

PERCEIVED SOCIAL SUPPORT, ACADEMIC SELF-EFFICACY AND
DEMOGRAPHIC CHARACTERISTICS AS PREDICTORS OF PERCEIVED
STRESS AMONG TURKISH GRADUATE STUDENTS IN THE USA

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ABSTRACT

PERCEIVED SOCIAL SUPPORT, ACADEMIC SELF-EFFICACY AND DEMOGRAPHIC CHARACTERISTICS AS PREDICTORS OF PERCEIVED STRESS AMONG TURKISH GRADUATE STUDENTS IN THE USA

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The purpose of the present study is to examine the perceived stress of Turkish graduate students in the U.S.A., based on Cognitive Appraisal Theory of Stress, by looking at their perceived social support, academic self-efficacy, length of residence in the United States, gender, age, status in the degree of study, sponsorship, perceived income, previous travel experience, TOEFL scores, and perceived English proficiency. The participants of the study were 276 Turkish graduate students attending colleges and universities in the United States. Four instruments - the demographic information form, the perceived stress scale, the multidimensional scale of perceived social support, and the academic self-efficacy scale - were used.

Results showed that predictors explained 38% of the total variance. Among all of the predictors, gender, perceived income and academic self-efficacy significantly contribute to the model. When individual contributions to the predictors were examined, academic self-efficacy was the strongest predictor of the

perceived stress. Since academic self-efficacy is the strongest predictor of perceived stress, a multiple regression analysis was conducted to show which variables predict the academic self-efficacy. Gender, perceived income, English proficiency, and social support significantly explain the academic self-efficacy.

There were not any significant differences between groups' perceived stress scores according to marital status, department type, degree of study and living conditions. The only significant group difference was between students who were working and not working.

Keywords: Perceived stress, Academic self-efficacy, Turkish graduate students in the USA

ÖZ

AMERİKA BİRLEŞİK DEVLETLERİNDE LİSANSÜSTÜ EĞİTİM YAPAN TÜRK ÖĞRENCİLERİN ALGILANAN STRES DÜZEYİNİ YORDAYICI DEĞİŞKENLERİN İNCELENMESİ

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Bu çalışmanın amacı Amerika Birleşik Devletleri'nde lisansüstü öğrenim görmekte olan Türk öğrencilerin algılanan stres düzeylerini Stresin Bilişsel Değerlendirmesi Kuramı'na göre incelemektir. Çalışmada şu değişkenler sınanmıştır: algılanan sosyal destek, akademik öz-yeterlik, Amerika'da geçirilen süre, yaş, programda bulunulan aşama, eğitimin maddi destek kaynağı (sponsor), algılanan gelir düzeyi, geçmiş yolculuk deneyimi, TOEFL puanı, ve algılanan İngilizce yeterliği. Araştırmanın örneklemi Amerika'da öğrenim gören 276 Türk öğrencidir. Veriler, Demografik Bilgi Formu, Algılanan Stres Ölçeği, Çok Yönlü Algılanan Sosyal Destek Ölçeği ve Akademik Öz-Yeterlik Ölçeği kullanılarak toplanmıştır.

İlk sonuçlar, algılanan stresi cinsiyet, gelir düzeyi ve akademik öz-yeterliğin anlamlı şekilde yordadığını göstermiştir. Değişkenler, toplam varyansın %38'ini açıklamaktadır. Modele giren bu değişkenlerin tek tek katkıları incelendiğinde ise modele en anlamlı katkıyı akademik öz-yeterliğin yaptığı görülmüştür. Modele en çok katkı sağlayan değişken olduğu için, ayrı bir çoklu regresyon analizi ile akademik öz-yeterliği açıklayan değişkenler incelenmiştir. Cinsiyet, gelir düzeyi, İngilizce yeterlik ve sosyal desteğin, akademik öz-yeterliği anlamlı şekilde açıkladığı görülmüştür.

Gruplar arası farklar incelendiğinde öğrencilerin algılanan stres düzeylerinin evlilik durumu, bölüm, devam ettiği eğitim düzeyi ve yaşanılan yere göre fark göstermediği bulunmuştur. Gruplar arası tek anlamlı fark çalışan öğrenciler ile çalışmayan öğrenciler arasındadır.

Anahtar Kelimeler: Algılanan stres, Akademik öz-yeterlik, Amerika Birleşik Devletleri'ndeki Türk öğrenciler

To my precious son,

Burak Acar

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TABLE OF CONTENTS

PLAGIARISM.....	iii
ABSTRACT.....	iv
ÖZ.....	vi
DEDICATION.....	viii
ACKNOWLEDGMENTS.....	ix
TABLE OF CONTENTS.....	x
LIST OF TABLES.....	xiii
LIST OF FIGURES.....	xv
CHAPTER	
1. INTRODUCTION	
1.1. Background of the Study	1
1.2. Purpose of the Study.....	5
1.3. Research Questions.....	5
1.4. Significance of the Study.....	6
1.5. Definitions of the Terms.....	8
1.6. Limitations of the Study.....	8
2. REVIEW OF THE LITERATURE.....	10
2.1. Cognitive Appraisal Theory of Stress.....	10
2.2. Stress and Self-Efficacy.....	27
2.3. Stress and Social Support.....	32
2.4. International Graduate Student Stress.....	38
3. METHOD.....	45
3.1. Participants.....	45

3.2. Data Collection Instruments.....	47
3.2.1. Demographic Information Form.....	47
3.2.2. Perceived Stress Scale-10 item version (PSS-10).....	47
3.3.2.1. Validity and Reliability Studies of the PSS-10 for the Present Study.....	48
3.2.3. Multidimensional Scale of Perceived Social Support (MSPSS).....	51
3.3.3.1. Validity and Reliability Studies of MSPSS for the Present Study.....	53
3.2.4. Academic Self-Efficacy Scale (ASES).....	55
3.3.4.1. Validity and Reliability Studies of the ASES for the Present Study.....	56
3.3. Data Collection Procedure.....	58
3.4. Analysis of Data.....	59
4. RESULTS.....	65
4.1. Descriptive Statistics.....	65
4.2. Correlation Matrix of the Variables.....	66
4.3. Multiple Regression Analysis.....	68
4.3.1. Assumptions of the Multiple Regression Analysis.....	68
4.3.2. Results of the Multiple Regression Analysis.....	69
4.3.3. Multiple Regression Analysis of Academic Self Efficacy.....	71
4.4. Group Comparisons of the Perceived Stress.....	72
4.5. The Fit Statistics of the Path Model.....	72
5. DISCUSSION.....	74
5.1. Discussion of Findings.....	74

5.2. Implications for Practice.....	81
5.3. Recommendations for Further Research.....	84
REFERENCES.....	86
APPENDICES	
A. PATH DIAGRAMS FOR QUESTIONNAIRES.....	105
B. DEMOGRAPHIC INFORMATION FORM.....	114
C. PERCEIVED STRESS SCALE.....	116
D. PERCEIVED SOCIAL SUPPORT SCALE.....	118
E. ACADEMIC SELF-EFFIACY SCALE.....	120
F. TÜRKÇE ÖZET.....	121
G. CURRICULUM VITAE.....	145

LIST OF TABLES

TABLES

Table 1 Factor Loading and Communalities of the Factor Analysis of Perceived Stress Scale-10.....	49
Table 2 Fit Values for Two-Factor Model of Perceived Stress Scale-10.....	50
Table 3 Item-Total Correlations of Perceived Stress Scale-10.....	51
Table 4 Factor Loading and Communalities of the Factor Analysis of Multidimensional Scale of Perceived Social Support.....	53
Table 5 Fit Values for Three-Factor Model of Multidimensional Scale of Perceived Social Support.....	54
Table 6 Item-Total Correlations of the Multidimensional Scale of Perceived Social Support.....	55
Table 7 Factor Loading and Communalities of the Factor Analysis of Academic Self-Efficacy Scale.....	56
Table 8 Fit Values for One-Factor Model of Academic Self-Efficacy Scale.....	57
Table 9 Item-Total Correlations of Academic Self-Efficacy Scale.....	58
Table 10 Descriptive Statistics of the Variables of the Study.....	65
Table 11 Pearson correlation coefficients between dependent and independent variables.....	67
Table 12 Summary of Multiple Regression Analysis for Variables Predicting Perceived Stress.....	69
Table 13 Summary of Forward Regression Analysis for Variables Predicting Perceived Stress.....	70

Table 14 Multiple Regression Analysis for Variables Predicting Academic Self- efficacy	71
Table 15 Fit Values for the Model.....	73

LIST OF FIGURES

FIGURES

Figure 1 Estimates for Perceived Stress Scale-10.....	105
Figure 2 Standardized Solutions for Perceived Stress Scale-10.....	106
Figure 3 t-values for Perceived Stress Scale-10.....	107
Figure 4 Estimates for Multidimensional Scale of Perceived Social Support.....	108
Figure 5 Standardized Solutions for Multidimensional Scale of Perceived Social Support.....	109
Figure 6 t-values for Multidimensional Scale of Perceived Social Support.....	110
Figure 7 Estimates for Academic Self-Efficacy Scale.....	111
Figure 8 Standardized Solutions for Academic Self-Efficacy Scale.....	112
Figure 9 t-values for Academic Self-Efficacy Scale.....	113

CHAPTER I

INTRODUCTION

1.1. Background to the Study

The development of communication and transportation technology and widespread population migrations across national borders have caused societies to become culturally more and more diverse in today's world. Students are especially adept at assimilating from one culture to another. As there are many Turkish students who study abroad, these students have become accustomed to adjusting to a variety of cultures and languages. According to the Ministry of National Education's statistics for the year of 2011, 1121 out of 1721 officially sponsored Turkish students continued their education in the United States. Additionally, 1151 out of 3544 students who paid their own expenses chose the United States for their graduate education (General Directorate for Higher Education, 2011). The U.S. Institute of International Education's *Open Doors 2009 Report* on international educational exchange also indicated that the number of students from Turkey studying in the United States increased by 10%, while total foreign student numbers increased by only 8%. In 2009, Turkey was in eighth place among the top 25 countries with foreign students enrolled in colleges and universities in the United States (The U.S. Institute of International Education, 2009/10). Although there was a 1.7% decrease in the number of Turkish students in the United States in 2011, Turkey is still in tenth place among the top 25 countries (The U.S. Institute of International Education, 2010/11).

International graduate students are faced with many stressful life events during their educational tenures. They have to get used to the academic demands of

graduate school as well as the social demands of their new environments, which may be very different from their home countries. Some of them are away from their countries for the first time, some of them have language difficulties, and some feel a lack of social support in the host country. All these changes converging on top of academic pressures may cause excessive stress, which can lead to problems, such as academic failure, illness, and suicidal behaviors (Monk & Mahmood, 1999).

According to Lazarus and Folkman (1984), there are individual and situational factors that may influence people's reactions to stressful circumstances. Individual factors are commitments and self-efficacy. Commitment refers to how much an aspect is valued by a person. The degree of commitment is important to stress levels. Higher degrees of commitment can both facilitate and hinder stress. Higher degrees of commitment may increase stress, because the possibility of psychological harm from an undesired circumstance also increases. On the other hand, it may also decrease stress, because it causes a person to put forth greater effort when facing difficulties.

Self-efficacy is people's feelings about their mastery when they experience a threat or difficulty. If people believe that their skills are sufficient to cope with difficulties, they think that they can manage the situation. Therefore, they judge the situation less stressful (Lazarus & Folkman, 1984). In academic settings, the focus of the study should be on academic self-efficacy rather than generalized self-efficacy (Zajacova, Lynch, & Espenshade, 2005; Zimmerman, 2000). Academic self-efficacy is a person's beliefs about how successfully he or she can perform a given academic task (Schunk, 1991). Chemers, Hu, and Garcia (2001) found that academic self-efficacy showed a significant and direct relationship with academic

performance and academic expectations as well as an indirect relationship with stress, health, overall satisfaction, and commitment to remain in school.

Situational factors are novelty, temporal factors, ambiguity, and the timing of stressful events in the life cycle. Although people do not have previous experiences about a novel situation, they can learn from others' experiences. Thus, if others describe a situation as threatening, an individual may also perceive the situation as threatening, although he or she has not experienced the same circumstance before. Sometimes novelty itself causes stress because people are not sure if their previous coping skills work with their new situations (Lazarus & Folkman, 1984).

Temporal factors refer to the time elapsed before the event or while the event is occurring. If there are indications that a threat exists, longer time intervals before the event cause higher stress than shorter time intervals. On the other hand, sometimes longer time intervals give people the opportunity to develop appropriate coping skills, so that less stress occurs. Longer exposure to the stressor may cause habituation and provide people with opportunities to develop coping skills. At that point, extending the time that elapses during the event decreases stressful reactions (Lazarus & Folkman, 1984).

The third situational factor is ambiguity, which is a lack of situational clarity. If people have less information about a situation, they perceive it as ambiguous and, consequently, stressful. On the other hand, although they have enough information about a situation, they might still perceive the situation as stressful because of the uncertainty of the values, goals, and commitments that conflict with the environment. If they are confident, they do not perceive the situation as stressful, even if it is ambiguous (Lazarus & Folkman, 1984).

Finally, the timing of stressful life events in the life cycle also influences people's perceptions about the event. The meaning of an event is related to other things that are going on in people's lives (Brown & Harris, 1978). If an event deviates from the normal life cycle, it causes stress. Lazarus and Folkman (1984) offered three explanations of how the timing of events causes stress. First, if an event occurs too early or too late, one cannot find enough social support in society. Second, deviation from the regular succession of events (such as delays) decreases the satisfaction that would come with the event. Third, if an event occurs too early, it lessens the probability of having new roles in the future.

There are also moderating factors which influence people's perceptions of stressful events. Social support is one of them. According to Merton (1957), societies have certain expectations. Conflict occurs when an individual cannot meet those expectations. Different social systems demand different things from individuals, and individuals have different resources to meet those demands (Lazarus & Folkman, 1984). According to Lazarus and Folkman, social support acts as a barrier to stress by providing enough resources to cope with the negative results of stressful events. If other things are equal, people have better morale and health - function better when they believe that they will receive social support whenever they need it.

Different groups have different stressors. International graduate students also have their unique stressors that are different from other populations. According to Lazarus and Folkman (1984), immigrating to a new country may cause stress because the new environment makes new demands on the individual. Those new demands may cause conflict for the individual. They have to meet both academic

demands of the graduate school and social demands of their new environment. They may also have language difficulties that can affect their relationships with their professors and peers as well decrease their academic success. Some of them are away from their home countries for the first time. If they do not have supportive persons around them, lack of social support may also increase their stress level.

Based on the Cognitive Appraisal Theory of Stress, this study expects to extend the literature by examining the predictors of Turkish graduate students' perceived stress from a broader perspective. The variables of the study that are examined as possible predictors of stress are mentioned as the main reasons of international students' stress in a foreign culture. Thus, this study will provide a framework for understanding the perceived stress of Turkish graduate students in the United States.

1.2. Purpose of the Study

The main purpose of this study is to examine the perceived stress of Turkish graduate students in the U.S.A., based on the *Cognitive Appraisal Theory of Stress*, by looking at their perceived social support, academic self-efficacy, length of residence in the United States, gender, age, status in the degree of study, sponsorship, perceived income, previous travel experience, TOEFL score, and perceived English proficiency. In addition, this study aims to examine group differences between Turkish graduate students' perceived stress scores according to marital status, department type, degree of study, employment situation, and living conditions.

1.3. Research Questions

The following research questions were investigated for the purpose of the study:

1. Do academic self-efficacy, perceived social support from family, perceived social support from friends, perceived social support from significant other, length of residence in the U.S., age, gender, status in the degree of study, sponsorship, perceived income, previous travel experience, TOEFL score, and perceived English proficiency explain the perceived stress of Turkish graduate students in the United States?
 - 1.1. What are the individual contributions of each significant predictor of the perceived stress of Turkish graduate students in the United States?
 - 1.2. As the strongest predictor of the perceived stress of Turkish graduate students in the United States, do perceived social support, status in the degree of study, gender, sponsor, perceived income, and English proficiency predict the academic self-efficacy of Turkish graduate students in the United States?
2. Is there any significant difference between students' perceived helplessness and perceived self-efficacy scores from the perceived stress scale with respect to marital status, department type, degree of study, employment situation, and living conditions?

1.4. Significance of the Study

Stress is one of the most important distinctive factors for students' well-being and academic success. According to the results of the National College Health Assessment, university students reported stress as the biggest obstacle to their academic success (American College Health Association, 2007). Graduate students have their own unique stressors, such as adjustment issues, multiple social roles,

financial difficulties, relationships with professors, increased work load, and family relationships (Home, 1997; Kiviniemi, Snyder, & Omoto, 2002; Mallinckrodt & Leong, 1992; Poyrazli & Kavanaugh, 2006; Ross, Niebling, & Heckert, 1999).

Although there are studies about Turkish students in the United States, the number of studies related to the perceived stress of the Turkish graduate students in this country is limited. A single study, of course, cannot explain all aspects of the perceived stress. However, it can make meaningful contributions to the literature by examining predictors of perceived stress for Turkish graduate students in the United States. This study examined the perceived stress from a broad perspective by including both personal and situational factors as predictors of stress. This study examines if a model based on Cognitive Appraisal Theory of Stress can explain the perceived stress of this population. Thus further studies can contribute to the literature by using this model for their perceived stress studies with similar populations.

Knowing which factors predict the perceived stress levels of Turkish graduate students in the U.S. may prevent potential problems before they occur. This study helps to identify the counseling issues of Turkish individuals who need to get integrated into other cultures and the personal requirements for successful adjustment. The identification of problems paves the way for the solutions which professionals might apply. Therefore, this study might function as a needs analysis of the target population. Based on the results of the study, developmental programs for minimizing stress can be prepared in order to reduce the severity of frequently experienced problems. Given the group differences reported in this study, it would be more effective to offer different programs tailored to the needs of different

groups. For example, the needs of the master's students are usually different from doctoral students and so should the programs. Customized programs rather than the generic ones would be more sensitive to the needs of the target groups. Recognizing the needs of the specific groups would provide counselors with basic information for developing orientation and preventive counseling activities.

1.5. Definitions of Terms

Perceived Stress: If people think that the demands of the environment exceed their resources, they appraise the situation as stressful (Lazarus & Folkman, 1984). Thus, a situation can be stressful for one but not for another.

Perceived Social Support: The kind of support in which a person believes someone to be available to him or her should he or she needs assistance (Sarason, Sarason, & Pierce, 1990).

Academic Self-Efficacy: Academic self-efficacy is one's beliefs about what he or she can successfully carry out given an academic task (Schunk, 1991).

