrument’s problem focused coping factor, \( z = -1.31, p = .19 \) and for emotion focused coping, \( z = -.73, p = .50 \).

4.7. Descriptive statistics of the posttest scores of experimental and control groups.

Means and standard deviations of the variables of the study were displayed for the experimental and control group’s post test scores in Table 14.

Table 14. Descriptive Statistics About Post Test Scores of The Variables of The Study for The Experimental and Control Group

<table>
<thead>
<tr>
<th>Variables of the study</th>
<th>Experiment (n = 8)</th>
<th>Control (n = 8)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
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</tr>
<tr>
<td>Socially related life events</td>
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<td>12.89</td>
</tr>
<tr>
<td>Achievement related life events</td>
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<td>12.96</td>
</tr>
<tr>
<td>CASES</td>
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<td></td>
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<tr>
<td>Total score</td>
<td>54.62</td>
<td>6.30</td>
</tr>
<tr>
<td>Self-controlled persistence of activities</td>
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<td>4.34</td>
</tr>
<tr>
<td>Judgmental ability based on objective info</td>
<td>18.25</td>
<td>4.68</td>
</tr>
<tr>
<td>Self-adjustment in human relations</td>
<td>18.75</td>
<td>4.71</td>
</tr>
<tr>
<td>PSS</td>
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<td></td>
</tr>
<tr>
<td>Perceived Stress Scale</td>
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<td>5.33</td>
</tr>
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<td></td>
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<td>Problem Focused Coping</td>
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<td>7.25</td>
</tr>
<tr>
<td>Emotion Focused Coping</td>
<td>76.50</td>
<td>17.15</td>
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</tbody>
</table>

The mean of the socially related life events score was 57.25 with the
standard deviation of 12.89 for the experimental group. For the control group, the mean was 58.25 with the standard deviation of 13.37. For the achievement related life events, the mean was 48.37 with the standard deviation of 12.96 for the experimental group. For the control group, the mean was 49.87 with the standard deviation of 9.52.

For the College Adjustment Self-efficacy scale, the mean for the total score was 54.62 with the standard deviation of 6.30 for experimental group and for the control group; the mean was 53.37 with the standard deviation of 14.49. For self-controlled persistence of activities, the mean of the score was 16.62 with the standard deviation of 4.34 for the experimental group. For the control group, the mean was 17.12 with the standard deviation of 6.87. For judgmental ability based on objective information, the mean was 18.25 with the standard deviation of 4.68 for the experimental group. For the control group, the mean was 19.25 with the standard deviation of 6.20. For self-adjustment in human relations, the mean was 18.75 with the standard deviation of 4.71. For the control group, the mean was 17.00 with the standard deviation of 4.84.

The mean of the perceived stress scores was 17.75 with the standard deviation of 5.33 for the experimental group. For the control group, the mean was 22.00 with the standard deviation of 8.05.

For student coping inventory’s problem focused coping, the mean was 52.12 with the standard deviation of 7.25 for the experimental group. For the control group; the mean was 49.50 with the standard deviation of 11.72. For the emotional focused coping, the mean was 76.50 with the standard deviation of 16.95. For the control group, the mean was 65.12 with the standard deviation of 18.53.

4.8. The difference between post-test scores

The mean ranks of the experimental and control group on post-test scores were presented in Table 15.
Table 15. The Mean Ranks of The Experimental and Control Group Subjects On The Post Test Scores of The Study Variables.

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th>N</th>
<th>Mean Rank</th>
<th>z</th>
<th>p</th>
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<td>7.88</td>
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<td></td>
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<td>8.69</td>
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<td>objective information</td>
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</tr>
<tr>
<td>PSS</td>
<td>Control</td>
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<td>6.94</td>
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<td>Total</td>
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<td>Control</td>
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<td>8.06</td>
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</tbody>
</table>
As Table 15 shows, the results of the Mann-Whitney U test performed for posttest scores of the study variables were non-significant for all the test scores. For socially related life events, \( z = -0.94, p = 0.38 \), for achievement related life events, \( z = -0.52, p = 0.64 \), for CASES total, \( z = -0.68, p = 0.50 \), for self-controlled persistence of activities, \( z = -0.10, p = 0.95 \), for judgmental ability based on objective information, \( z = -0.15, p = 0.87 \), for self-adjustment in human relations, \( z = -1.21, p = 0.23 \), for perceived stress, \( z = -1.31, p = 0.19 \), for student coping instrument’s problem focused coping factor, \( z = -0.36, p = 0.72 \) and for emotion focused coping \( z = -1.15, p = 0.27 \).

4.9. The effectiveness of Stress Management Training Program

In order to evaluate the effectiveness of stress management training program, nonparametric procedure, two-related samples Wilcoxon tests were used as the distributional assumptions associated with parametric test could not be met and also the sample size was too small to apply parametric procedures. The Wilcoxon tests evaluated the differences between paired scores, either repeated or matched. This study was a repeated-measure design with an intervention.

4.9.1. The effectiveness of Stress Management Training on Life Events

For social related life events, a significant difference was found for the experimental group \( z = -1.97, p = 0.05 \) on their pre and posttest scores. No difference was found for the control group \( z = -0.42, p = 0.67 \). For achievement related life events, no difference was found for the experimental group \( z = -1.54, p = 0.12 \) and the control group \( z = -0.35, p = 0.72 \).

4.9.2. The effectiveness of Stress Management Training on College Adjustment Self-efficacy

For college adjustment self-efficacy scale, for the total score, no difference was found [experimental \( z = -0.95, p = 0.34 \) and control \( z = -0.42, p = 0.67 \)]. For self-controlled persistence of activities, no difference was found for the experimental group \( z = -1.45, p = 0.15 \) and the control group \( z = -0.64, p = 0.52 \) on their pre and
posttest scores. No difference was found for the experimental group $z = -1.09$, $p = .27$ and the control group $z = -.00$, $p = 1.00$ on their pre and posttest scores for judgmental ability based on objective information. Also, no difference was found for the experimental group $z = -.51$, $p = .61$ and the control group $z = -1.21$, $p = .22$ on their pre and posttest scores for self-adjustment in human relations.

4.9.3. The effectiveness of Stress management Training on Perceived Stress

For the perceived stress scale a significant difference was found for the experimental group $z =-2.52$, $p = .01$ on their pre and posttest scores, no difference was found for the control group $z =-.07$, $p = .94$.

4.9.4. The effectiveness of Stress Management Training on Student Coping

For student coping scale, for problem focused coping, no difference was found for both the experimental group $z = -1.33$, $p = .18$ and the control $z = -1.61$, $p = .11$ on their pre and posttest scores. For emotional focused coping, no difference was found for the experimental group $z = -.08$, $p = .93$ and the control $z = -1.26$, $p = .20$ and on their pre and posttest scores.

As a result of the evaluation of the effectiveness of stress management training program, the training was mostly effective on the socially related life events and perceived stress levels of the students. A reduction was observed in the reported frequency of socially related life events and perceived levels of stress.
CHAPTER V

DISCUSSION, IMPLICATION, RECOMMENDATION AND CONCLUSION

This chapter consists of discussion, and the implication of the present research. Conclusion and recommendations for future research will also be presented.

5.1. Discussion of the findings

The main purpose of this study was to investigate the effect of stress management training program on different variables of first year Middle East Technical University students. These variables were perceived stress, self-efficacy and coping styles of the students.

A pre-post test experimental control group design was used. A six-session group program was applied to the experimental group and no treatment was given to control group and two-related samples Wilcoxon test was used to analyze data. The result of the analysis showed a significant difference between the posttest scores of the experimental and control groups for the students’ perceived stress levels, and frequency of socially related life events that they reported. This means that the subjects in the experimental group who took the six week treatment have an improvement on these variables compared to the control group. In other words, the Stress Management Training Program made a reduction on perceived stress levels and frequency of socially related life events in the experimental group.

The findings of the study showed a significant change/decrease on perceived stress scores of the experimental group. This study used cognitive style perspective (Folkman & Lazarus, 1985) and the effect of Stress Management Training Program was mostly observed on the experimental group’s perceived stress levels. Especially
session three, which was related to how thoughts affect behaviors, emotions and also information about the effects of negative automatic thoughts (for example; black or white thinking, all or non thinking, catastrophing) might have an impact on the modification that the students made on their perceptions. The things that are done to deal with external demands or stressors are intricately linked to the ways that they are appraised or perceived. The most obvious case is that where the event is perceived as controllable, behaviors will be directed for controlling it. The session that problem-solving skills were thought might also be useful for increasing the perception of controllability of the events.