1.6. Limitations of the Study

This study has some limitations which should be considered when interpreting the results. First, the sampling procedure is not random. Thus, the generalizability of the results is limited. The second limitation is related to the data collection procedure. Because the data were collected through the internet, the participants' attitudes could not be observed while they filled out the scales. Also, only internet users were available for participation in the study. However, when characteristics of the sample were considered, one could conclude that all of the participants might well be internet users. The data collection procedure also had an advantage. Because data were not collected face-to-face, only participants who were

totally willing to participate in the study completed the questionnaire. Another limitation is related to the selected variables that represent the components of the Cognitive Appraisal Theory of Stress. Thus the results are only limited to those variables.

CHAPTER II

REVIEW OF LITERATURE

In this chapter, literature related to the present study is summarized. The first section of the chapter presents Cognitive Appraisal Theory of Stress. The second section discusses the relationship between stress and self-efficacy. The third section gives information about the relationship between stress and social support. In the last section, studies related to the stress of international graduate students are summarized.

2.1. Cognitive Appraisal Theory of Stress

After the first usage of *stress* as a psychological term in *Psychological Abstracts* in 1944 (Jones, Bright, & Clow, 2001), psychologists' attention to this term increased rapidly. When researchers searched for the psychological explanations of illnesses, people's thoughts, emotions, and motives were also considered as causes of illnesses. Therefore, stress became one of the most common topics of psychological research as well as biological and sociological studies (Cooper & Dewe, 2004).

The psychosomatic tradition focused on the relationship between stressful life events and physical and psychiatric illnesses. The stressful life event (stimuli) stimulates the emotions and causes changes in physiological processes (Dohrenwend & Dohrenwend, 1974). Pearlin and Lieberman (1979) classified life events into two categories: normative events, which are expected and regular in one's life, such as marriage or retirement; and nonnormative events, which are not predictable, such as the death of a spouse or losing a job. Wolff (1949) argued that people's interpretations of a life event as threatening influence their psychological health.

Such events cause anxiety and stress, so the body needs to formulate a reaction to maintain stability. The influence of a stressful life event on one's body is affected by its significance to that person. Cohen, Kamarck and Mermelstein (1983) summarized the advantages of measuring stressful life events. First, it helps to identify some events which cause risks for diseases. Second, assessment of stress is made easier by measuring the life events. Third, this technique decreases the chance of subjective bias.

On the other hand, the most profound criticism of the theory of stressful life events comes about because of its emphasis on objective life events rather than on their interpretations (Lazarus, DeLongis, Folkman, & Gruen, 1985). According to Lazarus et al. (1985), a person's appraisal of the events is more important than the objective presence of the event. Lazarus (1993; 1998a) mentioned that psychology mostly focused on the stimulus-response model (S-R), which is the basis of the idea that science develops general laws. But after a new look - the stimulus-organism-response (S-O-R) - became popular, so individual differences gained importance when researchers interpreted the responses to the stimulus. People's attitudes, beliefs, and expectations change their reactions toward a given stimulus, and these reactions vary from person to person. Thus, a more subjective view of human behaviors was offered.

Lazarus (1998b) criticized the tendency to view stress as a one-dimensional concept. According to one-dimensional views, people rate themselves on a scale that shows little stress on one side of the continuum and high stress on the other side. He argued that this is a reductionist view and that what is happening to people is a more complex process which changes from person to person. Psychological stress is a

complex relationship between people and the environment. Thus, the subjectivity of people's experiences is very important.

According to Lazarus (1999), there are four essential factors that influence stress: demands, constraints, opportunities, and culture. Demands are implicit or explicit pressures from society. Demands require that people behave in a socially acceptable way. If the demands of the environment exceed the person's resources, these demands are viewed as stressful. Constraints are different from demands because they include the threat of punishment. Individuals should not do something because of punishment. Opportunities are useful only when people recognize them and take advantage of them at the right time. Finally, one's culture is important because characteristics of the culture influence people's judgments. One example of the importance of culture might be that although academic stressors are common between American and international students, international students' perceptions toward academic stress and their coping strategies might be different than those of American students (Misra & Castillo, 2004).

Individual differences explain how people give meaning to what is happening. Situations have subject definitions which change from person to person, so a given situation may be perceived as stressful by one person but not stressful by another. To perceive an event as stressful, an individual must see it as threatening, and his or her personal resources should be insufficient to cope with this event. Thus, stress is based on not only the existence of the event but also other personal and situational factors (Lazarus, 1974). If events are judged as undesirable, they produce stress. If people feel unable to fulfill the needs of the new situation, the situation is evaluated as stressful. Thus, it is not the event itself, but the consequences that cause stress.

New situations create new requirements for people. These requirements may be obligations, expectations, adaptation to new situations, new role definitions, or redefinitions of old roles. If people cannot fulfill these requirements, they suffer because of a sense of failure, so they experience stress. From this point of view, a positive event can also cause stress if it is judged as undesirable by the person. There are three sets of circumstances in which an event may be judged as stressful: if it is seen as undesirable, if it requires new obligations or expectations, and if people believe that they are not capable enough to fulfill the requirements of the event (Kaplan, 1980).

Since 1960, Lazarus and his colleagues have studied people's cognitive appraisals of stressful events. Lazarus and Folkman's (1984) transactional model of stress aimed to conceptualize the complex relationship between individual and environment with the help of internal and external factors. People continually reevaluate the demands of society and their own resources to cope with those demands. This evaluative process influences people's emotions toward a given situation as well as their adaptational conclusions. Lazarus and Folkman (1984) pointed out the importance of appraisal for understanding stress. Individuals may react differently to a certain situation. To understand personal differences under the same circumstances, cognitive processes must be understood. Of course, some of the individual differences are the results of actual environmental differences, but psychological situations which are the product of the interaction between personal and environmental factors are vital to understand variations among individuals under same conditions. Thus "cognitive appraisal refers to evaluative cognitive processes that intervene between the encounter and the reaction" (p. 52).

There are three kinds of cognitive appraisals. Primary appraisal occurs when people first face the stimulus. They tend to judge the stimulus as irrelevant, positive, or stressful. If it is irrelevant, people ignore it because it does not have any personal meaning for them. If it is positive, it becomes a desirable thing. However, if it is judged as stressful, people think that it causes harm, loss, or threat. Stress appraisal has three forms. Harm or loss refers to the impairment that people have already suffered. Threat refers to the expected damages. Even if damage has not occurred yet, people think about its negative inferences in the future. Challenge implies the events that involve opportunities for mastery and benefits. Threats and challenges occur simultaneously, and although they are sometimes related, they must be taken into account as independent forms. Secondary appraisal refers to persons' judgments about their own coping resources. They evaluate whether their resources are sufficient to cope with the stressful stimulus, in other words, whether they are capable of coping with the threat (Coyne & Lazarus, 1980). This appraisal is also related to Bandura's (1977) concept of efficacy expectations, which refers to people's confidence about their behaviors, talents etc. to accomplish a desired outcome.

Different researchers discussed different factors which influence people's judgments of events as being stressful or not. For instance, some researchers pointed out the differences between gender and age groups in terms of perceived stress. Women stated higher stress than men, and younger people stated higher stress than older people (Cohen & Williamson, 1988; Hall, Chipperfield, Perry, Ruthig, & Goetz, 2006; Hamarat et al., 2001; Hudd et al., 2000). Contrary to these studies, Richards (2008) surveyed college students in New Zealand and did not find any

differences in terms of age and ethnicity. Pfister (2004) also studied the perceived stress of college student athletes and did not find any gender or race differences.

Lazarus and Folkman (1984) have provided one of the most detailed explanations regarding how people perceive an event as stressful or not. They discussed personal and situational factors that influence appraisal. Although they examined these two factors separately, they also focused on their interdependency. Personal factors are commitments and beliefs. Situational factors are novelty, temporal factors, ambiguity and uncertainty, and the timing of stressful events in relation to the life cycle.

The first personal factor is *commitment*. Commitments refer to the important and meaningful things that encourage people when they encounter a stressful situation. They motivate people to achieve desired goals. Lazarus and Folkman's (1984) concept of commitment includes cognitive components that are choices, values, or goals. They used the concept of commitment rather than other similar concepts such as drive, motive and intention because they wanted to focus on the cognitive and social processes not the motivational roles of the commitments.

People are more committed to some things than to others. Although Lazarus and Folkman (1984) pointed out the difficulty in assessing commitment as a cognitive construct, they stated that the degree of commitment is important for the assessment of stress. Commitments direct people to decide whether they should face or avoid situations based on their possible benefits and harms. For instance if a child cares about peer acceptance, he or she behaves to please his or her friends and avoids those whom the friends dislike. A given situation is evaluated as more stressful by one person but less stressful by another based on the extent to which it is

valued. When commitment increases, the possibility of psychological harm from the situation also increases. On the other hand, commitment may also decrease the threat, because higher commitment may cause a person to make a greater effort to face the difficulties (Lazarus & Folkman, 1984).

Recent studies also support Lazarus and Folkman's (1984) ideas about the relationship between stress and commitment. Kim et al. (2010) examined the levels of job stress and psychosocial stress among emergency physicians and the relationship between stress and occupational commitment. Commitment was measured by asking plans for their remaining years in the specialty. They compared academic emergency physicians and clinical emergency physicians. Results showed that job stress and psychosocial stress of clinical emergency physicians were lower and their commitment was also lower.

The relationship between commitment and stress is important because it has an influence on other variables such as depression level, job satisfaction and job turnover intention. Pengilly and Dowd's (2000) findings showed a moderating effect of commitment for the relationship between stress and depression. According to their results, high-stress low-commitment individuals had higher depression scores than low-stress, low-commitment individuals. On the other hand, high-commitment individuals had similar scores on depression regardless of their stress scores. Lu, Chang, and Wu (2007) found that professional commitment had an indirect effect on stress. They defined professional commitment as willingness to make an effort and willingness to maintain membership in an organization and belief in goals and values. According to their study, there is a positive relationship between commitment and job satisfaction which is negatively related to stress. Gaither (1999)

also concluded that the effects of job stress on job turnover intention were mediated by commitment.

However, there are contradictory studies in the literature about the role of commitment on the perception of stress. For instance, Cheng (2010) examined the relationship between professional commitment of elementary school teachers and their job stress through a sample of 359 elementary school teachers in Taiwan. Cheng found that although teachers' job stress significantly varied by highest education, position and experience of evaluation, there was no significant relationship between job stress and professional commitment.

Yeh (2008) studied the work stress, professional commitment and job satisfaction of a hundred nurse practitioners in Taiwan. Commitment was measured by asking professional values recognition, professional effort willingness, and professional career willingness. Results showed that there was no significant relationship between work stress and commitment.

King (2008) examined the relationship between 134 full-time nurses' affective commitment to their current job and two stress related variables: number of chronic stressors and intensity of stressors. Results indicated that affective commitment was negatively related to both of the stress variables.

The second personal factor is beliefs about personal control which is called as *self-efficacy*. The extent to which people feel mastery and confidence about their competence influences whether they evaluate a difficulty as a threat or a challenge. If they believe that they can affect what happens during a difficult situation and manage the relationship between themselves and this situation, they can develop coping strategies easily. Thus, they do not interpret the situation as stressful.

Bandura (1977) claimed that if people believe that their skills are not sufficient to cope with a threatening situation, they choose to avoid the situation, but if they believe that they can handle the situation, they get involved in the situation. If people judge their potential as adequate to control a threatening situation, they perceive the situation as less fearful, so the situation causes less stress. Self-efficacy also determines if people persist on a goal when they face difficulties.

Recent studies also support the stress and self-efficacy relationship. According to Solberg and Villarreal (1997) self-efficacy beliefs are strongly related to perceived stress and determine people's opinions about a difficulty. They reported a significant negative correlation between academic self-efficacy and stress among Latino college students. Solberg et al. (1998) examined the relationship between self-efficacy and stress in the academic settings. If students found academic tasks as difficult, higher self-efficacy protect them from higher stress. They perceived those tasks as challenging rather than threat. Thus, in their study they linked stress to self-efficacy and focused on the importance of increasing self-efficacy in stress-management programs. According to their results, the combination of self-efficacy and stress directly affects health.

Torres and Solberg (2001) tested a path model with a sample of 179 Latino college students in the United States. There are four constructs in the model that may predict health: stress, self-efficacy, family support and social integration. Self-efficacy was measured by the "College Self-Efficacy Inventory," which asked about students' level of confidence in their performance in different academic tasks. Stress was measured by "The College Stress Inventory," which was developed specifically

for measuring academic stress. The model showed a negative correlation between self-efficacy and stress ($-.22$).

Klassen, Foster, Rajani, and Bowman (2009) examined teachers' job beliefs in northern Canada with a mixed-method study. They measured the teachers' self and collective efficacy and their overall stress as well as their workload stress and stress from students' behavior. Bivariate correlations showed that teachers' self-efficacy negatively correlated to workload stress and stress from students' behavior. Teachers' collective efficacy also negatively correlated to workload stress and stress from students' behavior.

Although many studies support Lazarus and Folkman's ideas, there are still some studies that have opposite findings. Dwyer and Cummings (2007) examined the relationship of self-efficacy, social support, coping strategies and stress in terms of the Lazarus and Folkman's (1984) transactional model of stress. Based on the theory, the study hypothesized that stressful daily events may influence people's physical and mental health more than major life events. Sample of the study were 75 university students with a mean age of 29. Stress was measured by an inventory that asked the effects of everyday stressors on the physical and mental health of university students specifically. Self-efficacy was measured by a scale that asked people's expectations about their performances in different challenging situations. Contrary to the common findings of other studies, this study did not find a relationship between self-efficacy and stress.

According to Lazarus (1999), personal factors must be examined in the context of situational factors. Thus, sometimes situational factors are more important than personal factors. As discussed above, the stressfulness of an event is

determined by the individual's appraisal of his or her relationship with the environment. Situational factors are *novelty*, *temporal factors*, *ambiguity* and *uncertainty*, and *the timing of stressful events in relation to the life cycle*.

Novel situations are situations that we do not have any previous experience of. Finding ourselves in novel situations is unavoidable. If people do not have any direct or indirect experience of a situation, they do not judge it as threatening. A situation is judged as stressful only if people have previous experience of its danger. However, for adults it is unlikely for a situation to be completely novel. Learning has an influence on people's judgments of situations. Even if people do not experience a situation individually, they can learn from others' experiences, from books, news etc., so they can infer the meaning of a situation easily. Since absolute novelty is almost impossible, novelty which affects people's appraisal is examined as a relative concept rather than an absolute property (Lazarus & Folkman, 1984).

Hulsman et al. (2010) focused on the impact of novelty and habituation on the perception of physiological and psychological stress of medical students in doctor-patient communication. They claimed that first confrontation with a threat/challenge is more stressful than follow-up confrontations with the same situation. Thus, they controlled the confounding effects of novelty and habituation in the study. Results showed that if a situation is presented as a first consultation (novelty) it causes more stress than when presented as a second consultation (habituation).

In addition, Thatcher and Day's (2008) study's participants defined novelty as a frequent stressor. But participants' perception of novelty in their study was different from that in Lazarus and Folkman's (1984) absolute novelty definition. It is

a change in a common situation or something that has not been experienced before. Thus, they suggested broadening the concept of novelty to mean different or unusual.

Lazarus and Folkman (1984) also discussed that sometimes novelty itself can be perceived as a threat because it is ambiguous and uncertain. Uncertainty causes stress because people are not sure whether their old coping strategies will be useful for the new situation. Thus they do not know how to cope with the threat. In novel situations, people do not have clear inferences about the conclusion or importance of the situation. Hence, they make inferences about the situation. There is a negative relationship between novelty and inferences. If the situation is almost novel, that is, people have less information about it, more inference required. More inference causes more error in interpretation. Awareness of the error and ambiguity causes higher stress. General knowledge about the situation is not still sufficient to decrease the threat, because it does not mean that the person is also aware of having the appropriate coping skills. Thus although people have some knowledge about new situations, novelty is critical for using coping skills which directly affect appraisals.

Lack of situational clarity—ambiguity and uncertainty—can affect people's judgments of situations as stressful or not. When people face a new situation, they prefer to have information about the environment. If this information is unclear or insufficient, people do not feel confident about the environment. Ambiguity reduces the sense of having control over the environment and increases the sense of helplessness. People want to have knowledge about what will happen, the probability of the event, when it will happen, and how long it will last. If people do not have enough information about these variables, they cannot predict what will be

expected from them. Ambiguity causes stress, because it threatens people's sense of control over a situation, so increases sense of helplessness. Whenever people are confronted with an ambiguous situation, they try to gain as much as information as they can to have more control of the situation and to use appropriate coping skills when they are needed. If the situation is ambiguous, people have to think about many possible outcomes. They think about first possible outcome and their own reactions toward this outcome, and then they think the second one and their reactions and so on. This ambiguity causes mental confusion which triggers excessive worrying and anxiety (Lazarus & Folkman, 1984).

Uncertainty is people's confusion about the meaning of the situation. Ambiguity and uncertainty are interrelated but different concepts. Sometimes although there is enough information about the situation (unambiguity), people still feel uncertain because of values, goals, or commitments that conflict with the environment. On the other hand, if people feel confident about what to do, they do not judge the situation as stressful even though it is ambiguous. In other words, if they are certain about what to do, they believe that they can cope with ambiguity. Thus they perceive the situation less stressful (Lazarus & Folkman, 1984). In Thatcher and Day's (2008) study, participants focused on the subjective views of uncertainty rather than its objective definitions. These subjective perceptions mostly based on the previous experiences. If they had an uncertain experience in the past, the probability of uncertainty caused more stress. They reported that they felt the most stress when they were more uncertain about which result would be happening.

Lee, Lee, Oh, and Kim (2009) examined the relationship among stress, uncertainty and quality of life of spouses of women with breast cancer in Korea.

They measured variables by using self-report questionnaires. Results showed that there was a significant relationship among quality of life, stress and uncertainty. Also, stress, uncertainty and cancer treatment together affected spouses' quality of life.

Bovier and Perneger (2007) examined the physicians' stress due to uncertainty of event. They worked with 1,994 physicians in Switzerland. Reactions to medical care uncertainty were measured by "Anxiety due to Uncertainty and Concern about Bad Outcomes" scales. According to the results of the study, women physicians had greater stress/anxiety due to uncertainty. Also physicians in early stages of their careers had higher anxiety scores because of the uncertainty. Anxiety due to uncertainty also significantly affects physicians' job satisfaction.

Ciairano, Menna, Molinar, and Sestito (2009) discussed the relationship between perceived stress and coping strategies in times of uncertainty. They agreed on adolescents in most industrialized countries faced with uncertainties about their future education, jobs and career. Participants of the study were 916 Italian adolescents, ages from 11 to 20. They measured stress with "Problem Questionnaire" that asked typical and salient everyday stressors. When it was compared with other problems (school-related stress, parents-related stress, peers-related stress, leisure time related stress, opposite sex related stress, and self-related stress) uncertainty, which is defined as future-related stress, perceived significantly the highest stressor. It is also higher for girls than boys.