Similar to the above findings, Caballo and Cardena (1997) conducted a study to assess perceived levels of stress experienced by college students, to detect the primary sources of perceived stress, to find out the activities students routinely participate in to reduce stress and finally to find out how effectively these preferred activities reduce perceived stress. Results showed that the main stressors that these students experience had to do with academic life such as many responsibilities, time and money management difficulties, concerns over grades. Students of this survey use social activities, watching television, and leisure activities more than other methods of managing stress and these activities was not found to effective in managing stress. Women reported higher level of stress although at the same time they did not report higher scores on the hassles scale.

In parallel with the Caballo and Cardena (1997) related to gender difference in the present study (N = 366), females were found to perceive stress more, had a higher score from life events inventory for socially related life events and used emotional focused coping more than male students. Similarly, Newcomb, Huba and Bentler (1986) found that females tended to perceive stressful events more extremely, either positively or negatively, than did males. It was concluded that gender influences the appraisal process of stressful events in ways that are consistent with the differing socialization patterns of males and females. Mirowsky and Ross (1995) in their study also found that women self-reported more psychological distress as measured by perceived stress, current anxiety and a number of everyday problems than men.
The gender difference could also be seen even at younger ages. In a study of children aged 8 through 12, Ryan (1989) discovered that even at this young age, girls named significantly more social support and emotional coping behaviors, whereas boys named significantly more physical exercise activities as potential coping strategies. Copeland and Hess (1995) found that young male and female adolescence significantly differed in their reported choices of coping strategies as measured by Adolescent Coping Orientation for Problem Experiences. Females reported using coping strategies including proactive orientation, catharsis, positive imagery, and self-reliance more often than did males. Based on their self-report, males were more likely to use avoiding problems, physical diversions and passive diversions.

Another finding of the present study was related to Life Events Inventory for University Students, the scores of the experimental group showed a significant decrease in their reported frequency of social life events after the Stress Management Training Program. This might be as a result of perception change, such as to perceive social life events as less threatening and more controllable after the skills they were taught in the group such as assertiveness training. Researchers tend to argue that controllability, predictability, threat and loss are common stressors. In fact, it is often the case that the distinction between presence and absence of stress rests on the perception of threat. Events that are stressful seen as threat while those that are not stressful are seen as challenges. The central aspect in the whole process is seen as control. Events that are threatening or involve loss also tend to remove our ability to control. Events that are unpredictable are difficult to control (Cassidy, 1999, p.65).

In his study, Matud (2004) examined gender differences in stress and coping in a sample of 2816 people (1566 women and 1250 men) between 18 and 65 years old, with different sociodemographic characteristics. The results of MANCOVA, after adjusting for sociodemographic variables, indicated that the women scored higher than the men in chronic stress and minor daily stressors. Although there was no difference in the number of life events experienced in the
previous two years, the women rated their life events as more negative and less controllable than the men. Furthermore, gender difference was found in 14 of the 31 items listed, with women listing family and health-related events more frequently than the men, whereas the men listed finance and work-related events. The women scored significantly higher than the men on the emotional and avoidance coping styles and lower on rational and detachment coping. Although the effect sizes were low, the results of this study suggest that women suffer more stress than men and their coping style is more emotion-focused than that of men.

However, any significant change could not be observed for the achievement related life events in the present study. The students in the group were not confident about their levels of English. They mostly mentioned difficulties of learning English. They were stating that although they were studying hard they were not getting the grades that they wanted. The Stress Management Program did not include a session related to English study skills or something related to learning a foreign language. Therefore, a future study should include a session about language learning skills.

Various types of stress management programs were used in the literature. As an example, Tallant, Rose and Tolman (1989) evaluated the effectiveness of a stress management treatment based upon transactional stress. Treatment components included teaching the cognitive behavioral skills of relaxation, cognitive restructuring and assertiveness within a structured small-group setting. Thirty two symptomatic volunteers were assigned to either a treatment or a wait list condition. Treatment consisted of eight two-hour weekly group session. On all measures of stress (Profile of Mood State, SCL-90-R, Daily Hassles Scale, Physiological and Behavioral Stress Inventory and Social Support Questionnaire) the treatment subjects evidenced significant pre to posttest reduction.

In a different study, a multidimensional stress management model was used for a preventive program for college students. The model was presented in a course format and included sessions in 3 general stress management areas - physical, cognitive and lifestyle. 86 undergraduates were either participated to stress
management course, career choice and career decision making course. Results indicated that students in the stress management class had significantly greater mean gain scores than students in the control classes in 4 of the behavior rating areas - regular relaxation, situational relaxation, aerobic exercise, and positive self-statement (Archer, 1986).

In the present study, no difference was observed for coping styles of the experimental group after the Stress Management Training Program. In the first session of the group, three things that lead to stress were mentioned. “You were expected to do something”, “The situation was ambiguous, unpredictable”, “The result, what you would get was important”. The possibility for mastery and gain is hard to identify. Also most of the students in the experimental group complained that although they study hard they cannot succeed.

Folkman, Lazarus, Gruen and DeLongis (1986) stated that the type of coping varied depending on what at stake (primary appraisal) and what the coping options were (secondary appraisal). Planful problem solving was used more in encounters that people appraised as capable of being changed for the better. Problem focused coping is aimed at problem solving or doing something to alter the source of the stress. Emotional focused coping is aimed at reducing or managing the emotional distress that is associated with the situation. Especially in academic situations, it might not be surprising to see a preference of either problem or emotion focused coping. This might be a reason for not observing any change in the group.

Ptacek, Smith and Dodge (1994) proposed that gender differences in coping strategies could arise from early socialization that promotes stereotypes of women as emotional, supportive and dependent, compared to men who portrayed as independent, instrumental and rational. Differences in women and men’s perception of control, influence and power over life may be another aspect responsible for gender variations in stress coping. Greenglass (1995) argued that stress research has focused primarily on men. The current conceptualization of stress is based almost entirely on the normative perspectives of men, and existing measures of stress have
been criticized as male oriented, which may undermine their usefulness for assessing stress in women’s lives (Iwasaki, MacKay & Mactavish, 2005).

Also, the Stress Management Training Program did not make any change in the experimental groups’ self-efficacy. There might be a need for further exploration of what other variables may be associated with self-efficacy in university population. Understanding how other variables relate to self-efficacy may help in developing more effective interventions to assist students with improving their performance and persistence in higher education. A study can be planned to compare high and low efficacious students and this might provide data for the development of interventions.

There is also a possibility that there might really be no difference for the students in their perceptions of self-efficacy for this group. Because most of them knew that they were among the best students in their high schools and selected students can come to Turkey’s one of the best universities. And the Stress Management Training Program could not create a difference for the students in their perceptions of self-efficacy.

5.2. Implication

In any given situation, which appears to have a number of potential sources of stress, only some of the people in that situation will actually experience stress. Ultimately stressors are defined by their meaning and emotional significance in the phonemic world of the individual (Olpin, 1997). Individual differences in response to stress can be categorized into two research literatures, which often overlap. These are research studies, which focus on personality and those, which focus on cognitive styles. The most important distinction is that personality perspectives tend to assume that the individual difference traits or characteristics are relatively stable over time and across situations, and at their most extreme assume that these traits are genetically inherited. The cognitive style perspective focuses on the patterns of thought that individuals engage in, patterns which could be relatively stable, but
which are clearly the product of learning and which are open to change and modification (Cassidy, 1999).

This study used cognitive style perspective and the effect of Stress Management Training Program was mostly observed on the experimental group’s perceived stress levels. Based on the current findings, training programs could be designed to increase awareness of the appraisal process and teach more efficacious, active strategies of coping with problems that are appraised as manageable. Support for a program of this type comes from MacNair and Elliot (1992), who found that the perception of the efficacy of one’s problem solving skills relates to the type of coping strategy chosen. Individuals who believe they are effective problem solvers are more likely to use problem-oriented strategies while self-perceived ineffective problem solvers tend to choose emotion-oriented strategies.

Failure of treatment to produce significant gains on the outcome measures may be due to a variety of reasons. A hypothesis stated in the stress management literature is that short-term training may not have provided sufficient time for students to effectively learn and integrate stress management skills. An alternative was offered as a longer stress management course in which students could be provided with more thorough strategies for dealing with the many types of stressors that they experience. For example, integrating more strategies that are salient for young adults during this developmental period, such as strategies for coping with physical concerns (eating disorders, sleep disturbances, weight gain and loss) and with interpersonal and existential issues (loneliness and intimacy) may improve the efficacy of stress management course.

Besides the above stated hypothesis, a short-term structured group treatment for stress has a number of advantages. Students need not commit themselves to a lengthy process, and the structured nature of intervention makes the training of leaders a simpler, more replicable process. The set of skills taught in Stress Management Training Program are broadly applicable, flexible and presumably generalizable to a great number of problems facing the students to whom counselors
address their helping efforts. And because treatment is provided in groups, service is cost effective relative to individual treatment.

5.3. Recommendations

There is a need for studies that evaluate the efficacy of interventions selected on the basis of their likely impact on the coping skills and processes necessary to deal with stressors confronted by students (Auerbach, 1989). Learning to cope with academic stress will provide students with life-long skills in stress management that they may employ as they enter the work world. A future study should include a Stress Management Training Program with a session about study skills. In this study, there was not an attempt to identify the relative efficacy of the different components of the training program; a future attempt might be useful to identify the effective components. One approach to identifying the relative potency of the elements in multi-component training programs is the dismantling strategy, in which different group of subjects are exposed to different program elements or combination of elements (Smith, 1989).

Future studies should also attempt to control for stress-producing variables, such as the approach of finals, or stress reducing variables, such as participation in aerobics outside the stress management training group. Future studies should examine the effects of a stress management education program on different populations.

Although stress management programs are being widely offered on college campuses for decades in United States, it is not that common in Turkey. Having a collaborative relationship with other counseling centers in Turkey will provide data to evaluate the effectiveness of Stress management training program and if needed changes can be made to improve the content of the program. Generalizability of the results is not possible due to the convenience sample and small study size and future studies could be conducted with a larger sample size.
Further research might study the stress reduction patterns of students for whom stress is not a concern. How and why are some students able to maintain lower stress levels? What strategies do they use for reducing stress? Are the stressors they experience unique in some way, or are they simply avoiding issues that create stress for other students? Research, which is targeted at understanding the practices and attitudes of these students, may provide valuable information that may be used to help students who are more susceptible to stress. Finally, stress may be institution specific. The perceived level of expectations regarding student performance is high in METU.

Also a difference was observed between the perceived stress scores of the Turkish student (M = 18.34, N = 366) and the participants of the Cohen’s study (1994) (M = 14.2, N = 645) in which the adaptation study of PSS-10 was carried out. This might give way to cross-cultural studies.

5.4. Conclusion

This study was conducted in order to investigate the effectiveness of a stress management group on different variables of first year university students. These variables, which were perceived stress, self-efficacy and coping styles, were selected as a result of observations that the researcher made for being a counselor at a university medical center. The effect of the stress management group was significantly observed on perceived stress and no difference was observed for other variables. This study was unique in the adaptation and the use of new instruments. Both explanatory and confirmatory factor analysis were conducted, therefore the factor structure of the scales were double-checked. The study was also unique in the application of a group program. Like many other studies, results were specific to the sample that was used in this study. Although this study had certain limitations, it is a contribution to the literature, which will give way to other related studies.
REFERENCES


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ODTÜ Sağlık ve Rehberlik Merkezi
Telefon: 210 49 28
### DEMOGRAFİK BİLGİ FORMU

1- Öğrenci Numaranız: ........................................

2- Cinsiyetiniz : ( ) K ( ) E

3- Yaşınız : ...............................................  

4- Bölümünüz : .............................................

5- Yaşadığınız yer : ( ) Ailenizle ( ) ODTÜ Yurdunda  
( ) Evde yalnız ( ) Evde arkadaşlarla  
( ) Akraba yanı ( ) Diğer

6- Devam ettığiniz kurs : ( ) Beginner ( ) Elementary  
( ) Intermediate ( ) Upper

7- Hazırlıktaki yılınız :

8- Yaklaşık olarak şu anki not ortalamanız : .............

9- Yaşamanız boyunca en uzun yaşadığınız yer: ( ) Büyükşehir ( ) Şehir  
( ) Kasaba ( ) Köy
Üniversite Öğrencileri İçin Yaşam Olayları Envanteri *

Aşağıda günlük yaşantıınızda size sıkıntı verebilecek bazı olaylar ve sorunlar belirtilmiştir. Her maddeyi dikkatlice okuyarak, son bir ay içerisinde ne kadar sıkıla böyle bir olay ya da sorunla karşılaştığınızı maddelerin karşılıklarında bulunan seçeneklerden uygun olanı işaretleyerek belirtiniz.

<table>
<thead>
<tr>
<th>Bu sorunu ne sıklıkla yaşadınız?</th>
<th>Hiç</th>
<th>Nadiren</th>
<th>Arasra</th>
<th>Sıkışık</th>
<th>Her zaman</th>
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<tbody>
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<td>1) Derslerin ağırlığı ve yoğunluğu</td>
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<td>2) Barınma ile ilgili sorunlar</td>
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<td>3) Ulaşım sorunu</td>
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<td>4) Zamanın sıkışığı</td>
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<td>5) Anne ve babamla aramızdaki çatışmalar</td>
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<td>6) Gelecekle ilgili kaygılar</td>
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<td>7) Arkadaş ilişkilerinde yaşanan sorunlar</td>
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<td>8) Sevdiğim insanlardan ayrı olmak</td>
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<td>9) Çevresel koşullardan (gürültü, havalar, kirlilik v.s)</td>
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<td>10) Okula uyum sağlayamamak</td>
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<td>11) Maddi problemler</td>
<td>1</td>
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<td>12) Uykusuzluk</td>
<td>1</td>
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<tr>
<td>13) Sorumluluklarını yerine getirememek</td>
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<td>14) Reddedilme korkusu</td>
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<tr>
<td>15) Çalıştığım işle ilgili sorunlar</td>
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<td>16) İş görüşmeleri ile ilgili kaygılar</td>
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<td>17) Yayın organlarındaki kötü haberlerle ilişkili kayıtlar</td>
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</tbody>
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* Ölçeğin tanıtımı amacıyla bazı örnek maddeler verilmiştir. Ölçeğin tamamına ulaşabilme için araştırmacıya iletişim sağlanabilir.
Aşağıda bulunan her bir cümlede ifade edilen durum için becerinize olan güven derecenizi değerlendirmeniz istenmektedir. **Lütfen size uygun olan seçeneğe çarpı işaretli koyunuz.**

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<thead>
<tr>
<th></th>
<th>Kendime hiç güvenmem</th>
<th>Kendime çok güvenirim</th>
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<tbody>
<tr>
<td>1) Gerekli olduğunda iyi yargılama yapabilirim.</td>
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<tr>
<td>2) Mantıklı düşünübilirim.</td>
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<tr>
<td>6) Başkalarının ne söylemek istediğini anlayabilirim.</td>
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<td>2</td>
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<tr>
<td>7) Olaylara geniş bir bakış açısıyla bakabilirim.</td>
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<tr>
<td>8) Bir iş benim için zor olsa bile bitirebilirim.</td>
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<tr>
<td>9) İyi olmadığını bir şeyin üstesinden gelebilirim.</td>
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<td>13) İşimi tamamlayıcaya kadar azimle devam edebilirim.</td>
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<tr>
<td>15) İlk kez tanıştığım insanlarla kısa sürede samımı olabilirim.</td>
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<tr>
<td>16) Yeni ortamlara göre kendimi ayarlayabilirim.</td>
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<tr>
<td>17) Bir şey yapmak için başkalarıyla işbirliği yapabilirim.</td>
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<td>2</td>
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</table>

* Ölçeğin tanıtımda amacıyla bazı önek maddeler verilmiştir. Ölçeğin tamamına ulaşabilmek için araştırmacıyla iletişim sağlanabilir.*
Bu ölçek geçen son ay içindeki duygusal ve düşünceleriniz hakkında sorular içermektedir. Sizden her bir soruda, taraf edilen duygusal veya düşünceniz ne kadar sıklıkla yaşadığınızı belirtmeniz istenmektedir. Bazı sorular birbirine çok benzer gözükse de aralarında birtakım farklılıklar bulunmaktadır bu yüzden her bir soruya ayrı ayrı düşünerek yanılt vermeniz istenmektedir. Bu amaçla her soruyu hızlı bir şekilde düşünerek yanıtlamanız uygunsuz. Tarif edilen duygusal veya düşünceniz geçen ay boyunca kaç kere hissettğiniz saymak yerine, verilen alternatiflerden size en uygun gelen seçeneği işaretlemeniz istenmektedir.