Lazarus and Folkman (1984) also discussed the difference between laboratory environment and real life settings in terms of ambiguity and uncertainty. Effects of uncertainty on stress are more severe in the real life conditions than the

laboratory conditions. In the laboratory experiments, participants know that they are a part of an experiment. Because of ethical reasons, they know, more or less, something about the purpose and the content of the experiment. Some of the participants, such as psychology students, also know that ethical reasons limit the degree of harm. In addition, in laboratory experiments, researcher focused on the degree of stress rather than the coping mechanisms which are used by participants. In real life settings, events are more complicated than laboratory settings. There are more aspects to cause uncertainty that have to be considered. In experiments, researchers can control or other variables, but in real environments there are many other factors which affect the situation. Last but not least, real life events are more meaningful than laboratory experiments. Even very small uncertainty, which does not have any influence in laboratory, may destroy well being in real life.

Temporal factors are also effective on people's appraisals. The amount of time that passes before an event occurs influences people's judgments about it. If there are indications that a threat exists and longer time intervals before an event occurs, the event causes higher stress than shorter time intervals. But if there are no indications of threat or harm, the time elapsed before the event itself does not lead to stress. On the other hand, if an increase in the amount of time helps people to think about possible coping strategies, it can decrease the stress (Lazarus & Folkman, 1984).

Eisler (2002) discussed that there are biological, psychological, and cultural considerations of people's perception of time. People's subjective view of universal objective time depends on their learning, cognitive ability, experience, physical and social environment, personality, and culture as well as the biological

time sense. Thus disruption of subjective view of time may cause many psychological problems. According to Thatcher and Day (2008), if the time to the specific event decreased, stress increased. This can be because after a certain amount of time, participants just wait for the event, so they only think about the event.

Not only the time elapsed before the event, but also time elapsed while the event is occurring (i.e. duration) influences people's judgments about whether the event is stressful or not. If an event took place over a longer period of time than usual, it causes more stress. Most of the participants reported this period stressful, because they did not like waiting and negative thinking about the results of the event would occur during this time (Thatcher & Day, 2008). Selye's (1983) General Adaptation Syndrome (GAS) discussed three stages of stress response. In the first stage, which is the initial alarm reaction, people are shocked because they have just noticed the threat. Physically, body temperature and blood pressure decrease. In the second phase of this stage, the body develops a countershock and adrenal cortical secretions and blood pressure increase. In the second stage, resistance to the stressor increases, but resistance to other stimuli decreases. Thus, people start to adapt to the stressful situation, but their resistance to some other situations decreases. Finally, if exposure to the stressful situation continues, another alarm reaction appears; this is called the exhaustion stage. On the other hand, according to Lazarus and Folkman (1984), constant exposure to stressor does not always result in the exhaustion stage. People usually get used to the situation, -habituation-, and stress reactions decrease. Habituation might occur because people learn to cope with stressful events. The persistence of the stressor gives people the opportunity to develop coping skills. People may learn the demands of the stressful situation or how to avoid it. As a

result people no longer judge the threat as stressful. Seiffge-Krenke, Aunola and Nurmi (2002) examined the developmental changes in stress perception and coping during adolescence with a longitudinal study. Their sample was 200 adolescents. They found that perceived stress decreased from early adolescence to late adolescence. On the other hand, using more active and internal coping strategies rather than withdrawal strategies increased by age.

Finally, a stressful event does not occur independently from the other events in one's life. Instead, it has a meaning in the life cycle of the person. The meaning of an event is related to other things that are going on people's lives (Brown & Harris, 1978). According to Neugarten (1979) people have specific expectations for specific ages during the life cycle. For instance, people plan when they will get married, graduate, have children, and retire. Events which are parallel with those expectations do not cause crises. But if any of these events deviate from the normal life cycle, such events cause stress in people's lives. From a developmental perspective, coping means how individuals interact with the demands of the environment during the life span (Lerner & Castellino, 2002). If the threat parallel with their development or common among the age group, people can develop more useful coping skills. For instance, when adolescence confronting with difficulties which were age specific, they mostly used active or internal coping skills. Active coping skills are seeking for support, discussing the problem with other etc. Internal coping skills are considering possible resources and alternative results. However, if the stressful event was not common in the life cycle, they mostly chose withdrawal coping skills (Garnefski, Legerstee, Kraaji, Van den Kommer, & Teerds, 2002; Seiffge-Krenke & Klessinger, 2000).

Lazarus and Folkman (1984) found three reasons that explain how the timing of events causes stress. First, if an event occurs too early or too late, one cannot find enough social support in society. Lazarus illustrated this situation with the pregnancy of a 38-year-old woman for her first child. This woman shares her experiences with other women who are also pregnant with their first child. However, those women are probably younger than she. Thus, she does not feel comfortable because of the lack of social support and for her the pregnancy process is more stressful than it is for the other women. Early maturing girls have more stress than their on-time maturing peers (Ge, Conger, & Elder, 1996). Second, being off time decreases the satisfaction that would come with the event. According to Lazarus and Folkman (1984) if a promotion which has been wanted for 10 years is given just before retirement, it might be judged as a problem with management rather than as a success. Third, if an event occurs too early, it lessens the probability of having new roles in the future. For instance, teenage pregnancy hinders women's future careers.

2.2. Stress and Self-Efficacy

Self-efficacy is a person's beliefs about his or her capacities which are essential to achieve a goal. People's beliefs about their capabilities predict how they will behave in a certain situation. People's opinions about their capabilities are more descriptive than their actual performance (Bandura, 1977; 1986).

People's beliefs about their capacities influence whether they judge a situation stressful or not. Self-efficacy is one of the most important factors which affect people's judgments about environmental issues (Lazarus & Folkman, 1984). Self-efficacy determines how much effort people will expend to achieve a goal and how resilient they will prove when confronting obstacles. In other words, the higher

the self-efficacy is, the greater the effort and resiliency are. People who have low self-efficacy perceive negative stimulus as a threat rather than a challenge (Lazarus & Folkman, 1984). People who have high self-efficacy can develop effective coping strategies when dealing with unpleasant things. Because of low self-efficacy, people may not develop alternative solutions to their problems, they may have stress and depression, and they may not have the willingness to face difficult tasks (Pajares, 1996b).

Jerusalem and Mittag (1997) examined the psycho-emotional and health-related adaptation processes of migrants in West Berlin. They focused on the relationship between self-efficacy and the stressful life event. Migrants with low self-efficacy perceived their environment more threatening than those with high self-efficacy. In addition, migrants who has low self-efficacy felt high anxious than those with high self-efficacy. When they compared self-efficacy, partnership and employment status as the moderators of stress, they found that self-efficacy was the only direct moderator. Although partnership and employment status were also personal risk conditions, they are not clear moderators of stress.

Although Bandura introduced the concept of general self-efficacy, he also focused on self-efficacy as a task-specific belief system (Bandura, 1977). According to Zimmerman (2000), self-efficacy changes according to the demands of domain; therefore, mathematics self-efficacy, reading self-efficacy, and social self-efficacy are different concepts. For instance, an individual may have higher mathematics self-efficacy, but lower social self-efficacy. Hackett (1985) pointed out that the mathematics self-efficacy of undergraduate students was related more to their

mathematics interest and choice of math-related course than to their prior math success and math outcome expectations.

Jex and Gudanowski (1992) pointed to the role of individual and collective self-efficacy on work stress. This study measured stress with 3 stressors and 4 strains and measured self-efficacy as individual efficacy and collective efficacy. Although their results showed that individual self-efficacy did not have a strong effect on stress, collective efficacy was strongly related to work stress.

Kim and Omizo (2005) examined the relationships between adherence to Asian and European American culture and self-esteem, acculturative stress, cognitive flexibility, and the collective self-efficacy of 156 Asian American college students. Results showed a relationship only between collective self-efficacy and adherence to Asian and European American culture.

Constantine, Okazaki, and Utsey (2004) investigated the relationship between self-concealment, and social self-efficacy skills of Asian, African, and Latin American international college students with acculturative stress. They found that if regional group membership, gender, and English language proficiency were controlled, self-concealment and social self-efficacy did not affect the acculturative stress of the students.

In academic settings, academic self-efficacy is more critical than generalized self-efficacy (Zajacova et al., 2005; Zimmerman, 2000). Results of Multon, Brown, and Lent's (1991) meta-analysis showed that in academic settings, specific academic self-efficacy is a better predictor of academic outcomes than is generalized self-efficacy. Academic self-efficacy is a person's beliefs about how successfully he or she can perform on a given academic task (Schunk, 1991). This term is especially

important and receiving increased attention in educational settings (Pajares, 1996a). Students' beliefs about mastering an academic activity determine their motivation and achievement (Bandura, 1993). In most studies, academic self-efficacy is one of the best predictors of academic success and higher GPA (Chemers et al., 2001; Elias & Loomis, 2000; Gore, 2006; Zajacova et al., 2005). Academic self-efficacy also improves confidence and the skills for connecting environment. Thus, students' participation in social activities and discussions with faculty also increases (Hamann, 1997).

Santiago and Einarson (1998) studied background characteristics as predictors of academic self-confidence and academic self-efficacy among 290 graduate science and engineering students. Gender was not found to be a significant predictor, but students' perceptions of academic preparedness, status-related disadvantages, and expectations about faculty and student interaction were significant predictors of academic self-confidence and academic self-efficacy.

Zajacova et al. (2005) investigated the effects of academic self-efficacy and perceived stress on the academic performance of 107 minority college freshmen. They measured academic performance by examining GPA, accumulated credits, and persistence in college. By using structural equation modeling, they found that academic self-efficacy had a strong positive effect on students' GPA and credits. On the other hand, stress had a negative but insignificant relationship to GPA and no relationship to college credits.

Chemers et al. (2001) conducted a longitudinal study to examine the effects of academic self-efficacy and optimism on 256 first-year university students' academic performance, stress, health and commitment to remain in school.

Academic self-efficacy showed a significant and direct relationship with academic performance and academic expectations and an indirect relationship with stress, health, overall satisfaction and commitment to remain in school.

Examining graduate students' academic self efficacy is very important for their future success. Some of these students return to university life many years after they finish their undergraduate education, so to overcome difficulties and achieve course goals may be more difficult for them. For that reason, it is important for graduate students to develop a positive sense of academic self-efficacy, which is the belief that they can accomplish their course and degree goals (Byer, 2002).

Byer (2002) identified factors related to graduate students' self-efficacy. All participants of the study were enrolled in the college of education of a small university in the United States. Byer (2002) conducted multiple correlations to determine the relationship between knowledge, critical thinking skills, professional skills, involvement, affiliation, absences and academic self-efficacy. All six predictors together explained 24% of academic self-efficacy. When the correlations between academic self-efficacy and each predictor were examined, it was revealed that all but one of the predictor variables (absences) was significantly correlated with academic self efficacy.

Feldman and Martinez-Pons (1995) investigated the relationship between graduate students' multiple role conflict, perceived ability to cope with multiple role conflict, subject anxiety, and academic self-efficacy. Participants of the study were 60 graduate students in an introductory graduate course in educational research. The study found significant correlations between these variables; however, when multiple role conflict was controlled, the effects of the perceived ability to cope with

multiple role conflict and subject anxiety on academic self-efficacy were meaningless.

2.3. Stress and Social Support

People live in a social system. They are influenced by society and also affect it (Lazarus & Folkman, 1984). According to Merton (1957) societies have certain expectations and conflict occurs when an individual cannot meet those expectations. Such a conflict causes some maladaptive behaviors such as terrorism or psychopathologies. However, Lazarus and Folkman (1984) criticized this idea for oversimplifying the relationship between people and society. According to them, different individuals have different coping strategies for dealing with conflicts between themselves and society. In addition, the mismatch between a person and society is not a static concept; instead, it is a dynamic process. Different social systems demand different things from individuals, and individuals have different resources to meet those demands (Lazarus & Folkman, 1984).

One of the resources to meet the demands of society is society itself. Society does not only cause stress, it also provides support to individuals to meet the demands of the environment. According to Kaplan, Cassel, and Gore (1977), a person's basic needs can be fulfilled by his or her interactions with others in society. These needs can be met by socioemotional help (e.g., acceptance and sympathy) or instrumental help (e.g., advice, information, and money). In order to function well, people need to know how to use their resources to meet the demands of society. A lack of social relationships caused by death, separation, or migration may produce stress (Lazarus & Folkman, 1984).

Social support acts as a barrier to stress by providing enough resources to cope with the negative results of stressful events. If other things are equal, people have better morale and health and function better when they believe that they will receive social support when they need it. Social support reduces the negative effects of stressful events, because supporting persons provide acceptance to the individual, even if he or she is in an unacceptable situation. Thus the individual believes that he or she is still a valued person (Cobb, 1976).

Lazarus and Folkman (1984) mentioned the classic work of Bowlby (1969; 1973; 1980) about attachment to display the importance of social support on stress. According to Bowlby's attachment theory, separation from significant others (this is the caregiver for infants) causes stress and anxiety. Thus, it can be concluded that, separation and a lack of enough social support cause traumatic results even for infants.

Social support also fosters self-esteem, capability, coping, and belonging (Ray, 2002). Suls (1982) mentioned the following positive effects of social support: it reduces uncertainty and worry, sets good examples, encourages people to share their problems with others, provides sympathy, and makes helpful information available to those who need it.

Crockett et al. (1956) examined the relations between acculturative stress and psychological functioning, as well as the protective role of social support and coping style. Their sample was 148 Mexican American college students. Researchers predicted that social support from parents and friends would moderate the relationship between acculturative stress and both anxiety and depression. Results were controversial in regard to the buffering effects of social support on

acculturative stress. When acculturative stress was high, students who reported higher social support had fewer symptoms. However, when acculturative stress was low, students who reported higher social support also reported more symptoms than their peers who reported lower social support. In addition, the moderating effects of parental support were more consistent than the moderating effects of peer support. Parental support and active coping influenced the effects of acculturative stress on anxiety and depression. Peer support moderated the relationship between acculturative stress and anxiety.

Hobfoll and Vaux (1993) summarized the models of social support's effects on stress. Different models presented different opinions about the relationship between stress and social support. According to the *buffer model* social support can protect people from stressful life events. People who have strong social support can cope better with stress than people who have weak social support (Thoits, 1982). On the other hand, the *direct model* proposes that social support cannot directly protect people from stress; instead, it improves people's well-being and helps them cope with stress. The buffer model cannot explain many critical questions regarding when, why, and how social support influences stress. According to Cohen and McKay's (1984) *specificity model*, people can cope with different stressors with different coping skills, so social support will provide buffering only if it contributes to those specific coping skills. Cutrona's (1990) model of *optimal matching* focused on two dimensions of stressors. Instrumental support (providing useful information) and esteem support (sustaining self-efficacy) can help people cope with controllable stressors, but emotional support is the only type of support that helps people cope with uncontrollable stressors.

Although there are many studies on the buffering effect of social support on stress, relationship between stress and social support is still a controversy. The biggest weakness of studies on the relationship between stress and social support is that researchers do not agree on a one operational definition of social support. Some definitions focused on lack of life difficulties rather than support. Some of them focused on emotional support and ignored other kinds of support. However, according to Thoits (1982), a well conceptualized and operationalized definition must include the amount, types, and sources of the support. Thus, Thoits defined social support as a system which is a subset of an individual's total social network which provides social, emotional, and instrumental support.

In addition to Thoits (1982) different researcher also discussed different types and functions of the social support. According to Schaefer, Coyne and Lazarus (1981) social support has three essential functions: emotional, tangible and informational. Emotional support plays an important role by making people feel that they are loved and cared for by others. Tangible support provides direct assistance, such as free and voluntary care during illness. Informational support gives feedback, information, and advice when needed. House (1981) claimed that emotional support is the most important type of support to reduce the detrimental effects of stress.

Cohen and Syme (1985) grouped social support in two categories: structural support and functional support. Structural support is the quality and quantity of the support. Functional support is the relationship between the supporter and the person who receives the support. Functional support includes four types of resources: esteem support, informational support, social support and instrumental support. Esteem support promotes a person's self-esteem, informational support provides

information related to stressful events, social support involves spending time with a person to reduce stress, and instrumental support includes financial aid.

Vaux (1988) considered social support as a metaconstruct and defined the subconstructs as support network resources, supportive behavior, and subjective appraisals of support. Support network resources provide people with a strong social network in everyday life or when it is needed. Supportive behavior is the exchange of resources between at least two persons to fulfill the needs of the recipient of the support. Subjective appraisal of the support is people's evaluations of their supportive relationships. From an ecological point of view, social support is a dynamic process that involves transactions between people and their social networks. Social support helps people deal with the demand of society and achieve their personal goals. Supportive networks provide resources to people including caring, wisdom, money, energy, and opportunities to socialize. Intimate and close relations offer high quality support, because people in such relationships are more aware of one another's needs, help in an appropriate way when help is needed, and feel responsible for one another's troubles. People transfer resources to receive assistance from their networks. Then people evaluate those transfers to develop a general idea of their supportive relations. The perception of support is especially important according to cognitive psychologists. They claim that how people interpret the world is more important than how the world really is (Hobfoll & Vaux, 1993).

According to Lazarus and Folkman (1984), there is an important distinction between the number of relationships and the perception of the value of the relationships. They called the former social network and the latter perceived social

support. Perceived social support is the perception of the availability of support if it is needed (Barrera, 2000). According to Gore (1981), perceived support might intersect with stress. It provides positive expectations for interactions with others and increased self-efficacy (Weiss, 1974). Sarason et al. (1990) also examined support into two categories: received support and perceived support. They affirmed that getting enough perceived support provides more resilience for negative life events than getting less perceived support. Perceived social support also develops general well-being and life satisfaction (Ray, 2002). Kessler and McLeod (1985) found that emotional support and perceived support directly affect stress, but the number of social networks did not have an effect on stress.

Wethington and Kessler (1986) examined the differences between perceived support and received support in predicting adjustment to stressful life events. They did a cross-sectional data analysis from a national survey. Participants of the study were 1,269 married respondents between the ages 12 and 65. They analyzed data in two separate parts. In the first part, the effects of perceived support on stress were investigated. Perceived support had an effect on stress for groups that had experienced and that had not experienced a recent stressful event. But its effect was higher for the group that had experienced a recent stressful event than for the group that had not experienced a recent stressful event. 365 of the respondents who reported a recent stressful event participated in the second part of the study. In the second part, received support was controlled. The results showed that the effects of perceived support were not explained by received support. Hence, it can be concluded that perceived support is more important than received support in predicting stress.