* Ölçeğin tanıtımlı amacıyla bazı örnek maddeler verilmiştir. Ölçeğin tamamına ulaşabilmek için araştırmacıyla iletişim sağlanabilir.

**Size uygun olan seçeneğe çarpi işaret et.**

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<tr>
<th>Numara</th>
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<th>Bazen</th>
<th>Oldukça sık</th>
<th>Çok sık</th>
</tr>
</thead>
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<td>1</td>
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<td>4) Geçen ay içinde, hangi sıklıkla kişisel problemlerinizi ele alma becerinizi konusunda kendinize güvendüğünü hissettiniz?</td>
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<tr>
<td>5) Geçen ay içinde, hangi sıklıkla işlerin istediğiniz yönde gittiğini hissettiniz?</td>
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<td>4</td>
<td></td>
</tr>
<tr>
<td>9) Geçen ay içinde, hangi sıklıkla kontrolününüzün dışında gerçekleşen olaylardan dolaylı kızgınlık hissettiniz?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>10) Geçen ay içinde, hangi sıklıkla zorlukların, üstesinden gelemeyeceğiniz boyutlara ulaştığınızı hissettiniz?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
ÖBÇÖ *

Bu ölçekte çeşitli davranış ve düşünce biçimlerini içeren ifadeler bulunmaktadır. Sizden bir an için üniversitede bir sınavda başarısız olduğunu hayal ederek bu ifadeleri yanıtlamanız istenmektedir. Lütfen her bir soruyu yanıtlarken “ Üniversitede bir sınavda başarısız olursam, genelde …” cümlesini aklınızda tutunuz ve uygun olan seçenekle çarpi işaret koyunuz.

<table>
<thead>
<tr>
<th></th>
<th>Bu ifade kesinlikle beni anlatmıyor</th>
<th>Bu ifade kesinlikle beni anlatıyor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Problemi en iyi nasıl ele alabileceğimi düşünürüm.</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>2</td>
<td>Adım adım ne yapam gerekiyorsa onu yaparım.</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>3</td>
<td>Bu durumun ortaya çıkmasının nedenini / nedenlerini düşünürüm.</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>4</td>
<td>Çabalarımı o durum için bir şeyler yapmaya yoğunlaştırm.</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>5</td>
<td>Sorunu ortadan kaldırmak için ek girişimlerde bulunurum.</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>6</td>
<td>Bir ders çalışma rehberi (yardımcı kitap) satın alırım.</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>7</td>
<td>Çalışma rehberimi kullanırım.</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>8</td>
<td>Ne hissettiğiimi anlatırım.</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>9</td>
<td>Bunun olduğuna inanmayı reddederim</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>10</td>
<td>Duygularımı dışa vururum.</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>11</td>
<td>Kendimi kötü hisseder ve duygularımı dışa vururum.</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>12</td>
<td>Kendimi kötü hisseder ve bunun gerçekten de farkında olurum.</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
</tbody>
</table>

* Ölçeğin tanıtımı amacıyla bazı örnek maddeler verilmiştir. Ölçeğin tamamına ulaşabilmek için araştırmacıyla iletişim sağlanabilir.
APPENDIX B

PATH DIAGRAMS OF THE QUESTIONNAIRES

College Adjustment Self-efficacy (CASES) – Estimates
College Adjustment Self-efficacy (CASES) – Standardized Solution
College Adjustment Self-efficacy (CASES) – t-Values
Perceived Stress Scale (PSS) – Estimates
Percieved Stress Scale (PSS) – Standardized Solution
Percieved Stress Scale (PSS) – t-Values

```
pss1 7.10
pss2 7.52
pss3 6.97
pss4 8.16
pss5 7.40
pss6 7.46
pss7 8.22
pss8 8.00
pss9 7.54
pss10 6.25
```
Student Coping Instrument (SCOPE) – Estimates
Student Coping Instrument (SCOPE) – Standardized Solution
Student Coping Instrument (SCOPE) – t-Values
APPENDIX C

INFORMATION ABOUT STRESS MANAGEMENT TRAINING GROUP PROGRAM

STRES YÖNETİM GRUBU KATILIM KONTRATI

Bu katılım kontrat 6 oturumlu Stres Yönetimi Grubu için düzenlenmiştir.

Bu grupta hedeflenen amaçlar gruba katılanların;

- Stres ve gerginlikten dolayı yaşadıkları fiziksel gerginliklerinde azalma sağlaması.
- Belirli stresi yönetme stratejilerini öğrenerek, bu konuda kendilerine güvenlerinin artması.
- Konsantrasyon ve zihinsel etkinliklerini artırmak akademik performanslarında yükselmesidir.

Bu amaçlara ulaşılırken grupta belli kurallar izlenecektir.

**Grup kuralları**

1. Grup oturumlarının süresi bir buçuk saat olacaktır.
3. Grupta sigara içilmeyecek, cep telefonları kapalı tutulmasına ve dikkat dağıtıcı unsurların olmamasına özen gösterilecektir.
5. Gizlilik ilkesine uyunması gereklidir.

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6. Grup üyelerinin birbirine saygı duyması ve diğer üyelerin gelişimi için çaba göstermesi önemlidir.

Bu kontrat Stres Yönetimi Grubuna amaçlarını benimseyerek katıldığınızı ve grubun bir üyesi olarak yukarıdaki kurallara uymayı kabul ettiğiizi göstermektedir.

Yukarıdaki kuralları okudum ve bu kuralara uyacağım.

Ad Soyadı İmza
ÖRNEK ANLATIM SLAYTLARI

STRES
• TANIMI
• GÖSTERİLEN TEPKILER
• NEDENLERİ
• YÖNETİMİ

STRESİ YÖNETMEK

BİLİNÇLİ YAŞAMAK
• Bilgilenmiş (Tanmak/Anlamak)
• Beceri Geliştirmek
• Eyleme Geçmek
• Değerlendirmek

STRESİ YÖNETMEK

BİLĠIĻENMEK
Evrensel Bilgiler
Bedenimin yapısı/işleyişi
Zihnimin yapısı işleyişi
Bana Özgü Olanlar
Aşkınlıkların ne olduğunu/nasıl sonuçlara yol açtığı

STRESİ YÖNETMEK

AMACIYA BİLĠIĻENMEK
Bedenimin aşkınlıkları
(Bana özgü bedensel tepkilerim)
Zihnimin aşkınlıkları/Tüm öğreniliklerim
(Kendime, diğerlerine, dünyaya ilişkin şemalarım)
Davranısal aşkınlıklarım
(Başağıma mekanizmalarım)

* Anlatımı gösteren örnek slaytlar verilmiştir.
**STRES Tanımı**

Canlı sistemlerin (organizmaların) varlıklarını (biyo-psiko-sosyal) sürdürmelerine (tekrar dengeye dönmelere) yönelik olarak işleyen, kendilerine doğa taraftından "verilmiş olan" otomatik/anlık/tüm sistemi harekete geçiren fizyolojik bir tepki olarak belirtildiğinde bu tepki "Farkedilmesi" olarak adlandırıldı. Biyolojik (zihnimizin devreye girdiği), psikolojik (zihnimizin devreye girdiği) ve sosyal dengemiz değiştiğinde bozulduğunda

**STRESE YOL AÇAN 3 KOŞUL**

Sizden bir şeyler beklenmektedir.
Duruma belirsizlik hakimdir.
Sonuç sizin için önemlidir.

**STRESLE BAŞETME YÖNTEMLERİ**

**Etkisiz yöntemler** (Daha çok stres yol açarlar)

- Bedene yönelik olanlar
  - İlaç/alkol/su/gıda bağımı
  - Kötü beslenme
- Duygulara yönelik olanlar
  - Psikolojik savunma mekanizmalarının aşımı
  - Bilîselle çarpışmalar
- Davranışlara yönelik olanlar
  - İçe kapanmak
  - Saldırısalık

**Etkili yöntemler**

- Bedene yönelik olanlar
  - Fizik egzersiz
  - Nefes egzersizleri
  - Derinlemesine geveşme
  - Meditasyon
  - Doğru beslenme
- Duygulara yönelik olanlar
  - Hayatta deneyimci yaklaşımlar
  - Stresli durumlar "mücadele olanağı" gibi gerçek
  - Davruları revizyona

* Anlatımı gösteren örnek slaytlar verilmiştir.
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Davranşlara yöndelik olanlar
Zamani iyi kullanma
Sosyal destek sistemlerini kullanma
Etkili problem çözme becerileri
Bilgi topluyarak durumu tahmin edilebilir hale getirme

Stres ve Beslenme Aşkınlıklarımız
Kendiliğinden stres yolu açanlar
Kafein, Çay, Cola, Kakao
Yoksunlukları/Fazlalıkları
• Kayıp/Hızlanma
• Düşmanlık/Kısa ömürlük
• Uyku hastalığı
• Kaşıklık/kadınlara zevde
• Mide rahatsızlığı
• Kas zayıflığı

Stres Yönetimi

15 SORUDA STRES YÖNETİMİ

Neredeyim?
Neler okuyorsunuz? Olayı nasıl anlıyorsunuz?
Bu olaya ilgili kuralları neler?
Bu olaya ilgili yaklaşımları düşünüyor musunuz?
Olayı nasıl yorumluyorsunuz?
Olayı açıkça tanımlayacak bir bilgiye sahip misiniz?