2.4. International Graduate Student Stress

Stress is the biggest problem that influences university students' academic achievement (American College Health Association, 2007). Researchers stated that factors that cause stress for graduate students are different from other populations (Home, 1997; Kiviniemi et al., 2002; Mallinckrodt & Leong, 1992; Poyrazli & Kavanaugh, 2006; Ross et al., 1999). Thus this group must be examined detailed in terms of their unique stressors.

Home (1997) surveyed the factors related to stress for women college students. Based on the results of multiple regression analysis with a sample of 443 female students, only two life situation variables could predict stress at the first step. Students with lower incomes had higher stress and students who had three or more children also had lower stress. In addition, students who had strong support from their friends or families reported less stress. Many other studies also found that greater social support reduces stress (Dyk, 1987; Hayes & Lin, 1994; Mallinckrodt & Leong, 1992).

Usually female students reported significantly more stress and more symptoms of stress than male students did (Mallinckrodt & Leong, 1992). According to Younes and Asay's (1998) qualitative study with eight female graduate students, role conflict is one of the most powerful causes of female students' stress. Younes and Asay (1998) identified various roles including graduate student, wife, employee, mother, daughter, friend, daughter-in-law and teacher. Fortune (1987) studied stress and well being on graduate social work students and found that older students adapted better to stressful events in graduate programs than younger students.

Wagner (1986) examined the relationship between personality characteristics, situational factors, and the completion of doctoral dissertations. She studied with 200 graduate students. The study did not find any significant difference between groups in terms of locus of control and fear of success. However, students who completed all the requirements for the doctorate in education except the dissertation were less likely to cope with the stress of graduate study.

Nagi (1974) examined the relationship between critical periods of stress and the completion of doctoral degree in education. Students who could not complete their degree on time reported more stress related problems.

McDermont (2002) focused on stress, locus of control and Type A behavior pattern as predictors of the degree completion in doctoral program. The sample consisted of 107 respondents and the average age for starting the doctoral program was 39.5. Results revealed that although all three variables are statistically significant when independent logistic regression analyses were conducted, step-wise regression showed the most critical one for completing a doctoral degree was perceived stress. Students who reported higher stress finished their degree later than the students who did not report stress.

In addition to the above mentioned stressors, international students reported distinctive stressors such as language proficiency and acculturation (Poyrazli, Kavanaugh, Baker, & Al-Timimi, 2004). Immigrating to a new country means adapting to a new environment. Such a change is the source of potential and distressing conflicts between the person and environment, because the new environment makes new demands on the individual. The new environment is not predictable or familiar. Newcomers have to learn new concepts to adapt to the new

environment. Some of the coping strategies no longer work in new threatening situations, so people need to develop new strategies. In addition, some of the social support mechanisms are no longer available, so they need to find new support mechanisms. People may face conflicts or feel dissatisfied with their new roles and isolation. The more quickly things change; the more likely they are to cause stress. Obviously, the consequences of the changes depend on the expectations, beliefs, resources, and ways of living. Sometimes even very stressful changes may produce a more effective way of life. Thus it is not the change itself that causes stress but people's appraisals that result in stress (Lazarus & Folkman, 1984).

Poyrazli and Kavanaugh (2006) examined the effects of marital status, ethnicity, and academic achievement on graduate international students' adjustment in the United States. Married international students stated less adjustment strain than single students, and Asian students reported more adjustment strain than European students. GPA was also negatively correlated with total adjustment strain, educational strain, and English strain, and positively correlated with English proficiency. Master students reported lower English proficiency, lower academic achievement, and higher educational strains than doctoral students. Additionally, students who reported higher levels of English proficiency also reported higher levels of academic achievement and lower levels of educational strains.

Misra, Crist, and Burant (2003) investigated the relationship between life stress, academic stress, perceived social support, and reactions to stress by using structural equation modeling. Although the majority of the participants were international undergraduate students, the study also included graduate students in the United States. There were no significant differences between male and female

participants in terms of life stress and academic stress, but women showed higher reactions to stressors than men did. Higher levels of life stress and lower levels of perceived social support predicted higher levels of academic stress, and higher academic stress predicted higher reactions to stress. Finally, the overall model predicted 82% of the total variance in reactions to stress.

According to the results of Mallinckrodt and Leong's (1992) study with 105 international graduate students, social support is an important coping resource toward stressful life events. When gender differences were examined, relationships between faculty members were important especially for men and relationships with other students were important especially for women. Problems with living conditions and lack of financial resources are positively related to depression of women.

Myles and Cheng (2003) did qualitative research with 12 non-native English speaking international graduate students at a Canadian university. Researchers asked questions related to participants' relationships with supervisors, instructors, colleagues, and friends; to their teaching assistant experiences; and to their social life. Overall, the graduate students who were interviewed for the study reported no difficulty in their relationships with their supervisors, instructors, colleagues, or friends. Interestingly, they revealed that they had difficulties communicating with other international students because of the lack of English proficiency of both parties. Students reported the biggest difficulties in regard to their experiences as teaching assistants, because of their lack of proficiency in oral communication with native English speakers and because of cultural barriers between students and them. Students' social life experiences were mostly affected by their marital status.

Married students had very little time for socializing because they spent their time with their family. Some students shared a house with other students from their culture, so they still reported less socializing in the host culture, even though they had enough social support. If students intentionally made friends with Canadians, they become well socialized in the host culture.

Poyrazli, Kavanaugh, Baker, and Al-Timimi (2004) analyzed the effects of social support and demographic characteristics on the acculturative stress of international graduate students. 141 students responded to the surveys. Social support and English language proficiency correlated negatively with acculturative stress. Asian students reported higher levels of acculturative stress and lower levels of English proficiency than European students did. Married students reported higher levels of social support than single students did. Students who socialized primarily with other international students reported more acculturative stress than students who socialized primarily with Americans. Structural equation modeling also revealed that English proficiency, ethnicity, and social support significantly influenced acculturative stress.

Duru and Poyrazli (2007) did research on acculturative stress personality dimensions, demographic characteristics, the level of social connectedness, and English language proficiency among Turkish graduate students in the United States. Acculturative stress did not change according to the gender and age of participants. Marital status, English language proficiency, social connectedness, adjustment difficulties, neuroticism, and openness to experience were predictors of acculturative stress. Married students reported higher acculturative stress than did single students.

Adjustment difficulties correlated positively with acculturative stress, whereas social connectedness correlated negatively with acculturative stress.

The length of residence in the host culture is one of the important variables that influence students' stress in a foreign country. Generally, if the length of the residence increases, adjustment also increases. Zhang and Rentz (1996) investigated the cultural adaptation of Chinese students in the USA, and they found that there was a positive relationship between the adaptation and how long a person lived in the USA. A parallel study was done with Hispanic students by Fuertes and Westbrook (1996), and the same results were found about Hispanic students in terms of length of residence in the USA. Late-immigrant Hispanic students experienced more stress than early immigrant students. Furthermore, late immigrant Vietnamese students also had more psychosocial adjustment problems than early immigrants. Mena, Padilla, and Maldonado (1987) studied multicultural students in the USA, and they found that late immigrant students experienced more acculturative stress than early immigrants. In addition, Asian Indian adolescents' adjustment to American culture was also influenced by their residence in the USA.

Davis (1971) found that Turkish students who had spent 1 or 2 years in the USA considered the USA unfavorable, but students who had spent more than 2 years found the USA more favorable and had more positive attitudes toward US culture. However, there are also some inconsistent findings about Turkish students. According to Poyrazli, Arbora, Bullington, and Pisecco (2001) and Bektas (2004) psychosocial adjustment of Turkish college students in the USA was not affected by their time spent in the USA.

Language proficiency is another important factor that affects students' psychosocial adjustment to the host culture. Language skills are important not only for academic performance but also for psychological and social adjustment. Many studies showed that inability to speak English fluently negatively affects students' involvement in American culture (Barratt & Huba, 1994; Hayes & Lin, 1994; Poyrazli, 2000; Stoyanoff, 1997). Ciglarova (2005) pointed out the importance of providing opportunities for foreign students to improve their language proficiency. There was a positive correlation between the acculturative stress levels of Amerasians and their ability to speak English (Nwadoria & McAdoo, 1996). According to Poyrazli et. al. (2001) and Bektas (2004) reading and writing proficiency in English contributed to the adjustment level and life satisfaction of Turkish college students in the USA. The English language proficiency of Turkish international students in the USA was one of the predictors of their acculturative stress (Duru & Poyrazli, 2007).

CHAPTER III

METHOD

In this chapter, the participants, the instruments, the psychometric evidence of the scales for the population of this study, the analysis of data and the procedure were examined.

3.1. Participants

The participants of the study were 276 Turkish graduate students in the United States who were selected by convenience sampling. The sample was considered as representative of the population because data were collected from 70 different universities all around the United States.

One hundred forty of the participants were male (50.7%), and 136 of them were female (49.3%). One hundred sixty-one (58.3%) were enrolled in a quantitative department, and 95 (34.4%) of them were enrolled in a verbal department. One hundred thirty-one (47.5%) of them were master students, and 142 (51.4%) were doctoral students. One hundred twenty-five (45.3%) of the students were taking classes, 23 (8.3%) of them were studying for comprehensive exams, and 122 (44.2%) of them were writing their dissertations.

The age of the participants varied from 21 to 39 with a mean age of 26.76 ($SD = 3.01$). Eighty-one (29.3%) of participants were married, 170 (61.6%) were single, 22 (8%) were engaged, and 3 (1.1%) were widowed. Two hundred fifty-seven (93.1%) did not have a child, 13 (4.3%) had one child, and 6 (2.2%) had 2 children.

One hundred eighty-two (65.9%) of the participants reported that their annual income was adequate to live in the United States and to continue their

education, whereas 93 (33.7%) reported that it was not adequate. The expenses and allowances of 16 (5.8%) of the participants were met by their families, 15 (5.4%) by themselves, 55 (19.9%) by the Turkish Ministry of National Education (MEB) or the Council of Higher Education (YÖK), and 177 (64.1%) by the universities they attended. Twenty-seven (9.8%) of the students were working in a full-time job, 64 (23.2%) were working in a part-time job, and 184 (66.7%) did not work.

One hundred two (37%) of the participants were living with their Turkish friends, 78 (28.3%) were living with their families, 51 (18.5%) were living alone, 17 (6.2%) were living with an American friend, 16 (5.8%) were living with a friend from a different nation, and 12 (4.3%) were living in a dormitory.

Sixty-five (23.6 %) of the participants stated that their English proficiency was very good before they came to the United States, 106 (38.4%) stated that it was good, 76 (27.5%) stated that it was moderate, 24 (8.7%) stated that it was bad, and 5 of the participants (1.8%) stated that their English proficiency was very bad before they came to the United States. When their current English proficiency was asked, 251 (90.9%) of the participants said that it was good at that time, whereas 24 (8.7%) stated that it was not good enough. Participants' TOEFL (IBT) scores varied from 55 to 120 with a mean of 94.87 ($SD = 13.85$).

One hundred thirty-six (49.3%) of the participants had previous travel experience to other countries before they came to the United States, whereas 140 (50.7%) of them did not.

The length of residence in the United States of the participants varied from 1 month to 120 months with a mean of 34 months ($SD=26.18$).

3.2. Data Collection Instruments

Four instruments--the demographic information form, the perceived stress scale, the multidimensional scale of perceived social support, and the academic self-efficacy scale--were used to collect data in the present study.

3.2.1. Demographic Information Form

This form was developed by the researcher to collect data about the characteristics of the participants. There were 18 questions related to gender, age, marital status, number of children, university, department and degree, financial status and sources, living situations, previous travel experience to a foreign country, English language proficiency before and after coming to the United States, and length of residence in the United States.

3.2.2. Perceived Stress Scale-10 item version (PSS-10)

The Perceived Stress Scale-10 item version was developed by Cohen et al. (1983) to measure the individual's appraisals of stressful life events. Items were designed to reveal the degree to which respondents found their lives unpredictable, uncontrollable, and overwhelming in the last one month. Although the items were easy to understand, the scale was designed for people who had at least a junior high school education. The Perceived Stress Scale is a five point Likert scale ranging from 0 = never to 4 = very often. There are four reverse items which are written positively (items 4, 5, 7, and 8). Total scores range from 0 to 40 with higher scores indicating higher perceived stress. The internal consistencies of the original scale change from .75 to .86 (Cohen et al., 1983).

The Turkish version of the scale was developed by Celik-Orucu and Demir (2009) with a sample of 508 university students in Middle East Technical University. Exploratory and confirmatory factor analysis results showed that the

scale consisted of two factors: the perceived helplessness factor (items 1, 2, 3, 6, 9, and 10) and the perceived self-efficacy factor (items 4, 5, 7, and 8). The first factor explained 42.66% of the total variance, and the second factor explained 13.57% of the total variance. Overall alpha coefficient of the scale was found to be .84, and its correlation with the General Health Questionnaire was .61.

3.2.2.1. Validity and Reliability Studies of the PSS-10 for the Present Study

First, exploratory factor analysis was performed in order to provide evidence for construct validity of the PSS-10. Item loadings were examined by principal axis factoring with varimax rotation and eigenvalue of 1.00 as criterion. Appropriateness of sample size was checked according to Hair, Black, Babin, Anderson and Tatham's (2006) sample size criterion for factor analysis. They suggested that there must be 5 observations per variable at the minimum and it is preferable to have at least 10 observations per variable. There were 10 variables and 276 cases in the present study. Therefore sample size was acceptable. The Bartlett Test of Sphericity was statistically significant ($\chi^2=811.805$, $df=45$, $p<.000$). The result of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was found to be .86 which was higher than the suggested minimum value of .60 for conducting factor analysis (Tabachnick & Fidell, 2001). Results of the exploratory factor analysis were displayed in Table 1.

Table 1

Factor Loading and Communalities of the Factor Analysis of PSS-10

Item No	Factor I Perceived Helplessness	Factor II Perceived Self-efficacy	Communalities
1	.68		.47
3	.66		.46
2	.65		.52
9	.61		.38
10	.60		.53
8		.68	.47
7		.63	.43
4		.61	.38
5		.54	.39
6	.39	.43	.33

The factor structure of the PSS-10 in the present study was parallel with the original factor structure of the scale except for the item 6. This item was loaded on both factor 2 (perceived self-efficacy) and factor 1 (perceived helplessness) while it was originally proposed for factor 1. Since its factor loadings were close to each other, this item was evaluated under the perceived helplessness factor (Factor 1). The first factor explained 34.31% and the second factor explained 9.4% of the variance. Two-factor solution totally explained 43.71% of the variance.

In order to evaluate the two-factor structure, confirmatory factor analysis was performed. The measurement model was tested with covariance matrix and maximum likelihood estimation. Fit values of the two-factor model were presented in Table 2.

Table 2

Fit Values for Two-Factor Model of PSS-10

Model	Chi-square	df	SRMR	RMSEA	NNFI	IFI	CFI
Two-factor model	99.36	34	.05	.08	.94	.96	.95

Kline (2005) suggested that chi-square valued divided by degrees of freedom should be less than 3 for a good fit. Based on this criterion, chi-square of the model showed a good fit ($\chi^2 / df = 99.36/34 = 2.92$). For interpreting the fit indexes, Hu and Bentler's (1998) *Two Index Strategy* was used. They suggested two indexes to assess the model fit. The first index which was suggested by them is Standardized Root Mean Square Residual (SRMR) because of its sensitivity to misspecification. According to their criterion, SRMR must be .09 or less. For two factor model of PSS-10, it was .05 which was less than the cut-off point. As the second index, the SRMR should be used with one of the following fit indexes: Comparative Fit Index (CFI), Non-Normed Fit Index (NNFI), Incremental Fit Index (IFI), and Root Mean Square Error of Approximation (RMSEA). RMSEA should be less than .06, so this criterion was not met in the present model (RMSEA=.08). NNFI should be equal to or greater than the .95. In the model, NNFI was very close to the recommended cut-off level of Hu and Bentler (NNFI = .94). Although, conventional criteria suggested for IFI was .90 or above, Hu and Bentler recommended .95 or above as a cut-off value. The model met Hu and Bentler's criterion for IFI (IFI = .96). Finally, they recommended CFI .95 or higher for a good fit. The model also met this criterion

(CFI = .95). Thus, a two-factor model of PSS-10 in the present study had a good fit according to Two Index Strategy.

The path diagrams of the model with estimates (Figure 1), standardized solutions (Figure 2) and t-values (Figure 3) were displayed in Appendix A.

In the reliability studies of the PSS-10, Cronbach alpha coefficients and item-total correlations were examined. The alpha coefficient of the overall scale was .83. Alpha coefficients for the perceived helplessness and perceived self-efficacy factors were .81 and .73, respectively. As it is shown in Table 3 item-total correlations of the items of the scale ranged from .38 to .66.

Table 3

Item-Total Correlations of PSS-10

Items	Item-total Correlations
1	.48
2	.63
3	.54
4	.38
5	.54
6	.53
7	.48
8	.46
9	.45
10	.66

3.2.3. Multidimensional Scale of Perceived Social Support (MSPSS)

The original form of the scale was developed by Zimet, Dahlem, Zimet, and Farley (1988) to measure people's subjective evaluations of social support adequacy. It assessed the perceptions of social support adequacy from three different sources: family, friends, and significant other. One of the advantages of MSPSS was

its user friendly style. It was a simple-to-use and time-conserving scale. Many of the other social support instruments were more time consuming and/or difficult to administer (Zimet et al., 1988). It was a seven point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree. The scale consisted of 12 items and three factors: perceived support from family, perceived support from friends, and perceived support from significant other. Each factor had four items. The reliability of the original scale was .88. Cronbach alpha coefficients for the subscales were .91 for Significant Other, .87 for Family, and .85 for Friends subscales. Additionally, the test-retest reliability of the whole scale was .85, for the significant other subscale it was .72, for the family subscale it was .85, and for the friends subscale it was .85. For construct validity evidence, correlations between the MSPSS and the depression and anxiety dimensions of the Hopkins Symptom Checklist were measured. High levels of perceived support were related with low levels of depression and anxiety. Total scores of the scale ranged from 12 to 84 with higher scores indicating higher perceived social support.

The Turkish version of the scale was adapted by Eker, Arkar, and Yaldiz (2001). For the Turkish sample, three factors of the scale explained 75 % of the total variance. The family subscale explained 45% of the total variance, the significant other subscale explained 17.9% of the total variance, and the friend subscale explained 12.4% of the total variance. Cronbach alpha coefficients of the family, friends, and significant other subscales and the whole scale were .85, .88, .92, and .89, respectively.

3.2.3.1. Validity and Reliability Studies of MSPSS for the Present Study

Exploratory factor analysis was performed in order to provide evidence for construct validity of the MSPSS. Item loadings were examined by principal axis factoring with varimax rotation and eigenvalue of 1.00 as criterion. According to Hair et al. (2006) sample size was appropriate for factor analysis. There were 12 variables and 241 cases in the present study. The Bartlett Test of Sphericity was statistically significant ($\chi^2 = 2073.642$, $df = 66$, $p < .000$). The result of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was .83 which was above the suggested minimum value of .60 (Tabachnick & Fidell, 2001). Results of the exploratory factor analysis were displayed in Table 4.

Table 4

Factor Loading and Communalities of the Factor Analysis of MSPSS

Item No	Factor I Significant Other	Factor II Friends	Factor III Family	Communalities
2	.93			.90
5	.87			.78
1	.86			.78
10	.84			.77
7		.91		.85
9		.82		.73
6		.82		.72
12		.73		.59
4			.76	.60
8			.76	.62
11			.68	.51
3			.63	.42

The factor structure of the MSPSS in the present study was the same as the original factor structure of the scale. The first factor explained 39.85%, the second factor explained 16.80%, and the third factor explained 12.46% of the variance. Three-factor solution totally explained 69.11% of the variance.

In order to evaluate the three-factor structure, confirmatory factor analysis was performed. The measurement model was tested by covariance matrix and maximum likelihood estimation. Fit values of the three-factor model were presented in Table 5.

Table 5

Fit Values for Three-Factor Model of MSPSS

Model	Chi-square	Df	SRMR	RMSEA	NNFI	IFI	CFI
Three-factor model	148.34	51	.19	.17	.83	.87	.87

Kline (2005) suggested that chi-square valued divided by degrees of freedom should be less than 3 for a good fit. Based on this criterion, chi-square of the model showed a good fit ($\chi^2 / df = 99.36/34 = 2.92$). According to Hu and Bentler's (1998) Two Index Strategy, three-factor model for MSPSS did not fit well (SRMR=.19, RMSEA=.17, NNFI=.83, IFI=.87, CFI=.87). However, although they made some recommendations for cutoff criteria they also stated that it is difficult to specify one-size-fits-all cut-off points, because they cannot work well with in all conditions. Marsh, Hau, and Wen (2004) criticized the cutoff criteria of Hu and Bentler as too strict and would have been lower for many models. Thus, because exploratory factor analysis also supported three-factor solution, the three factor structure of the scale was accepted.

The path diagrams of the model with estimates (Figure 4), standardized solutions (Figure 5) and t-values (Figure 6) were displayed in Appendix A.

In the reliability studies of the MSPSS, Cronbach alpha coefficients and item-total correlations were examined. The alpha coefficient of the overall scale was .87. Alpha coefficients for the support from family, support from friends, and support from significant other factors were .82, .91, and .94, respectively. As it is shown in Table 6, item-total correlations of the items of the scale ranged from .39 to .70.

Table 6

Item-Total Correlations of the MSPSS

Items	Item-total Correlations
1	.70
2	.70
3	.39
4	.41
5	.66
6	.56
7	.55
8	.44
9	.59
10	.71
11	.44
12	.55

3.2.4. Academic Self-Efficacy Scale (ASES)

The original scale was developed by Santiago and Einarson (1998) to indicate the confidence level of graduate students related to several degree related tasks. It was a three point Likert scale (2 = very confident, 1 = somewhat confident, 0 = not confident at all) which consisted of 12 items and one factor. The internal consistency of the scale was .80. Overall scores ranged from 0 to 20. Higher scores indicated higher academic self-efficacy.

The Academic Self-Efficacy Scale was adapted to Turkish by Atik, Cayirdag, Demirli, Kayacan and Aydin (2008). While it was being translated to Turkish, some statements were changed because of language appropriateness. The Cronbach alpha coefficient of the Turkish version of the scale was .84. Total variance explained by one factor was found to be 43%. Factor loadings of the items changed from .32 to .72. Confirmatory factor analysis also supported one factor structure for the Turkish version of the scale.

3.2.4.1 Validity and Reliability Studies of the ASES for the Present Study

Exploratory factor analysis was performed in order to provide evidence for construct validity of the ASES. Item loadings were examined by principal axis factoring with varimax rotation and eigenvalue of 1.00 as criterion. There were 10 variables and 242 cases in the present study. Thus sample size was appropriate. The Bartlett Test of Sphericity was statistically significant ($\chi^2 = 1089.416$, $df = 45$, $p < .000$). The result of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was .92 which was greater than .60. Results of the exploratory factor analysis were displayed in Table 7.

Table 7

Factor Loading and Communalities of the Factor Analysis of ASES

Item No	Factor I	Communalities
10	.83	.68
1	.81	.65
9	.72	.52
8	.69	.48
2	.69	.47
5	.68	.46
7	.68	.46
3	.67	.45
6	.52	.27
4	.41	.17

The one-factor structure of the ASES in the present study was the same as the original factor structure of the scale and it explained 46.16% of the total variance.

In order to evaluate the one-factor structure, confirmatory factor analysis was performed. The measurement model was tested by covariance matrix and maximum likelihood estimation. Fit values of the one-factor model were presented in Table 8.

Table 8

Fit Values for One-Factor Model of ASES

Model	Chi-square	df	SRMR	RMSEA	NNFI	IFI	CFI
One-factor model	110.79	35	.05	.09	.96	.97	.97

Kline (2005) suggested that chi-square valued divided by degrees of freedom should be less than 3 for a good fit. Thus Kline's (2005) criterion for chi-square was

not met in the model ($\chi^2 / df = 110.79/35 = 3.16$). However fit indexes showed good fit. According to Hu and Bentler's (1998) Two Index Strategy, SRMR must be .09 or less. For Academic self-Efficacy Scale, it was .05 which was less than the cut point. RMSEA should be less than .06, so this criterion did not meet in the present model. NNFI should be equal to or greater than the .95. In the model it was .96. Two Index Strategy suggested .95 or above as a cutoff value for IFI. The model met the criterion for IFI. Finally, the Two Index Strategy recommended CFI .95 or higher for a good fit. The model also met this criterion. Thus, one-factor model of Academic Self-Efficacy Scale in the present study had a good fit according to Two Index Strategy.

The path diagrams of the model with estimates (Figure 7), standardized solutions (Figure 8) and t-values (Figure 9) were displayed in Appendix A.

In the reliability studies of the ASES, Cronbach alpha coefficients and item-total correlations were examined. The alpha coefficient of the overall scale was .89. As it is shown in Table 9, item-total correlations of the items of the scale ranged from .40 to .76.

Table 9

Item-Total Correlations of ASES

Items	Item-total Correlations
1	.74
2	.64
3	.62
4	.40
5	.64
6	.50
7	.64
8	.64
9	.69
10	.76

3.3. Data Collection Procedure

As a first step, ethical permission for the study was obtained from the Ethical Committee of Middle East Technical University. After that, an online survey which included the demographic information form and the scales were created at www.surveymonkey.com. Then contacts were made with the Turkish Student Associations of various universities in the United States via e-mail. A letter explains in the aim of the study, the confidentiality of the responses, and the link of the survey was sent to the presidents of the associations. Presidents were requested to announce the study to their members. When voluntary participants received the e-mail, they simply clicked the link and accessed the survey. After they completed the survey, they could click the send button to send the results to the response pool. The researcher could see all the responses on the website by using a username and password. Responses were kept totally confidential; that is no one could see the results without having the special username and the password of the survey and

researcher did not have any personal information about the participants unless it was stated by the responder. At the beginning, 347 data were collected but 71 of the participants did not respond one or more scales completely, so they were deleted. Analyses were done by 276 participants.

3.5. Analysis of Data

First, the validity and reliability analyses of the scales were conducted for the sample of the present study. For construct validity, exploratory and confirmatory factor analyses were conducted. For reliability evidence of the scales, item-total correlations and Cronbach alpha coefficients were calculated. Then descriptive statistics of the sample were carried out.

To examine the relationship between perceived stress and perceived social support, academic self-efficacy, length of residence in the United States, gender, age, status in the degree of study, sponsor, perceived income, previous travel experience, TOEFL score, and perceived English proficiency, multiple regression analysis was performed. Before starting the analysis, categorical variables were examined to enter the analysis. Status in the degree of study consisted of three categories: taking classes, preparing for comprehensive exams, and writing the dissertation. Since the sample for the category *preparing comprehensive exams* was very small ($N = 23$), this group was included in the group *writing dissertation*. That is meaningful in terms of practice because perceived stress experienced during the qualification exams and dissertation research process differs from perceived stress while taking classes in that the former is more critical in terms of its influence on graduate students' academic career. Second, sponsorship actually had eight categories: sponsored by family, herself/himself, Ministry of National Education

(MEB) or Council of Higher Education (YOK), university through assistantship, university through scholarship, other individuals or institutions in the U.S., and other institutions in Turkey. This categorization was redefined in terms of ambiguity according to the Lazarus' Cognitive Appraisal Theory of Stress. According to that theory, financial and career security in the present study determines the degree of ambiguity. Supposedly, students who are sponsored by MEB/YOK or some other institutions in Turkey have both financial security throughout their graduate education as well as job security after graduation. These factors would decrease the ambiguity of those situations. For this reason, I collapsed Ministry of National Education (MEB) or Council of Higher Education (YOK) and other institutions in Turkey as low ambiguity group; and the rest as high ambiguity group.

Outliers and assumptions of the multiple regression were checked before multiple regression analysis was conducted. After all assumptions were met, regression analysis was conducted. For multiple regression analysis, perceived stress were entered as dependent variable and academic self-efficacy, factors of the perceived social support scale (support from family, support from friends and support from significant other), age, gender, status in the degree of study, sponsor, perceived income, previous travel experience, TOEFL score, perceived English proficiency, and length of residence in the U.S. were entered as independent variables. Variables were selected based on the *Cognitive Appraisal Theory of Stress*. According to the theory, there are two personal factors which influence people's perceptions about whether an event is stressful or not: commitment and self-efficacy. To test the participants' commitment, their status in the degree of study was entered into the regression model. To test self-efficacy, academic self-

efficacy was entered into the model. There are four situational factors in the theory: novelty, temporal factors, ambiguity, and timing of stressful life events. To test novelty, previous international travel experience was entered into the regression model. Having a previous travel experience was coded as 1 and no previous travel experience was coded as zero. To test temporal factors, length of residence in the U.S. was entered into the model. It was asked as the months that have spent in the USA. To test ambiguity, perceived income and sponsor were entered into the model. Perceived income asked if the participants believe that their income is adequate to continue their graduate education in the USA or not. Adequate income was coded as 1 and inadequate one was coded as zero. Sponsor was asked if the participant's expenses are met by a sponsor such as ministry of national education or council of higher education or the expenses are met by participant or his or her family. Former was coded as zero and later was coded as 1. Finally, to test the timing of stressful events in the life cycle, age was entered into the model as a continuous variable. In addition to these variables, two new variables--English proficiency and perceived social support--which were discussed in the literature as important for international students' stress were added to the analysis. English proficiency was asked by three different questions: TOEFL score and perceived English proficiency. All TOEFL scores were converted to the Internet-based toefl score which was a continuous variable. Perceived English proficiency was asked whether the participants perceived their current English level as adequate-which was coded as 1- or inadequate- which was coded as zero-to continue their education in the USA,

The forced entry method of multiple regression showed which variables in the model predicted the perceived stress of Turkish graduate students in the United

States. After it was established which variables were more important than others, further analysis was conducted to find out the individual contribution of each predictor. Thus, a forward stepwise analysis was run including only predictors which contributed significantly to the model.

Group comparisons were investigated for the factors of perceived stress (perceived helplessness and perceived self-efficacy) according to marital status, department type, degree of study, living conditions and employment situation. Marital status consisted of four categories: *married*, *single*, *widowed*, and *engaged*. Since *widowed* ($N = 3$) and *engaged* ($N = 22$) had very small sample sizes, these groups were included to the group *single*. For department type, students were asked the name of the department, and departments were grouped under two categories: *quantitative* and *verbal*. The degree of study was asked; participants were either *master* or *doctoral* students. Employment situation was asked to find out if they were working or not. To determine *living conditions*, we asked if students were living with their *families*, *Turkish friends*, *American friends*, *friends from other countries*, *in a dormitory*, or *alone*. Since *living with American friends* ($N = 17$), *friends from other countries* ($N = 16$) and *living in dormitory* ($N = 12$) had small sample sizes, they were combined as *living with non-Turkish friends* ($N = 45$). To analyze group differences MANOVA were conducted.

Since academic self-efficacy is the strongest predictor of perceived stress of Turkish graduate students in the U.S., a multiple regression analysis was conducted to show which variables predict the academic self-efficacy. Academic self-efficacy was entered as dependent variable and perceived social support, status in the degree

of study, gender, sponsor, perceived income, TOEFL score, and perceived English proficiency were entered as independent variables.

All above mentioned analyses were carried out using Statistical Package for Social Sciences (SPSS) programs for Windows 19 software. To test the regression model, path analysis was employed using LISREL 8.80 (Jöreskog & Sörbom, 1996). In the model, the direct effects of academic self-efficacy, income, and gender on perceived stress and the direct effects of social support, income, gender and perceived English proficiency on academic self efficacy were tested. To see the model fit, Hu and Bentler's (1998) *Two Index Strategy* was used. They suggested two indexes to assess the model fit. The first index which was suggested by them is Standardized Root Mean Square Residual (SRMR) because of its sensitivity to misspecification. As the second index, the SRMR should be used with one of the following fit indexes: Comparative Fit Index (CFI), Non-Normed Fit Index (NNFI), Incremental Fit Index (IFI), and Root Mean Square Error of Approximation (RMSEA). In addition, chi-square (χ^2) and the ration of chi-square to its degrees of freedom (χ^2 / df) were also calculated.

CHAPTER IV

RESULTS

In this chapter the findings of the study were presented. First, descriptive statistics (means and standard deviations) and correlations between the variables were given. Then the results of multiple regression analysis, t-tests and ANOVAs were reported.

4.1. Descriptive Statistics

Table 10 showed the means and standard deviations of the dependent and independent variables.

Table 10

Descriptive Statistics of the Variables of the Study

Variables		N	Mean	SD
Perceived Stress	Perceived Stress Total	276	19.79	5.48
	Perceived Helplessness	276	12.59	3.96
	Perceived Self-Efficacy	276	7.20	2.36
Social Support	Perceived Social Support Total	241	62.62	14.39
	Support from Family	241	23.72	5.65
	Support from Friends	241	21.10	5.54
	Support from Significant Other	241	17.80	8.58
Academic Self-Efficacy	Academic Self-Efficacy Total Score	242	14.61	4.45

The mean for the total perceived stress score was 19.79 with a standard deviation of 5.48. For the perceived helplessness factor, the mean was 12.59 with a standard deviation of 3.96. For the perceived self-efficacy factor, the mean was 7.2 with a standard deviation of 2.36.

The mean for the Multidimensional Scale of Perceived Social Support was 62.62 with a standard deviation of 14.39. For the support from family factor, the

mean was 23.72 with a standard deviation of 5.65. For the support from friends factor, the mean was 21.1 with a standard deviation of 5.54. For the support from significant other factor, the mean was 17.8 with a standard deviation of 8.58.

The mean of the academic self-efficacy scale was 14.61 with a standard deviation of 4.45.

4.2. Correlation Matrix of the Variables

Intercorrelations of the variables were examined by computing Pearson Correlation Coefficients. The Perceived Stress Scale negatively and significantly correlated with perceived social support, academic self-efficacy, the TOEFL score, and perceived income ($r = -.18$, $r = -.56$, $r = -.13$, and $r = -.24$, respectively). Table 11 displayed the correlations between the variables.

Table 11
Pearson correlation coefficients between dependent and independent variables

	1	2	3	4	5	6	7	8	9	10	11
1. PSS-10											
2. MSPSS	-.185*										
3. ASES	-.557*	.306*									
4. Age	-.006	.143*	.106								
5. Toefl IBT	-.135*	.067	.164*	.053							
6. Perceived English Proficiency	-.108	.168*	.240*	.131*	.354*						
7. Length of Residence	.009	.060	.118	.579*	.139*	.200*					
8. Degree of Study	-.103	.037	-.070	-.349*	-.286*	-.187*	-.566*				
9. Sponsor	.047	.090	.108	.004	.370*	.296*	.295*	-.354*			
10. Perceived Income	-.243*	.090	.204*	-.169*	.111	.033	-.048	.116	.141*		
11. Previous Travel Experience	-.066	.059	.090	-.105	.238*	.151*	-.086	-.022	.156*	-.046	

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

4.3. Multiple Regression Analysis

Before multiple regression analysis was conducted, assumptions of the multiple regression were checked.

4.3.1. Assumptions of the Multiple Regression Analysis

First, the correlation matrix showed that correlations among predictors changed from moderate to low. The highest correlation was between age and length of residence in the U.S. ($r = .58$).

Outliers were checked by Cook's distance and standardized DFBetas. According to Cook and Weisberg (1982) and Field (2005), values greater than 1 may be outliers. In the present study, none of the DFBetas were greater than 1. Hence, no extreme scores affecting the regression model were found.

For checking normality, Skewness and Kurtosis coefficients, histograms, Q-Q plots were checked. Histograms and box plots indicated that most of the items were normally distributed. Additionally, all skewness and kurtosis statistics were acceptable because they were different from and not so distant from 0.

For multicollinearity, the Variance Inflation Factor (VIF) and Tolerance statistic were examined. All VIFs (ranging between 1.96 and 1.11) were smaller than 5, and all tolerance statistics (ranging between .90 and .51) were above .2. Thus there was not any strong correlation between the predictors in the regression model.

Independent errors assumption was checked by the Durbin-Watson test. The Durbin-Watson value for the present study was 1.85, which was between 1.5 and 2.5. Thus, none of the residuals were correlated.

Linearity and homoscedasticity were checked by scatterplots. Points on the plot were randomly dispersed throughout the plot. Thus, the model was a linear one, and the residuals at each level of predictors had the same variance.

4.3.2. Results of the Multiple Regression Analysis

To test research question 1 (Do academic self-efficacy, perceived social support from family, perceived social support from friends, perceived social support from significant other, length of residence in the U.S., age, gender, status in the degree of study, sponsor, perceived income, previous travel experience, TOEFL score, and perceived English proficiency predict the perceived stress of Turkish graduate students in the United States?) the forced entry method of multiple regression was used. The results of the regression indicated that the predictors explained 38% of the variance ($R^2 = .38$, $F_{(13, 197)} = 8.73$, $p < .01$).