Durumu mu deşifre etmek?
Durumu mu deşifre etmek?
Durumu mu deşifre etmek?

Bu deşifre edilecek bir neye mal olacak?
Bu deşifre edilecek bir neye mal olacak?

* Anlatımı gösteren örnek slaytlar verilmiştir.
DÜŞÜNCE HATALARI

Ya Hep Ya Hiç şeklinde düşünmek: Durumu bir devamlı şekilde görüyorum ki aynı kategori haline getirmek

Aşırı Genelleme: Durumun çok ötesinde olumlu bir sonucu alıyorum.

Olumunun Alanın Biyoz: Olaya katılmadığımız duruma tek bir olumlu durumu düşürmek

Olumuna Göçeriz Kılınmak: Olayın olasılığını dikkate alınıp almayın; yok saymak

Hemen bir sonucu varmak
dikkatle öğrenmek: Diğer olasılıkların olasılığını düşürmek, bu nedenle sonucu dikkate almayı neden yapmak

Büyük Öğrenme Yapmak

GİRİŞENLİK NEDİR?

Girişenlik, kendiniini gösterebilmeniz, duygular ve düşüncelerinizi dikkate alındığında emin olmanız ve baskılarının her zaman önemlere değerlerine izin vermemesi anlamına gelmektedir

* Anlatımı gösteren örnek slaytlar verilmiştir.
* Anlatımı gösteren örnek slaytlar verilmiştir.
Stresle başetmede unutulmaması gereken noktalardan birisi de stresin oluşmasına kişinin karşılaştığı olaylara ilgili yorumlamalarının ve değerlendirme melerinin etkili olduğudur.

Bireyin olayları anlamlandırığı ve yönlendirdiği stresi azaltmada veya çoğaltmada temel faktördür.


* Anlatımı gösteren örnek slaytlar verilmiştir.
PROBLEM ÇÖZME BECERİLERİ

Bu bölümde problemlerimizi nasıl ele alacağımızda dair pratik bir problem çözüm yaklaştırmımızı deneme ve öğrenme imkânı olacaktır.

1. Adım: Problemlerim nelerdir?
İlk olarak, yaşadığınız farklı durumları, ilişkilerinizi ve karşılaştığınız problemleri düşünün.

Durum, ilişki ve yaşanan problemler.
1-………… ile olan ilişkinimde güçlükler (tartışmalar) yaşıyorum.        Evet     Hayır
(Buraya kişinin ismini yazın)
2- Ailemden destek göremiyorum, onlarla gerçekten konuşamıyorum.        Evet     Hayır
3- Arkadaşlarımızdan destek göremiyorum, onlarla gerçekten konuşamıyorum.        Evet     Hayır
4- Etrafında gerçekten konuşabileceğim kimse yok.        Evet     Hayır
5- Para konusunda sıkıntı yaşamıyorum.        Evet     Hayır
6- Yaşadığım yerden hoşlanmiyorum.        Evet     Hayır
7- Ev/Oda arkadaşlarınızla sorun yaşamıyorum.        Evet     Hayır
8- Çalışmalarından hoşlanmiyorum.        Evet     Hayır
9- Diğer (………………………………………………) (açık bir şekilde belirtiniz).

Bu yaklaşımındaki kilit nokta, kişileri üstüst eden, yaşadığınız olayların kendileri değil, fakat kişilerin bu olaylar hakkında nasıl düşündükleridir. [(Bizi etkileyen olaylardan çok olaylara yükleştığınız anlamlar (appraisal)]. Fakat, bu yaşam alan problemlerin göz ardı edilmesi anlamına gelmemektedir. Esas amaç, problem çözme yaklaşımda ile yaşanan problemlerin üstesinden gelmeye çalışmaktır. Çünkü problemler hayatımızdan eksik olmayacaktır. Problemin çözümüne yardımcı olmayacak olmusuz ve aşırı uçtaki düşünceleri değiştirmeye çalışmak önemlidir. Problemlere adım adım yaklaşıarak, onları çözmeye başlayabiliriz. Çünkü herşeyle bir anda ilgilenenmek olanaksızdır. Problemleri etkili bir biçimde ele alabilmek için,
ilk başta en önemli problemi belirlemek yararlıdır. Bu şu an için diğer problemleri bir kenara bırakmanız anlamına gelmektedir. Şimdi şu soruları ele alalım:
S- İlk olarak sadece tek bir problemi çözmeye planlanmanın avantajları ne olabilir?
S- Her şeyi aynı anda değiştirmeye çalışmanın olası tehlikeleri nelerdir?

2. Adım: Problem Çözme Aşamaları

Problem çözme aşamaları:
- Her problemi sırayla ele almak
- Problemi açık bir biçimde tanımlamak
- Büyük ve başa çıkması zor gibi gözüken problemleri, çözümü kolay olabilecek küçük parçalara bölmek
- Probleme adım adım yaklaşmak

3. Adım: Olası her çözümün etkinliğini değerlendirmek

<table>
<thead>
<tr>
<th>Öneriler</th>
<th>Avantajları</th>
<th>Dezavantajları</th>
</tr>
</thead>
</table>

4. Adım: Çözümlerden birini seçmek

Yapılan seçim aşağıdaki iki kriteri karşıtıysa uygun bir çözüm olabilir.

a) Bu seçeneğin bana yardımcı olur mu? Evet / Hayır
b) Başarılırlar mı?/gerçekleştirebilir mi? Evet / Hayır
5. Adım: Çözüm için yapılması gerekenleri planlamak

Planlanan çözüm:

1) Nasıl olduğumu anlamamda ve kendimi değiştirmemde faydalı olacak mı? Evet Hayır

2) Bu işler çok açık bir biçimde tanımlanmış mı? Bu işleri tamamladığımı nasıl anlayabileceğim? Evet Hayır

3) Bu işler gerçekçi mi? Pratik ve başarılı olabilir mi? Evet Hayır

4) Ne zaman ve ne yapacağımı açıkça ortada mı? Evet Hayır

5) Bu seçimde kolayca engellenebilecek bir şey var mı? Evet Hayır

6. Adım: Uygulamaya geçmek

7. Adım: Sonuçların değerlendirilmesi

- Seçilen çözüm başarılı oldu mu? Evet Hayır
- Proje sonunda tamamlanacak mı? Evet Hayır
- Bu çözüm yolunun dezavantajları var mıydı? Evet Hayır
1. Bölüm
Girişkenlik nedir?


Girişkenlik öğrenilebilecek bir beceridir. Kişilerin kendilerinin farkında olacakları ve kendilerine güvenlerini artırabilecekleri bir iletişim ve davranış biçimidir/yoludur.

Hepimiz, yaşamımızda bazı zamanlar, kendimize ne kadar güvenirsek güvenelim, karşılaştığımız çeşitli durumları ele almakta zorlanırsınız. Bunlara örnek olarak:

- Üniversitede bir hocayla konuşmak
- Daha önce bizden alınmış olan bir şeyi geri istemek
- Zorlu ev/oda arkadaşlarıyla baş etmek
- Duygularımızı arkadaş, aile ya da sevgiliye anlatmayı verebiliriz.


Girişkenlik nereden gelmektedir?

Bizler büyüme sürecimizde, davranışlarımızı başımıza gelenlerin sonuçlarına göre ayarlamayı öğreniyoruz. Örneğin, kendimize öğretmenlerimizi,
Anne-babalarımızı, arkadaşlarımızı model alıyoruz. Yazılı ve görsel basından etkileniyoruz. Eğer, bu süreçte kendimize güvenimiz örneğin, aile içindeki eleştirilerden, okulda arkadaşların tutumlarından olumsuz etkilenirse, yetişkin yaşamımızda bu tür benzeri durumlarla karşılaştığımızda pasif yada saldırgan bir tavır sergileme eğiliminde oluyoruz.