Table 12

Summary of Multiple Regression Analysis for Variables Predicting Perceived Stress

Variable	<i>B</i>	<i>SE b</i>	β
(Constant)	34.51	4.91	
Age	.07	.13	.04
Gender	-1.33	.68	-.12*
Status in the degree of study	-1.23	.83	-.11
Sponsor	.78	.89	.06
Perceived Income	-2.13	.71	-.19**
Previous Travel Experience	-.38	.67	-.03
TOEFL Score	-.03	.03	-.07
Perceived English Proficiency	.34	1.22	.02
Length of Residence	-.01	.02	-.05
Social Support from Family	-.05	.06	-.05
Social Support from Friends	-.01	.07	-.01
Social Support from Significant Other	.02	.04	.04
Academic Self-Efficacy	-.59	.08	-.49**

$R^2 = .38$, $F_{(13, 197)} = 8.73$, $p < .01$. * $p < .05$, ** $p < .01$.

As it is shown in the Table 12, among all predictors, gender, ($t(197) = -1.95$, $p < .01$), perceived income ($t(197) = -2.99$, $p < .01$) and academic self-efficacy ($t(197) = -7.22$, $p < .01$) significantly contribute to the model to predict perceived stress.

Following the selection of important variables, further analysis was conducted to find out the individual contribution of each predictor. Field (2005) suggested that if the initial forced entry method of multiple regression reveals two or more significant predictors, then run a forward stepwise multiple regression to realize the individual contributions of each variable. Thus a forward stepwise analysis was run including only these three predictors (academic self-efficacy, income and gender). Table 13 shows the results of the forward stepwise regression analysis.

Table 13

Summary of Forward Regression Analysis for Variables Predicting Perceived Stress

		<i>B</i>	<i>SE b</i>	<i>B</i>
1	Constant	29.82	1.01	
	Academic Self-Efficacy	-.68	.07	-.56*
2	Constant	30.46	1.01	
	Academic Self-Efficacy	-.64	.07	-.52*
	Income	-1.82	.62	-.16*
3	Constant	30.64	1.01	
	Academic Self-Efficacy	-.61	.07	-.50*
	Income	-1.71	.61	-.15*
	Gender	-1.62	.58	-.15*

$R^2 = .31$ for model 1, $R^2 = .33$ for model 2, $R^2 = .36$ for model 3. * $p < .01$.

In step 1, academic self-efficacy was entered to the model. It contributed 31% of the variation in perceived stress ($R^2 = .31$, $F_{(1, 241)} = 108.04$, $p < .01$). In the

second step, in addition to academic self-efficacy, income was entered to the analysis. It contributed 2% to the model ($R^2 = .33$, $F_{(2, 241)} = 60.03$, $p < .01$). In step 3 gender was entered to the model in addition to academic self-efficacy and income. It contributed 3% of the variance in perceived stress ($R^2 = .36$, $F_{(3, 241)} = 43.72$, $p < .01$).

4.3.3. Multiple Regression Analysis of Academic Self-Efficacy

Since academic self-efficacy is the strongest predictor of perceived stress of Turkish graduate students in the U.S., a multiple regression analysis was conducted to show which variables predict the academic self-efficacy. Results were displayed on Table 14.

Table 14

Multiple Regression Analysis for Variables Predicting Academic Self-efficacy

Variable	<i>B</i>	<i>SE b</i>	<i>B</i>
(Constant)	5.82	2.31	
Status in the degree of study	-.70	.58	-.08
Sponsor	-.18	.74	-.02
Gender	1.96	.54	.22**
Perceived Income	1.46	.57	.15*
Perceived English Proficiency	2.34	.99	.15*
Social Support	.09	.02	.29**

$R^2 = .21$, $F_{(6, 235)} = 9.95$, $p < .01$. ** $p < .01$, * $p < .05$.

The results of the regression indicated that the predictors explained 21% of the variance ($R^2 = .21$, $F_{(6, 235)} = 9.95$, $p < .01$). As it is shown in the Table 18, among all predictors, gender ($t(235) = 3.64$, $p < .01$), perceived income ($t(235) = 2.56$, $p < .05$), perceived English proficiency ($t(235) = 2.35$, $p < .05$) and perceived social support ($t(235) = 4.73$, $p < .01$) significantly contribute to the model to predict academic self-efficacy of Turkish graduate students in the United States.

4.4. Group Comparisons of Perceived Stress

To test the research question 2 (Are there significant differences between students' perceived helplessness and perceived self-efficacy scores from the perceived stress scale with respect to marital status, department type, degree of study, employment situation, and living conditions?) MANOVA were conducted.

The results revealed a significant difference between students who work and those who do not (Wilks $\Lambda = .97$, $F_{(2, 272)} = 4.81$, $p < .01$). Perceived self-efficacy score of students who do not work ($M = 7.32$, $SD = 2.25$) was higher than the students who work ($M = 6.96$, $SD = 2.56$). Perceived helplessness scores of working students ($M = 13.24$, $SD = 3.65$) were higher than the non-working students ($M = 12.59$, $SD = 3.97$). There were not significant differences between groups according to living conditions (Wilks $\Lambda = .98$, $F_{(6, 272)} = .98$, $p > .05$), degree of study (Wilks $\Lambda = .99$, $F_{(2, 270)} = .71$, $p > .05$), department (Wilks $\Lambda = .98$, $F_{(2, 253)} = 2.06$, $p > .05$) and marital status (Wilks $\Lambda = .99$, $F_{(2, 273)} = .57$, $p > .05$).

4.5. The Fit Statistics of the Path Model

Based on the two different regression analysis reported above, a path model was proposed to examine if a model combining the two models found in regression analysis has a good fit. According to this model, academic self-efficacy was a mediator variable between perceived stress and four variables including gender, perceived income, social support and perceived English proficiency. Additionally, the direct effects of perceived income and gender on stress were tested.

Fit indices were calculated using Lisrel 8.80. The initial fit statistics obtained from the path analysis are summarized in Table 15.

Table 15

Fit Values for the Model

	Chi-square	df	SRMR	RMSEA	NFI	IFI	CFI
Model	1.31	2	.01	.00	.99	1.00	1.00

Chi-square value was non-significant ($\chi^2 = 1.31$, $df = 2$, $p > .05$). Chi-square value is smaller than the degrees of freedom, which meets the criteria suggested by Kline (2005) and Tabachnick & Fidell (2007). This indicates that the model fits to the data. According to Hu and Bentler's (1998) Two-Index Strategy, SRMR was .01 which was less than the cut point (.09), RMSEA (.00) was less than the cut point (.06), and NFI, IFI and CFI were all greater than .95. Thus, the model met Hu and Bentler's criteria. Overall, the model fit well to the data.

CHAPTER V

DISCUSSION

This chapter consists of discussion and implication of present research and recommendations for future research.

5.1. Discussion of Findings

The main purpose of this study was to investigate the perceived stress of Turkish graduate students in the USA based on the Cognitive Appraisal Theory of Stress by looking at different predictors. These predictors were perceived social support, academic self-efficacy, length of residence in the United States, age, gender, status in the degree of study, sponsor, perceived income, previous travel experience, TOEFL score, and perceived English proficiency.

The main analysis of the present study was done by the forced entry method of multiple regression. Results showed that the above-mentioned predictors explained 38% of the perceived stress of Turkish graduate students in the USA. Among all predictors, gender, perceived income and academic self-efficacy significantly contributed to the model. When individual contributions of those three variables were examined, academic self-efficacy contributed most, followed by income and gender, respectively.

These findings are consistent with the literature and with Lazarus and Folkman's (1984) theory of stress in several ways. Self-efficacy is one of the most important concepts of Lazarus and Folkman's (1984) theory of stress. It is important because people's beliefs about their own capacities affect their perceptions of difficulties. If they believe that they can manage the difficulties and develop coping strategies, they perceive the difficult situation as a challenge rather than a threat. In

the same way, taking an emotional perspective, Bandura (1993) noted that people who do not have trust in their management skills under a threatening situation experience higher stress. Thus, they perceive many aspects of the environment as dangerous. According to Jerusalem and Mittag (1997), people who have higher self-efficacy beliefs perceived their lives as less stressful than people who have low self-efficacy beliefs. In addition, self-efficacy is the strongest moderator of stress when compared with the other variables of their study (i.e. partnership and employment status).

Hackett, Betz, Casa, and Rocha-Singh (1992) reported a significant relationship between academic self-efficacy and stress. But, their regression model held stress as predictor, and self-efficacy as a criterion or dependent variable. In their model, stress had a significant independent effect. They argued that self-efficacy mediates the effects of stress. The findings of Solberg and Villareal (1997) also supported this perspective. They examined whether self-efficacy, and social support moderate the relationship between stress and distress among Hispanic college students. They reported a strong negative relationship between self-efficacy and stress. They found that self-efficacy expectations are related to distress but the interaction of stress and self-efficacy was not significant. This finding led to the conclusion that self-efficacy mediates the feelings of stress rather than moderating it.

Chemers et al. (2001) also described the relationship between self-efficacy and stress, and proposed that challenge-threat evaluations (perception of a situation as challenging or threatening based on one's experience as to demands of the situation and coping resources) moderate their relationship. They expected that students with higher academic self-efficacy would feel more capable of meeting the

demands of the situation and would be more likely to perceive the situation as a challenge rather than a threat. This perception would then influence their stress. This relationship within a larger model was tested and they found a significant path between academic self-efficacy and challenge-threat perception, and a significant path between challenge-threat perception and stress.

Considering our present findings along with the previous reports, it is possible to conclude that the link between self-efficacy and stress is clear. However, this relationship is complex and two-way. One can mediate the other in terms of affecting a third variable. Also, their relation can be moderated by other factors. Further studies can model those and compare whichever yields better results.

As far as the relationship between income and stress is concerned, there are several studies that have discussed the relationship between these two variables. According to Home's (1997) study with female college students, income is the most important life situation that affects students' stress. Among other variables income was one of the two variables that could enter the regression model in the first step and the only variable that remained significant in relation to stress.

The present study revealed that students who perceived their income insufficient reported higher stress than students who perceived their income sufficient. There are several parallel studies that showed the similar relationship between stress and income. For instance, results of the Mallinckrodt and Leong's (1992) study with international graduate students showed that lack of financial resources is significantly related to stress of female students. Also in Ross et al. (1999) study, financial difficulties were one of the most reported stressors among

students. According to their results, 71% of students reported financial difficulties as a stressor in their lives.

Gender was contributed the model significantly. Girls reported greater stress than boys. Parallel with this finding, Mallinckrodt and Leong (1992) revealed that female students reported significantly more stress than male students did. In another study, Beehr, Farmer, Glazer, Gudanowski, and Nair (2003) examined the indirect role of gender on stress. In their study about the relationship between social support and stress, gender is a moderator on the relationship between social support and stress. Females react more positively to social support which has a moderating or buffering effect on stress.

Younes and Asay (1998) explained the higher stress level of female graduate students with role conflict. Usually female students have more conflicting roles than male students. In addition to their role as a graduate student, they have many other roles such as wife, mother, daughter, daughter-in-law, employee etc. According to Lazarus and Folkman (1984), role conflicts may increase ambiguity.

In the literature, the effect of social support on perceived stress is a controversial issue. Previous studies found diverse results. For instance Beehr, Farmer, Glazer, Gudanowski and Nair (2003) claimed that buffering effects of social support on stressor-strain relationship are inconsistent and unclear. On the other hand, some studies found strong correlation between social support and stress (e.g. Home, 1997; Hayes & Lin, 1994) whereas some others found weak correlation (e.g. Gao, Chan & Mao, 2009; Marcelissen, Winnubst, Buunk, & Wolff, 1988). This study aims to examine this controversial relationship in the present sample. Results showed that perceived social support did not have an effect on perceived stress.

Viswesvaran, Sanchez and Fisher's (1999) meta-analytic review created a detailed picture of the social support and work-stress relationship. Meta-analyses combine and analyze effect sizes of the all studies about a given topic. Because a meta-analytic study gives an overall mean effect, it can be interpreted as a quantitative summary of all studies. Viswesvaran, Sanchez and Fisher's meta analysis revealed that the suppressor effect of social support on stress is weak.

Beehr, Bowling and Bennett (2010) found that social interactions may be even harmful and increase stress in some situations. They studied on the effects of social interactions on stress in the workplace. Social support is not always helpful to decrease stress. Depending on the kind of support, it might be even harmful. Harmful supports are the social interactions that focus on the stressful aspects of the workplace, the inadequacy of the person, and are unwanted. Beehr, Bowling and Bennett's results are especially supportive for the results of the present study because both studies focused on the individual's perceptions about their social supports.

Because of the strong effect of academic self-efficacy on perceived stress of Turkish graduate students in the U.S., predictors of academic self-efficacy were also examined. Results showed that gender, income, perceived English proficiency and social support significantly predict academic self-efficacy of Turkish graduate students.

In the present study, male students reported higher academic self-efficacy than female students. This finding is consistent with the literature. Bong's (1999) confirmatory factor analysis results showed that boys had higher self-efficacy in academic domains than girls. Betz and Hackett (1981) examined the self-efficacy

differences of female and male college students in traditional and nontraditional occupations. Female participants reported higher self-efficacy in traditional occupations but lower self-efficacy in nontraditional occupations. Their traditional occupations list included teacher, secretary, social worker etc. However nontraditional occupations were engineer, mathematician, physician, lawyer, administrator etc. Although Betz and Hackett's lists of occupations did not contain academicians as an occupation, when the occupations are examined, it is clearly seen that being a graduate student is a nontraditional occupation. Usher and Pajares (2008) explained this difference by stereotypic beliefs about gender rather than the gender itself. Those stereotypic beliefs might be caused by the expectations of families and society. Usually families had less academic expectations for their daughters than for their sons (Philips & Zimmerman, 1990).

There are several longitudinal studies that examined the income and self-efficacy relationship from different perspectives. For instance McAvay, Seeman, and Rodin's (1996) longitudinal study found that availability of financial resources predicts the self-efficacy. In Crocker and Luhtanen's (2003) longitudinal study, feelings about academic competency was a predictor variable. They found that feelings about academic competency in college years predicted academic and financial difficulties in the later years. When Crocker and Luhtanen's findings are considered along with the results of the present study, it can be said that there is a two-way relationship between income and self-efficacy. Depending on the study, either one or the other can be the predictor.

As far as the relationship between perceived English proficiency and academic self-efficacy, there are parallel studies that support the findings' of the

present study. In her dissertation, which focused on the psychosocial adjustment of international graduate students, Poyrazli (2000) found a positive relationship between language proficiency and academic self-efficacy. She examined English proficiency under four different areas- speaking, writing, reading and understanding proficiency in English- and found significant positive correlations between all areas and academic self-efficacy.

The present study provided a different perspective about the importance of English proficiency. In the study both perceived English proficiency and students' English language scores (i.e. TOEFL) were asked. Although the TOEFL scores were not related to academic self-efficacy, students' perceptions about their own language proficiency were. Students who perceived their English as unsatisfactory might have had emotional and cognitive barriers to communicating with their professors and peers, to being involved in their classes, and to understanding textbooks. When they were faced with an academic difficulty, instead of trying to cope with it they might easily have given up. Thus, their academic self-efficacy might have decreased.

There are several studies that show the relationship between academic self-efficacy and social support. Torres and Solberg's (2001) path model revealed that students who had higher family support reported higher self-efficacy. They discussed that college students who perceived higher support from their families has better relations with their professors and classmates. Those students also have strong beliefs about their abilities to complete their academic goals.

In some studies social support and academic self-efficacy were examined together as predictors of other variables. For instance, Solberg and Villarreal (1997) examined the predictors of adjustment of Hispanic college students and found that

self-efficacy and social support explained the 33% of the total variance of college adjustment. In a parallel study, Coffman and Gilligan (2002-2003) discussed the relationship between social support, self-efficacy, perceived stress, and life satisfaction among college students. In their study, higher social support and self-efficacy were related to the higher life satisfaction.

MANOVA results showed that there was a group difference between working and nonworking students according to the subscales of perceived stress scale. Working students reported higher perceived helplessness but lower perceived self-efficacy scores. Working students experience more role conflict and role ambiguity than non-working students. In addition to demands of new culture and the graduate school, those students have to meet the demands of their bosses and colleagues in the work environment. They are not only worried about their classes or their relations with their classmates and professors but also worried about not losing their jobs. When those students are not in the school, they spend most of their time in their work settings so they may not have enough time to study on their academic responsibilities.

5.2. Implications for Practice

This study represents a first step in understanding the predictors of perceived stress for Turkish graduate students in the USA. Problems and situations that are perceived as stressful by those students may differ from those perceived by other groups. International students have their unique concerns that cause stress (Yi, Lin, & Kishimoto, 2003). However, studies showed that international students do not use counseling services very often on campus (Mau & Jepsen, 1990; Mori, 2000; Nilsson, Berkel, Flores, & Lucas, 2004). Usually, international students list their

parents, spouses, or friends as their sources of help (Yi, et. al, 2003). Cultural differences and language barriers might be reasons for that (Mori, 2000). Although universities try to hire counselors from different cultures, it is not easy to find a Turkish counselor in a university counseling center in the United States. Consequently, Turkish educational attachés or other Turkish-American organizations might employ counselors at least in the places where Turkish student populations are high.

Not only university counseling services in the United States, but also counseling centers in Turkish universities can help that population. Most of the Turkish graduate students in the United States come to this country after they graduate from a university in Turkey. These students decide to continue their graduate studies in the United States while they are still undergraduate students. Career counseling services in Turkish universities might offer appropriate guidance and counseling services to those students. Such services may include information not only about the application processes but also about what the challenges and opportunities of being a graduate student in the USA. Thus, students will not surprised or disappointed after they start their graduate education.

Designing stress intervention programs or stress management trainings that specifically address stress among Turkish graduate students in the USA might be very helpful. In order to design an effective intervention program, one of the most critical things is determining the factors that cause stress of that population. This study might be used as needs assessment. For instance, the results of the present study suggest that academic self-efficacy is a necessary component in a successful intervention program. According to Bandura (1993), students who have low

academic self-efficacy are more vulnerable to achievement anxiety and stress. Thus, increasing students' self-efficacy might be a very helpful way to decrease their stress. According to Meece, Wigfield, and Eccles (1990), students' future success was predicted by their academic self-efficacy.

Financial difficulties are also an important predictor of stress. Thus, information about finding scholarships, working part-time, and immigration regulations that restrict working off campus for international students might be also added to orientation programs for new international students. At that point, college counselors might need to rethink their roles. During the first phase of their counselor-client relationship, college counselors might integrate multiple roles such as information provider and processor (Mori, 2000).

The present study also revealed that students who work reported higher perceived helplessness and lower perceived self-efficacy than students who do not work. Counselors might develop strategies to work on the role conflict and role ambiguity of those students. It is critical to discuss how to balance the demands of the school, work, family and social environment. Those students might also need special tactics for time management. Time management might be a part of the stress intervention programs for those students.

One of the important findings of this study is that female students reported higher perceived stress than male students. This finding reveals that female students need special attention to help them cope with the stress. Same-gender mentorship might be helpful to reduce stress among female students. Counseling centers might offer long-term mentoring opportunities to those students. Mentors who experienced similar stressors in the past can be good role models for mentees. For instance,

students reported that financial difficulties increase their stress level. A mentor can help those students learn about different financial support opportunities such as part-time jobs or alternative scholarships. A mentor can also teach strategies to help students navigate through the different levels of a graduate degree such as taking qualification exams or writing the dissertation.

5.3. Recommendations for Further Research

Further studies should consider the following points:

1. This study revealed a model that predicts the perceived stress of Turkish graduate students. The final model can be tested in further studies with structural equation models.
2. This study measured the predictors of perceived stress quantitatively. It would be helpful to examine the factors that affect the perceived stress of Turkish graduate students in the United States more deeply. Thus, qualitative studies with similar populations would be helpful. For instance this study showed that females reported higher perceived stress than men. Further studies could concentrate on the reasons that explain why levels of stress among females may be higher than levels of stress among men (i.e., gender role change).
3. A similar study could be conducted with the spouses of Turkish graduate students in the United States. In general, the spouses of students are not students, do not work in the US, and spend their time in the home. They are usually more isolated from the host society than their wives or husbands. Thus, they might perceive stress differently.

4. Longitudinal studies would be helpful to show how perceived stress might change over time. This study indicated that the stage of graduate study (taking classes, taking qualification exams, or writing a thesis/dissertation) is a significant predictor of perceived stress. Longitudinal studies might show how stress changes throughout these stages from the beginning of graduate school to graduation.

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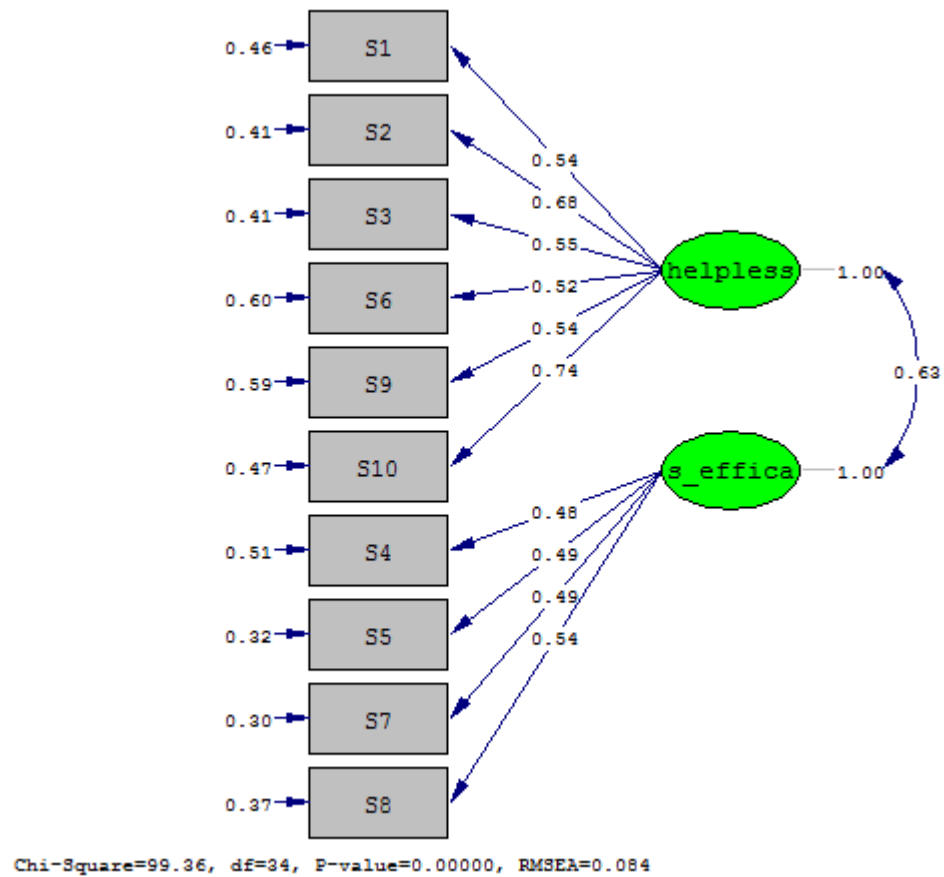
APPENDICES