Girişkenliğin yararları

Girişkenlik, kendinize ve diğerlerine yönelik dürüst ve yardımcı olan bir tutumdur. Girişkenlikte, ne istediğinizi
- Doğrudan ve açık olarak
- Uygun bir biçimde, kendi düşüncelerine ve haklarınıza güvenerek/sayıduyarak ve başkalarının da aynı şeyi yapmalarını bekleyerek
- Kaygılanmadan, güven içinde belirtmenizdir. Siz girişken davranarak,
  - Başkalarının haklarını ihlal etmiyorsunuz.
  - İnsanların sizin ne istediğini bilmelerini beklemiyorsunuz.
  - Kaygidan donup kalmadan, güçlüklerden kaçınmyorsunuz.

Sonuç ise, artmış bir kendine güven ve karşındaki kişilerden görülen saygı oluyor.

2. Bölüm
Girişkenlik çabalarınızı gözden geçirilmesi

Birinci bölümde girişkenliğin, kendinizi gosterebilmeniz, duyguya ve düşüncelerinizi dikkate alındığından emin olmanız ve başkalarının her zaman önumüze geçmelerine izin vermemeniz anlamına geldiğini öğrendiniz. Bu saldırınlıkltan oldukça farklı bir davranış biçimidir.
APPENDIX D

HOMEWORK ASSIGNMENTS OF RELAXATION TRAINING

Gevşeme Egzersizleri Ödev Formu

Ödev 1


Ödev 2


Ödev 3


OLUMSUZ DÜŞÜNCELERİNİZYE MEYDAN OKUMANIZA YARDIMCI
OLABİLECEK 20 SORU

1. Düşünce ile gerçeği birbirine mi karıştırıyorum?
2. ACELE sonuçlara mı varıyorum?
3. Sadece benim bakış açımım mı doğru olduğunu varsayıyorum?
4. Böyle düşünmek beni nasıl etkiliyor?
5. Bu düşüncenin avantaj ve dezavantajları nelerdir?
6. Cevabı olmayan sorular mı soruyorum?
7. Ya hep ya hiç şeklinde mi düşünuyorum?
8. Çok abartılı kelimeler mi kullanıyorum?
9. Genellemeye hatalı mı yapıyorum?
10. Sadece zayıf taraflarına mı odaklanıyorum?
11. Benim hatam olmayan bir durumdan dolayı kendimi mi suçluyorum?
12. Her şeyi çok kişisel olarak mı değerlendiriyorum?
13. Mükemmel olmaya mı çalışıyorum?
14. Çifte standart mı uyguluyorum?
15. Sadece olumsuzlara mı odaklanıyorum?
16. Felaket senaryoları mı yazıyorum?
17. Olayların önemini abartıyor muyum?
18. Durumu ve olayları kabul etmek ve başa çıkmayı çalışmak yerine sadece söyleyiyor muyum?
19. Durumumu değiştirmek için elimden bir şey gelmeyeceğine mi inanıyorum?
20. Deneyip görmek yerine falcılık mı yapıyorum?

Hazırlayan: Doç. Dr. Hakan Türkçapar
APPENDIX E

TURKISH SUMMARY

TÜRKÇE ÖZET

STRES YÖNETİMİ EĞİTİMİ PROGRAMININ ÜNİVERSİTE ÖĞRENCİLERİNİN ALGILADIKLARI STRES, KENDİNE YETERLİLİK VE BAŞA ÇIKMA STİLLERİ ÜZERİNDEKİ ETKİSİ


Yeterlilik algısı, kişisel değişimin her aşamasını etkilemektedir- (sıklık alışılanlıklarının değişimi, daha başarılı olabilmek ve bunu sürdürebilmek için yapmayı seçikleri ve yapılan değişikliklerin sürekliğinin sağlanmasını gibi) (Bandura,1990). Kişiler, yeterlilik algılarını geliştirebilmek için motivasyonlarını artıracak ve davranışlarını değiştirebilecek beceriler edinmelidirler.

göre bireysel farklılıklar, değerlendirime sürecini, dolayısıyla başa çıkma stratejilerini ve uyuma yönelik sonuçları etkilemektedir. Bu uyumsal sonuçlar, üniversiteye uyum olabilir ve bu da bireylerin başa çıkma etkinliklerinin sonucudur.


Stres, modern hayatta sürekli varolan bir olgu olduğundan, stres yönetiminin sağlık harcamalarını azaltmada etkin bir yol olduğu belirlenmiştir. Önleme çalışmalarına artarak yapılan vurgu ile stresi azaltmanın yaşam kalitesini arttırdığı, kronik hastalıklarla uyumu kolaylaştırıldığı ve bunların yanında sağlık sisteminin kullanımını ve ona olan bağımlılığı azalttığı fark edilmiştir (Stetson, 1997; Smith, 1989).


Bu sebeple, üniversite yıllarının akademik taleplerin ve üniversite hayatını getirdiği gelişimsel süreçlerin artmasından dolayı stresin yüksek olduğu bir dönem olduğu, bilişsel ve davranışsal yönetimli bir stres yönetimi programının bu dönemde öğrencilere yardımcı olabileceği düşünülmüştür.

Bu çalışmanın amacı, stres yönetimi eğitim programının Orta Doğu Teknik üniversitesi hazırlık öğrencilerinin algıladıkları stres, kendine yeterlilik ve başa çıkma stilleri üzerindeki etkisini değerlendirmektir. Stres yönetimi eğitim programı

Yöntem


Kullanılan Ölçme Araçları

Demografik Anket

Cinsiyet, yaş, yaşanan yer, İngilizce bilgi düzeyleri, anne ve babaların eğitim düzeyi gibi bilgiler bu anket ile öğrencilerden toplanmıştır.

Üniversite Öğrencileri için Yaşam Olayları Anketi (ÜÖYOA; Life Events Inventory for University Students)

Bu anketin orijinali 1999 yılında Oral tarafından öğrenciler tarafından yaşanan belirli engeller ve yaşam olaylarının sıklığını ölçmek üzere 49 maddelik 5’li Likert tip (1 = Hiç bir zaman, 5 = Her zaman) olarak hazırlanmıştır. Daha sonra Dinç (2001) ek maddeler ekleyerek ölçü faktör analize sokmuş ve “Başarı temelli
yaşam olayları“ ve “Sosyal temelli yaşam olayları” olarak iki faktör yapısı elde etmiştir. Toplamba iki faktör varyansın % 27.44’ünü açıklamaktadır. ÜOYOA toplam puanı maddelerin toplanmasıyla elde edilmektedir. Ölçeğin iç tutarlılık katsayısı .90, başarı ve sosyal olaylar alt faktörleri için sırasıyla .88 ve .86 olarak bulunmuştur.

**Üniversiteye Uyumda Kendine Yeterlilik Ölçeği (ÜUKYÖ, Colege Adjustment Self-efficacy Scale)**

Bu ölçek 21 maddeyle kişinın üniversite kariyerini tamamlaması için gerekli beceriler konusunda kendine olan güvvenin düzeyini ölçmektedir. Öğrencilerden her bir cümlede ifade edilen durum için becerilerine olan güven derecelerini değerlendirmeleri istenmektedir. Cevaplandırıma 0 (hiç güvenmem) ile 4 (çok güvenirim) arasında 5’li değerlendirme ölçeği üzerinde yapılmaktadır. 21 maddeden elde edilen toplam puan üniversiteye uyumda kendine yeterlilik puanı olarak kullanılmaktadır. Objektif bilgiye dayalı karar verme becerisi, aktivitenin kişisel çabayla sürdürülmesi, ve insan ilişkilerine uyum olmak üzere üç temel faktör yapısı bulunmaktadır; İç tutarlılık katsayısı tüm ölçek için .88 olup faktörler içinde sırasıyla, 81, .82 ve .75 olarak bulunmuştur. Geçerlilik çalışması için Rosenberg Kendine Güven Ölçeği ile olan korelasyon .54 olarak bulunmuştur.

**Algılanan Stres Ölçeği (ASÖ-10)**

Öğrenci Başa Çıkma Ölçeği (ÖBÖ; Student Coping Instrument)

Öğrenci Başa Çıkma Ölçeği (Struthers, Perry & Menec, 2000) temel olarak Carver’ın Başa Çıkma Stratejileri (COPE) adlı ölçeğine dayanmaktadır. 30 maddelik bu ölçek, öğrencilerin üniversitede başarsızlık yaşadıklarında uyguladıkları bazı düşünce ve davranış biçimlerini ölçmek için geliştirilmiştir. Öğrencilerin maddeleri, “Üniversitede bir sınavda başarısız olursam, genelde….“ Yönergesini akillarında tutarak cevaplamaları istenmektedir. Cevaplar 10’lu Likert tip değerlendirmeye ölçülen 1 = Bu ifade kesinlikle beni anlatmıyor, 10 = Bu ifade kesinlikle beni anлатıyor, verilmektedir. Bu ölçekte iki faktör yapısı bulunmaktadır, Faktör 1, problem odaklı ba.sha çıkma, 15 maddeden oluşmaktadır, 4 alt ölçeği vardır, bunlar, genel aktif ba.sha çıkma, akademik planlama, aktif çalışma ve yeterlilik ve. Faktör 2 ise duygusal odaklı ba.sha çıkma ve o da 15 madde ve 4 alt ölçekte oluşmaktadır; duygusal boşalma, genel duygusal destek, inkar ve akademik ortamdan uzaklaşma alt ölçeklerdir. Ölçeğin güvenilirliği .80 alt ölçeklerin ise sırasıyla .80 ve .70 olarak bulunmuştur.

Ölçeklerin Geçerlilik Güvenilirlik Çalışmaları ve Faktör Analizleri

Üniversite Öğrencileri için Yaşam Olayları Anketinin Faktör Analizi


İç tutarlılık katsayısı tüm ölçek için .91, sosyal ve başarı ile ilgili yaşam olaylarında sırasıyla .89 ve .84 bulunmuştur.

Üniversiteye Uyumda Kendine Yeterlilik Ölçeği

Temel Bileşenler Analizi ve Varimax döndürülmuş faktör çözümlemesi kullanılarak üç faktör elde edilmiştir. Faktör I “Aktivitenin kişisel çabayla sürdürülmesi” (madde 8-14), madde yükleri .47 ila .72 arasında, faktör II “objektif bilgiye dayalı karar verme becerisi” (madde 1-7) madde yükleri .39-.69 arasında, ve factor III “insan ilişkilerine uyum” (madde 15-21) madde yükleri .32-.64 arasında bulunmaktadır. Faktörler toplu olarak varyansın % 37.43’unu, sırasıyla, %15.77, % 12.11 ve % 9.54’ünü açıklamaktadır. İç tutarlılık katsayısı ise tüm ölçek için .84, faktör I için .78, faktör II için .81, faktör III için ise .63 olarak bulunmaktadır.

Rosenberg kendine güven ölçeği ve üniversiteye uyumda kendine yeterlilik ölçeği arasındaki korelasyon .35 (p< 0.01) olarak bulunmaktadır.

Algılanan Stres Ölçeğinin Geçerlilik Güvenilirlik Çalışması

Algılanan Stres Ölçeğinin Türkçe Versiyonu için iç tutarlılık katsayısı .84 olarak bulunmaktadır. Genel Sağlık anketi ile aralarında .71’lik bir ilişki olduğu görülmüştür. Madde yükleri .54 ile .77 arasında değişkenlik göstermiştir. Genel
olarak bulgular Algılanan Stres Ölçeğinin Türk örneklemini için geçerli ve güvenilir bir ölçek olduğunu göstermektedir.

**Öğrenci Başa Çıkma Ölçeği Faktör Analizi**

Faktör analizinden önce ilk adım olarak, güvenilirlik analizi yapıldı. Madde toplam korelasyonuna göre, .15’ten küçük korelasyonu olan maddeler analizden çıkarıldı. Bunlar 9, 10, 19, 21, 22, 27, 28, 29, 30 numaralı maddelerdir. Daha sonra yapılan güvenilirlik analizine göre tüm ölçek için .79, Problem odaklı başa çıkma için .75 ve Duygu odaklı başa çıkma için .85 bulunmuştur.

İkinci olarak, temel bileşenler analizi Eigen değeri 1 olan altı faktör tanımlanmıştır. Bunlar varyansın % 66.75’i açıklıktır. Sonra orijinal ölçekle paralel olarak, iki faktör çözümlemesi uygulanmıştır ve iki faktör elde edilmiştir. Birinci faktör “duygusal odaklı başa çıkma” 9 maddeden (madde 11, 14, 15, 16, 17, 18, 19, 20, 21), ikinci “problem odaklı başa çıkma” 12 maddeden (madde 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13) oluşmuştur. İlk faktörün madde yükleri .34 ile .82, ikinci faktörün ise .35 ile .71 arasında değişmektedir.


**Doğrulayıcı Faktör Analizi**

İşlem

Ölçeklerin geçerlilik güvenceliği ve faktör analizleri yapıldıktan sonra deneySEL çalışmaya geçilmeden önce, Orta Doğu Teknik Üniversitesi Yabancı Diller Yüksek Okulu ‘2002-2003” akademik yılı ikinci dönemi öğrencilerine Yüksek Okul müdürünün izniyle ölçekler pilot uygulama olarak 141 öğrenciye dağıtılmış.


Stres Yönetimi Grup Programı


Birinci Oturum

Grubun başında ilk olarak grup üyeleri ve grup yöneticisi bir birlereyle tanışmışlardır. Yönetici grubun içeriği ve süreç hakkında bilgilendirme yapmıştır. Fakat, bu çalışmada grup oturumlarının sınavlara çıkması sebebiyle bazı uygulama zamanlarında değişiklikler olmuştur. Snav haftalarında ertelenen oturumlar bir sonraki hafta yapılmıştır. Grup üyeleri ilk oturuma gelmeden önce
Grup Katılım Kontratını doldurmuşlardır. İlk oturumda ayrıca grup üyelerine böyle bir gruba katılmayı amaçları ve gruptan beklentilerini de paylaşmışlardır.

Her bir üyeden stresin tanımı yapmaları ve bu yaşadıklarını vücudlarının nerelere hissettiklerini belirtmeleri istenmiştir. Daha sonra, slayt sunusu yapılmıştır. Slayt sunumun taslağıyla başlayıp, stresin tanınıp, stres tepkilerinin neler olduğu, fark edilebilen ve edilemeyen fizyolojik tepkilerin neler olduğunu, anlık-yararlı, kronik-zararlı stres tepkilerini, oluşan fizyolojik değişikliklerle ilgili bilgileri içermektedir (Slaytlara ekler kişisel bilgileri içermektedir). Slaytların çıktıları öğrencilere dağıtılmıştır. Oturumun sonunda öğrencilerden ev ödevi olarak stresli durumlarda kullandıkları başka çıkış yollarını yazarak getirmeleri istenmiştir.

İkinci Oturum


Üçüncü Oturum

Oturumun başında grup üyelerine gevseme egzersizlerini ne kadar tekrar edebildikleri sorulmuştur. Değerlendirme yapıldıktan sonra bilişsel yeniden yapılandırılmaya geçilmiştir. Slayt gösterimine bir kaç alüminum resmi örneği ile başlanmış, gördüklerimiz algıladıklarımızdır, şekil olarak ya da zemin olarak ne
alguşanıyorsa gördüklerimiz ona göre değişmektedir açıklamamıştıryla vazo resmi gösterilmiştir.

Görsel algılama örnekleriyle başlanarak, düşünceler verilen tepkileri nasıl etkiliyordu geçilmiş ve bizi etkileyen olaylardan çok olaylara yükledüğümüz anlamalar olduğu vurgusu yapılmıştır. Güncel stres araştırmalarında da stresin olayların içinde kendiliğinden varolmadığı, kişinin olayları değerlendirmesine göre olayın stres yaratıp yaratmamasını değiştği belirtilmiştir.

Daha sonra irrasyonel düşünceler kavramı örneklerle grup üyelerine anlatılmış ve örnekler verilirken üyelerin yaşayan yaşamadıkları sorulmuştur. Otomatik düşünce formları ve düşünce hataları listesi fotokopileri üyelere dağıtılmıştır. Bu düşüncelerle mücadele etmek için kullanılabilecek 20 sorununda listesi verilmiştir.

Dördüncü Oturum

Beşinci Oturum


Bu basamaklar grup üyelere bir örnek üzerinden aktarılmış ve daha sonra üyelere paylaşmak istediğleri bir problemleri olup olmadığını sorulmuştur. Zaman kısıtlılığından dolayı tek bir üyenin örneği üzerinden gidilmiştir. Oturum sonunda problem çözmenin yedi basamağını tanımlayan fotokopiler dağıtılmıştır. Üyelerden bir sonraki oturuma yaşadıkları bir problemi yazıp getirebilecekleri söylenerek oturum sona ermiştir.

Altıncı oturum

Son oturum girişkenlik becerilerine ayrılmıştır. Girişkenlik becerileri, girişkenlik tanımı nedir diye sorulmadan önce üyelere problem çözme konusunda


Bulgular


Üç yüz altmış altı öğrencinin üniversite öğrencileri için yaşam olayları ölçeğinin sosyal olaylar alt faktöründen elde ettiği ortalama puan 54.66, standart sapma ise 14.45’tir. Başarı alt faktörü için ise ortalama puan 43.34, standart sapma 11.30 bulunmaktadır.

Üniversiteye uyum ölçeğinde toplam puanın ortalamaşı 62.82, standart sapma 11.20 bulunmaktadır. Faktör 1 için “Aktivitenin kişisel çabayla sürdürülmesi” ortalama puan 20, (SS = 4.95), faktör 2 “objektif bilgiye dayalı karar verme becerisi” için ortalama puan 22.44, (SS = 5.08), faktör 3 “insan ilişkilerine uyum” için 20.36, (SS = 5.10) olarak bulunmaktadır.

Tek yönlü varyans analizi ile cinsiyete göre üniversite öğrencilerinin yaşam olayları, algılanan stres, kendine yeterlilik ve başa çıkma stilleri bağlı değişkenlerinde farklılık gösterip göstermediklerine bakılmıştır. Analiz sonuçlarına cinsiyetin sosyal içerikli olaylara $F(1,346) = 14.33$; $p<.01$, algılanan strese $F (1,346) = 6.14$, $p <.01$ ve Öğrenci Başa Çıkma Ölçeğinin ikinci faktörü olan duyguşal odaklı başa çıkma F(1,346) =35.33, $p <.01$ farklılık gösterdiği bulunmuştur. Kız öğrenciler erkek öğrencilere göre bu ölçeklerden daha yüksek puanlar elde etmişlerdir.

**Deneysel Çalışma**

**Deney Grubu Verileri**

Deneysel çalışmada deney grubu öğrencilerin Üniversite öğrencileri için yaşam olayları ölçeğinin sosyal olaylar alt faktöründen ön test ölçümlerinde ortalama olarak elde ettiği puan 64.37, standart sapma ise 15.27'dir. Son test ölçümleri ise 57.25 ve standart sapma için 12.89 olarak bulunmuştur. Başarı alt faktörü için ise ön test ölçümlerinde ortalama puan 53.87 standart sapma 12.56 olarak bulunmuştur. Son test ölçümlerinde ise ortalama 48.37, standart sapma 12.96 olarak bulunmuştur.

ön test ortalaması 19.50, standart sapma 4.40 olarak, post test olarak ortalama 18.75, standart sapma 1.48 bulunmuştur.

Algılanan stres ölçeği için ön test ortalaması 22.25, standart sapma 3.65, son test ortalaması 17.75, standart sapma ise 5.33 bulunmuştur.

Öğrenci başa çıkma olguğunun ilk faktörü olan problem odaklı başa çıkma için ön test ortalaması 50.62, standart sapma 8.60, post test için 52.12 ve standart sapma 7.25, ikinci faktör olan duygusal odaklı başa çıkma için ön test 65.87, SS = 25.68, son test ortalaması 76.50 ve standart sapma 17.15 olarak bulunmuştur.

**Kontrol Grubu Verileri**


Algılanan stres ölçüğü için ön test ortalama puan 21.70, standart sapma 8.89, son test ortalaması 22.00, standart sapma ise 8.05 bulunmuştur.

Öğrenci başa çıkma ölçüğinin ilk faktörü olan problem odaklı başa çıkma için ön test ortalama 44.37, SS = 15.84, post test için 49.50 ve standart sapma 11.72, ikinci faktör olan duygusal odaklı başa çıkma için ön test 55.87, standart sapma 16.95, son test ortalaması 65.12 ve standart sapma 18.53 olarak bulunmuştur.

Kontrol ve Deney grubunun öntest- son test farklılıklarının incelenmesi

Kontrol ve deney gruplarının uygulama öncesinde ve sonrasında farklılık gösterip göstermediklerini incelemek için Mann Whitney U testi yapılmış ve öntest ve son test sonuçlarında anlamlı bir fark bulunmamıştır.

Stres Yönetimi Grup Programının Etkinliğinin Değerlendirilmesi

Etkinlik değerlendirilmesi için örneklem sayıları parametrik yöntem kullanılması için yeterli olmadığından parametrik olmayan yöntemden iki bağlılı örneklem Wilcoxon testi kullanıldı. Wilcoxon testi eşleştirilmiş, tekrarlanmış puanların farklılarının değerlendirilmesinde kullanılmaktadır. Bu analiz sonucunda sosyal alanla ilgili yaşam olaylarında \[z = -1.97, p = 0.05\] ve algılanan stres düzeylerinde \[z = -2.52, p = 0.01\] ön test son test ölçüm sonuçlarında deney grubunda anlamlı bir fark bulunmuştur.

Tartışma

Bu çalışmanın temel amacı, stres yönetimi eğitim programının Orta Doğu Teknik Üniversitesi Hazırlık bölümü öğrencilerinin bazı değişkenleri üzerindeki etkisini incelemektir. Bu değişkenler, algılanan stres, kendine yeterlilik ve öğrencilerin başa çıkma stilleridir.

Araştırmada ön test son test deneysel kontrol grup deseni kullanılmıştır. Altı oturumlu grup programı deneysel gruba uygulanırken, kontrol grubuna bir uygulama yapılmamıştır ve verilerin analizinde iki grubun son test ölçümülerinde
algılandıkları stres düzeyleri ve sosyal alandaki yaşam olaylarının sikhığında anlamlı bir fark bulunmuştur. Altı haftalık eğitim almış deney grubunun kontrol grubuna kıyasla bu alanlarda gelişme gösterdiği görülmüştür. Diğer bir deyişle, stres yönetimi eğitim programı deney grubundaki öğrencilerin algılandıkları stresin düzeyini ve sosyal içerikli yaşam olaylarının sikhığını azaltmıştır.


Üç yüz altmış altı öğrencinin verilerine bakıldığında kız öğrencilerin erkek öğrencilere göre algılandıkları stres düzeylerinin yüksek olduğu, sosyal alanla ilgili
yaşam olaylarını daha fazla yaşadıkları ve duygusal odaklı başa çıkmayı daha fazla kullandıkları görülmüştür. Literatürde bu farklılığın cinsiyetle, kadın ve erkeklerin farklı sosyalisteion şerpptülerinin olmasyla ilgili açıklamalar bulunmaktadır (Caballo & Cardena, 1997; Huba & Bentler, 1986).


Bu çalışmada ayrıca öğrencilerin başa çıkma stilleri ve kendine yeterlilikleri de değerlendirilmiştir fakat kontrol grubunda olduğu gibi deney grubunun ön test son test sonuçlarında bir farklılık gözlenmemiştir. Bunun sebebi öğrencilerin bu konu ile ilgili edindikleri becerileri kısa sürede hayata geçirememiş olamaları olabilir. Ayrıca belki stres yönetimi eğitimin programının içine kendine yeterliliği arttıran bilecek daha farklı uygulamalar arastırabilir konulabilir. 


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APPENDIX F

CURRICULUM VITAE

PERSONAL INFORMATION

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Date and Place of Birth: 16 November 1972, Ankara
Marital Status: Married
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EDUCATION

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WORK EXPERIENCE

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<td>Pırlı Special Education</td>
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FOREIGN LANGUAGES

Advanced English

TRAINING AND SEMINARS

- Visiting Research Scholar at Ohio State University- 8 months-2001-2002
- Eye Movement Desensitization and Reprocessing (EMDR) Institute Certificate of Completion- Level I and Level II of EMDR Training-2000
- Turkish Psychological Association-1999 Certificate of Gratitude-Volunteer member of on-site psychological support team for 1999 Marmara Earthquake
• Cognitive and Behavioral Therapy Association-1998-2003
  Certificate of Completion

• XI. National Psychology Congress-2000
  Poster Presentation-Resilience in Children

• V. National Psychological Counseling and Guidance-1999
  Paper presented on “Marital Satisfaction, Parental Agreement on Child
  Rearing and Parental Perception of Child’s Adjustment” (MS. Thesis).

• Turkish Psychological Association-1999
  Certificate of Attendance-Stress and Stress Management Training

• International Center for Positive Psychotherapy (ICPP)-1996
  Certificate of Attendance-Five day education

HOBBIES

Movies, Music, Reading