APPENDIX A

PATH DIAGRAMS FOR QUESTIONNAIRES

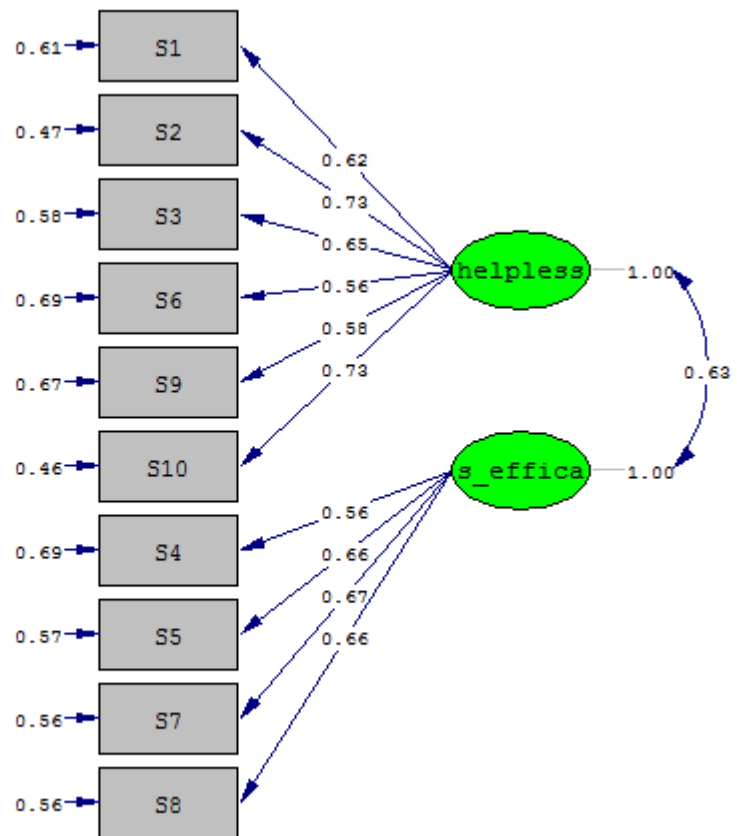
A.1. Figure 1

Estimates for Perceived Stress Scale-10



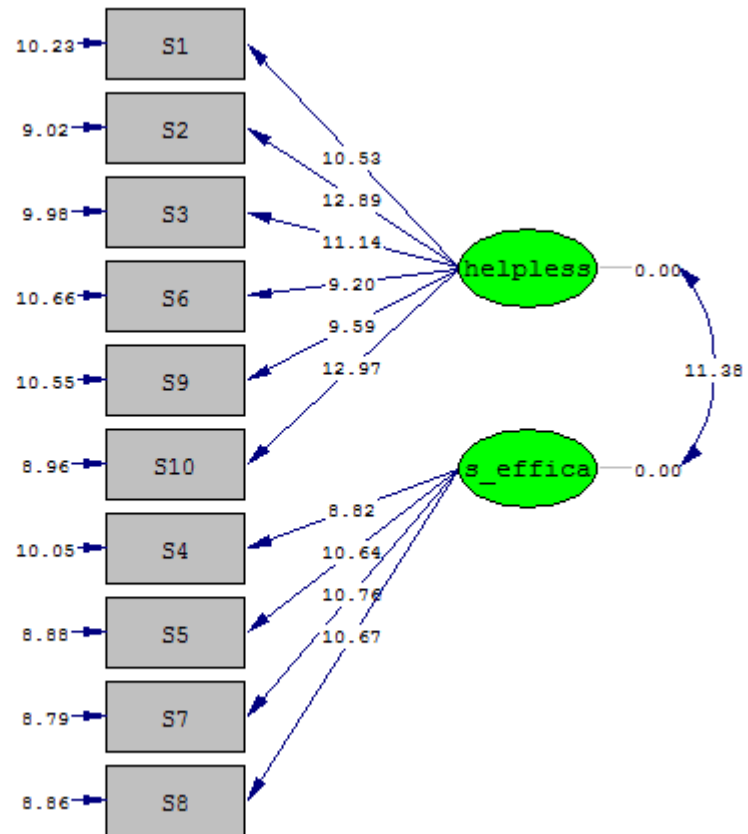
A.2. Figure 2

Standardized Solutions for Perceived Stress Scale-10



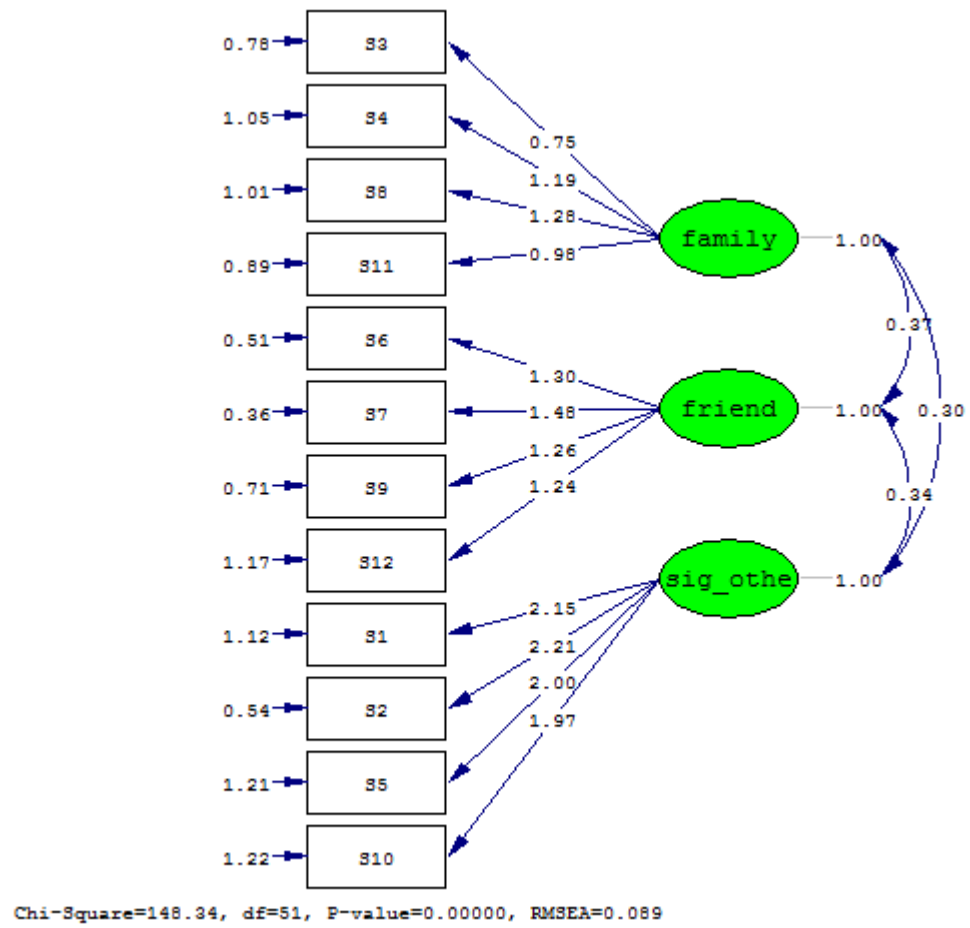
A.3. Figure 3

T-values for Perceived Stress Scale-10



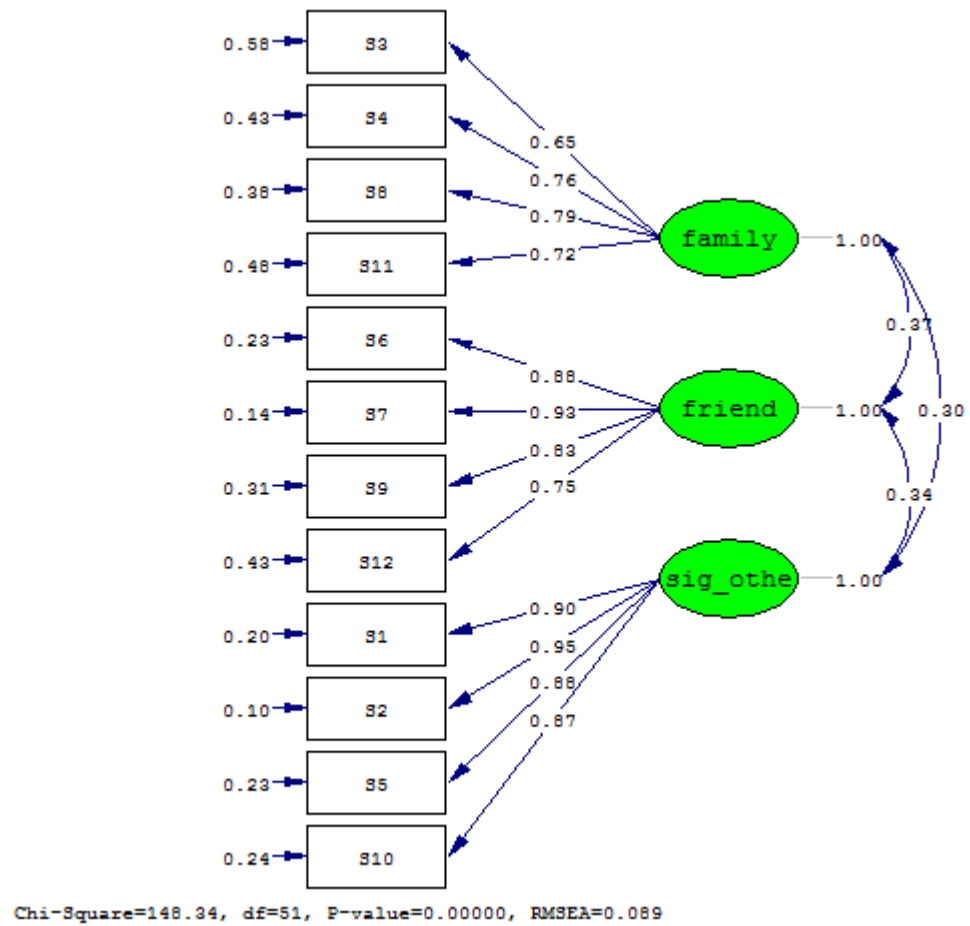
A.4. Figure 4

Estimates for Multidimensional Scale of Perceived Social Support



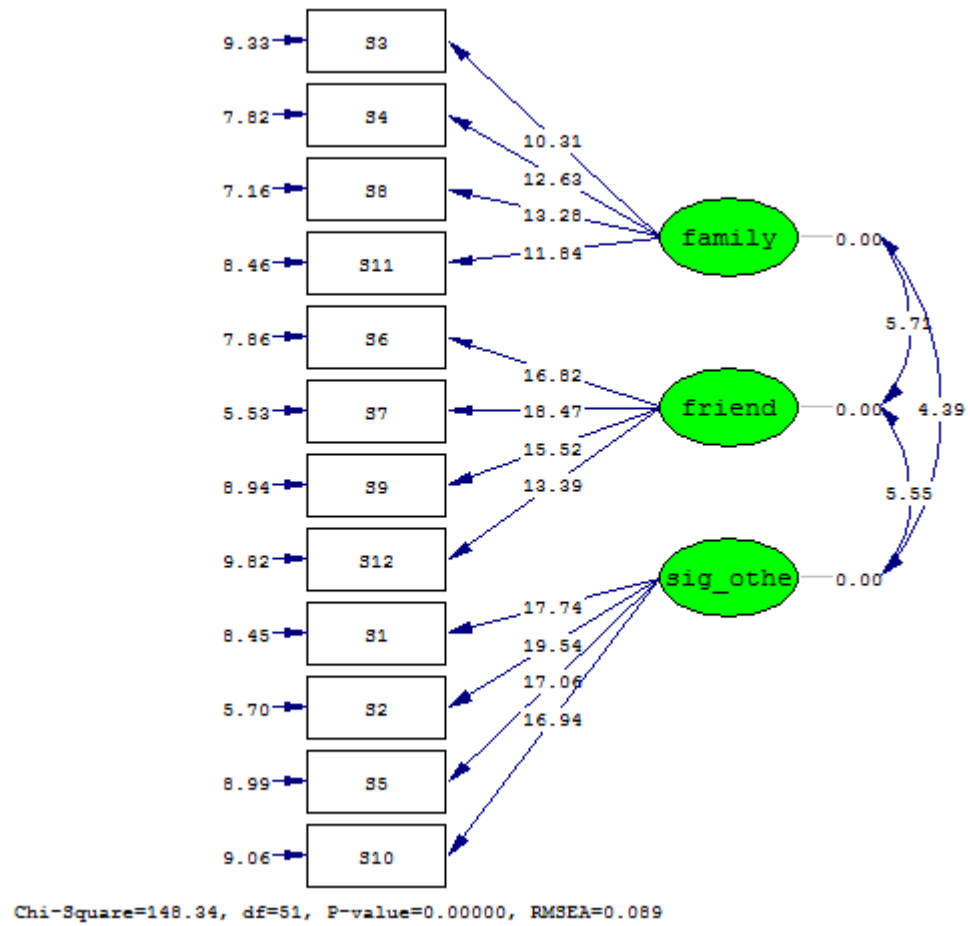
A.5. Figure 5

Standardized Solutions for Multidimensional Scale of Perceived Social Support

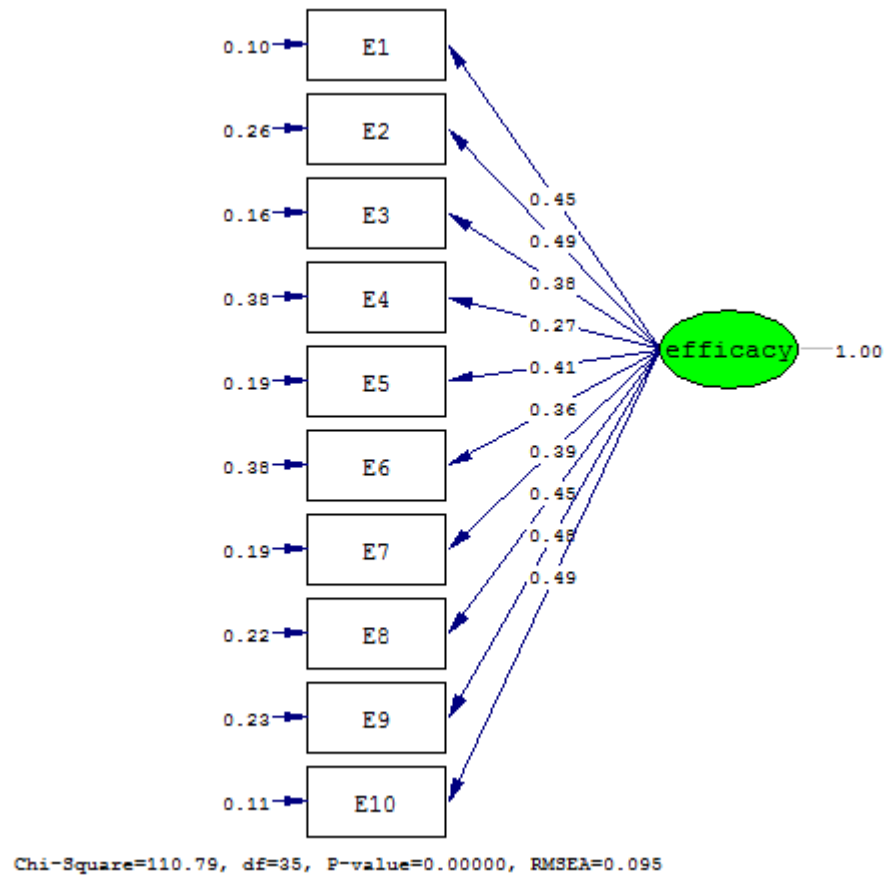


A.6. Figure 6

T-values for Multidimensional Scale of Perceived Social Support

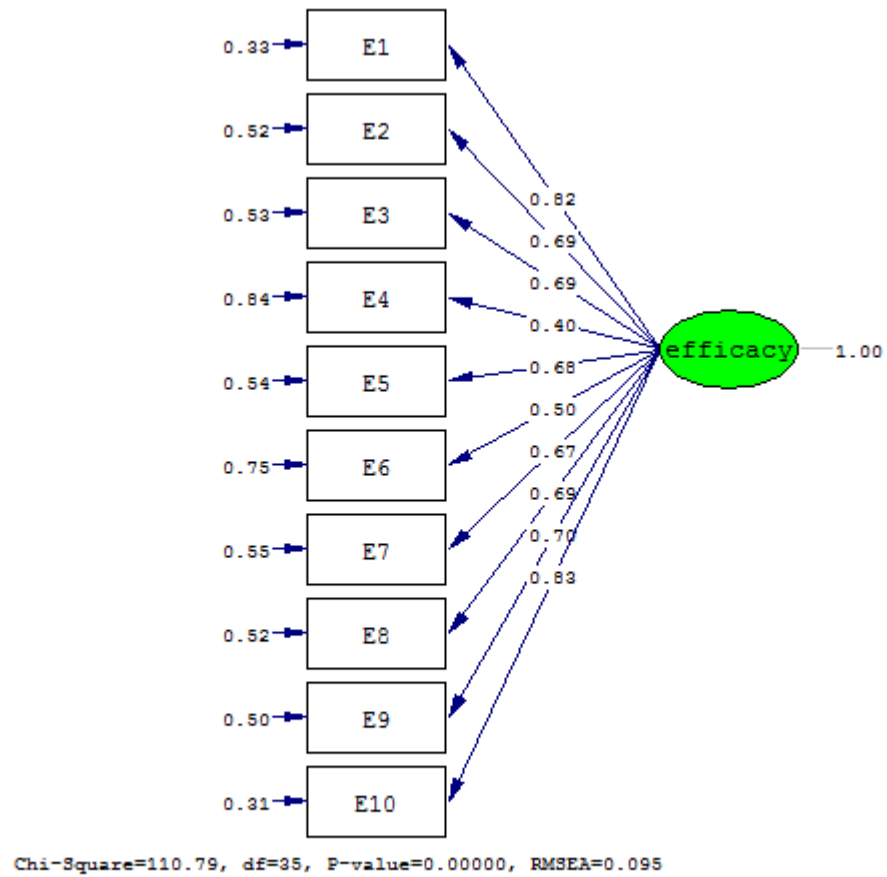


A.7. Figure 7
Estimates for Academic Self-Efficacy Scale

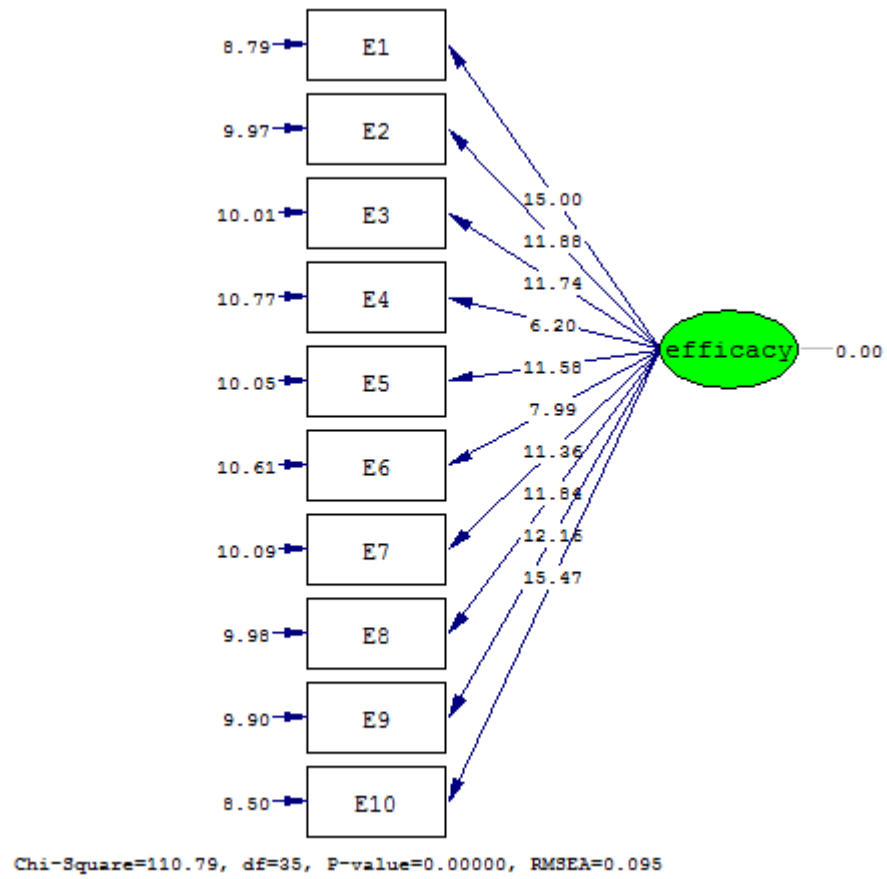


A.8. Figure 8

Standardized Solutions for Academic Self-Efficacy Scale



A.9. Figure 9
T-values for Academic Self-Efficacy Scale



APPENDIX B

DEMOGRAPHIC INFORMATION FORM

Değerli Katılımcı,

Bu akademik çalışma, Amerika’da yaşayan Türk lisansüstü öğrencilerin algılanan stres düzeylerini yordayan faktörler hakkında bilgi toplamak amacıyla yapılmaktadır. Sizden istenen, verilen yönergeleri dikkatle okuyarak soruları yanıtlamanızdır. Sorulara vereceğiniz tüm yanıtlar gizli tutulacak ve bu çalışmadan elde edilen veriler bireysel kimlik bilgileriniz olmaksızın grup olarak değerlendirilecektir. Bu nedenle ölçeğin üzerine isminizi yazmanız gerekmemektedir. Lütfen tüm soruları doğru, açık ve samimi bir şekilde yanıtlayınız. Hiçbir soruyu boş bırakmayınız. Çalışma için ayıracağınız zaman ve katkılarınızdan dolayı şimdiden teşekkür ederim.

Nur Çayırdağ
Orta Doğu Teknik Üniversitesi
Eğitim Bilimleri Bölümü
Doktora Öğrencisi

1. Cinsiyetiniz: K () E ()

2. Yaşınız:

3. Medeni Durumunuz: Bekar () Evli () Nişanlı/Sözlü () Dul ()

4. Çocuklarınızın sayısı:

5. Şu an eğitim gördüğünüz üniversite:

6. Kayıtlı olduğunuz program/bölüm:

7. Şu anki eğitim durumunuz: Yüksek lisans () Doktora ()

8. Programdaki aşamanız:

Ders aşamasındayım () Yeterliğe hazırlanıyorum () Tez aşamasındayım ()

9. ABD’deki eğitim öğretim masraflarınızın çoğunluğunu ne şekilde karşılıyorsunuz:

Ailem destekliyor ()

Kendim karşılıyorum ()

TC Milli Eğitim Bakanlığı / YÖK destekliyor ()

Eğitim gördüğüm üniversiteden burs alıyorum ()

Üniversitede asistan olarak görev yapıyorum ()

ABD’de bir kişi ya da kurum tarafından destekleniyorum ()

Türkiye’den MEB/YÖK dışında bir kişi ya da kurum tarafından destekleniyorum
(Lütfen belirtiniz):

Diğer (Lütfen belirtiniz):

10. Gelir düzeyinizi ABD’de yaşamak ve lisansüstü eğitiminize devam etmek için yeterli buluyor musunuz? Evet () Hayır ()

11. Bir işte çalışıyor musunuz?

Tam zamanlı () Yarı zamanlı () Çalışmıyorum ()

12. Çalışıyorsanız ne iş yapıyorsunuz?

13. Yaşadığınız yer:

Ailem ile birlikte ()

Tek başıma evde ()

Türk arkadaşla evde ()

ABD’li ya da farklı bir milletin arkadaşla birlikte evde ()

Yurtta ()

Diğer (Lütfen belirtiniz):

14. ABD’ye gelmeden önce yurtdışında bulundunuz mu? Evet () Hayır ()

15. Amerika’ya gelemenden önceki İngilizce düzeyiniz sizce nasıldı?

Çok iyi () İyi () Orta () Kötü () Çok kötü ()

16. En son girdiğiniz TOEFL sınav puanınızı yazınız:

17. Şu an İngilizcenizi ABD’de yaşamak ve lisansüstü eğitiminizi takip etmek için yeterli buluyor musunuz? Evet () Hayır ()

18. Kaç aydır Amerika’dasınız?

APPENDIX C

PERCEIVED STRESS SCALE

Aşağıda **geçen son ay** içindeki duygu ve düşünceleriniz hakkında çeşitli sorular yer almaktadır. Sizden her bir soruda, tarif edilen duygu veya düşünceyi 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 yanıt vermeniz istenmektedir. Bu amaçla her soruyu hızlı bir şekilde düşünerek yanıtlamanız uygun olacaktır. Tarif edilen duygu veya düşünceyi geçen ay boyunca kaç kere hissettiğinizi saymak yerine, verilen alternatiflerden size en uygun gelen seçeneği işaretlemeniz istenmektedir.

	Hiç	Neredeyse hiç	Bazen	Oldukça sık	Cok sık
1) Geçen ay içinde hangi sıklıkla beklenmedik bir olaydan dolayı kendinizi üzgün hissettiniz?	①	①	②	③	④
2) Geçen ay içinde, hangi sıklıkta yaşamınızdaki önemli şeyleri kontrol edemediğinizi hissettiniz?	①	①	②	③	④
3) Geçen ay içinde hangi sıklıkta kendinizi stresli hissettiniz?	①	①	②	③	④
4) Geçen ay içinde, hangi sıklıkla kişisel problemlerinizi ele alma beceriniz konusunda kendinize güvendiğinizi hissettiniz?	①	①	②	③	④
5) Geçen ay içinde, hangi sıklıkla işlerin istediğiniz yönde gittiğini hissettiniz?	①	①	②	③	④
6) Geçen ay içinde, hangi sıklıkla kendinizi yapmanız gereken şeylerle başa çıkamaz durumda buldunuz?	①	①	②	③	④

7) Geçen ay içinde, hangi sıklıkla hayatınızdaki sinir bozucu şeyleri kontrol edebildiğinizi hissettiniz?	①	①	②	③	④
8) Geçen ay içinde, hangi sıklıkla her şeyin üstesinden geldiğinizi düşündünüz?	①	①	②	③	④
9) Geçen ay içinde, hangi sıklıkla kontrolünüzün dışında gerçekleşen olaylardan dolayı kızgınlık hissettiniz?	①	①	②	③	④
10) Geçen ay içinde, hangi sıklıkla zorlukların, üstesinden gelemeyeceğiniz boyutlara ulaştığını hissettiniz?	①	①	②	③	④

APPENDIX D

PERCEIVED SOCIAL SUPPORT SCALE

Aşağıda 12 cümle ve her bir cümle altında da cevaplarınızı işaretlemeniz için 1'den 7'ye kadar rakamlar verilmiştir. Her cümlede söylenenin sizin için ne kadar çok doğru olduğunu veya olmadığını belirtmek için o cümle altındaki rakamlardan yalnız bir tanesini işaretleyiniz. Lütfen hiçbir cümleyi cevapsız bırakmayınız. Sizce doğruya en yakın olan rakamı işaretleyiniz.

1. Ailem ve arkadaşlarım dışında olan ve ihtiyacım olduğunda yanımda olan bir insan (örneğin; flört, nişanlı, akraba, komşu, doktor) var. Kesinlikle hayır ① ② ③ ④ ⑤ ⑥ ⑦ Kesinlikle evet
2. Ailem ve arkadaşlarım dışında olan ve sevinç ve kederlerimi paylaşabileceğim bir insan (örneğin; flört, nişanlı, akraba, komşu, doktor) var. Kesinlikle hayır ① ② ③ ④ ⑤ ⑥ ⑦ Kesinlikle evet
3. Ailem (örneğin; annem, babam, eşim, çocuklarım, kardeşlerim) bana gerçekten yardımcı olmaya çalışır. Kesinlikle hayır ① ② ③ ④ ⑤ ⑥ ⑦ Kesinlikle evet
4. İhtiyacım olan duygusal yardımı ve desteği ailemden (örneğin; annemden, babamdan, eşimden, çocuklarımdan, kardeşlerimden) alırım. Kesinlikle hayır ① ② ③ ④ ⑤ ⑥ ⑦ Kesinlikle evet
5. Ailem ve arkadaşlarım dışında olan ve beni gerçekten rahatlatan bir insan (örneğin; flört, nişanlı, akraba, komşu, doktor) var. Kesinlikle hayır ① ② ③ ④ ⑤ ⑥ ⑦ Kesinlikle evet
6. Arkadaşlarım bana gerçekten yardımcı olmaya çalışırlar. Kesinlikle hayır ① ② ③ ④ ⑤ ⑥ ⑦ Kesinlikle evet
7. İşler kötü gittiğinde arkadaşlarıma güvenilebilirim. Kesinlikle hayır ① ② ③ ④ ⑤ ⑥ ⑦ Kesinlikle evet
8. Sorunlarımı ailemle (örneğin; annemle, babamla, eşimle, çocuklarımla, kardeşlerimle) konuşabilirim. Kesinlikle hayır ① ② ③ ④ ⑤ ⑥ ⑦ Kesinlikle evet

9. Sevinç ve kederlerimi paylaşabileceğim arkadaşlarım var. Kesinlikle hayır ① ② ③ ④ ⑤ ⑥ ⑦ Kesinlikle evet
10. Ailem ve arkadaşlarım dışında olan ve duygularıma önem veren bir insan (örneğin; flört, nişanlı, akraba, komşu, doktor) var. Kesinlikle hayır ① ② ③ ④ ⑤ ⑥ ⑦ Kesinlikle evet
11. Kararlarımı vermede ailem (örneğin; annem, babam, eşim, çocuklarım, kardeşlerim) bana yardımcıyı olmaya isteklidir. Kesinlikle hayır ① ② ③ ④ ⑤ ⑥ ⑦ Kesinlikle evet
12. Sorunlarımı arkadaşlarımla konuşabilirim. Kesinlikle hayır ① ② ③ ④ ⑤ ⑥ ⑦ Kesinlikle evet

APPENDIX E

ACADEMIC SELF-EFFICACY SCALE

Aşağıda eğitiminiz ile ilgili çeşitli durumlar verilmiştir. Her bir ifadeyi dikkatlice okuyunuz ve belirtilen durumu gerçekleştirme konusunda kendinize ne ölçüde güvendiğinizi işaretleyiniz.

	Yetersiz	Biraz yeterli	Çok yeterli
1. Yüksek lisans/doktora öğrenimimi tamamlama konusunda güvenim	①	②	③
2. Yüksek lisans/ doktora öğrenimimi zamanında tamamlama konusunda güvenim	①	②	③
3.Yüksek lisans/ doktora öğrenimimi kayıtlı olduğum üniversitede tamamlama konusunda güvenim	①	②	③
4. Lisansüstü harcamalarımı karşılayabilme konusunda güvenim	①	②	③
5. Yüksek lisans/doktora eğitimimin gereklilikleri hakkındaki bilgime olan güvenim	①	②	③
6. Okul yaşamı ve özel yaşam arasındaki dengeyi sağlayabilme becerime olan güvenim	①	②	③
7. Derslerimin gereklilikleri ile başa çıkabileceğime olan güvenim	①	②	③
8. Araştırma yapabilme yeterliğime olan güvenim	①	②	③
9. Lisansüstü eğitimimle ilgili stresin üstesinden gelebilme becerime olan güvenim	①	②	③
10. Kayıtlı olduğum programda başarılı olacağıma güvenim	①	②	③

APPENDIX F

TÜRKÇE ÖZET

GİRİŞ

Artan iletişim olanakları ve göçler günümüzde toplumların eskisine oranla çok daha çeşitli olmasına fırsat sunmuştur. Özellikle kendi ülkeleri dışındaki ülkelere eğitim görmek için giden öğrenciler bu çeşitliliğin büyük bir kısmını oluşturmaktadırlar. Türk öğrenciler de her geçen yıl artan oranlarda yurtdışına eğitim öğretim görmek için gitmektedirler. Türk öğrencilerin yabancı ülke tercihlerinde ilk sırada Amerika Birleşik Devletleri gelmektedir. Türk öğrenciler bu ülkeyi genellikle lisans sonrası eğitim için tercih etmektedirler. Milli Eğitim Bakanlığı'nın istatistiklerine göre 2011 yılında yurtdışına lisansüstü eğitim görmeye giden 5265 öğrencinin 2272'si Amerika Birleşik Devletlerine gitmiştir. Amerika Birleşik Devletleri Uluslararası Eğitim Kurumu'nun 2011 raporlarına göre Türkiye, Amerika Birleşik Devletleri'ne en çok öğrenci gönderen ilk 25 ülke arasında 10. sıradadır.

Bir ülkede öğrenim gören yabancı öğrenciler, kendi durumlarına özgü stres oluşturan farklı olaylar ile karşılaşabilmektedirler. Bu öğrencilerin önemli bir kısmı kendi ülkeleri dışında bir ülkeye ilk defa uzun süreli kalmak için yerleşmektedirler. Sadece lisansüstü eğitimin gerektirdiği yeni beklentilerle değil aynı zamanda yeni bir çevrenin beklentileri ile de başetmek durumundadırlar. Yabancı bir dilde iletişim kurmanın zorlukları, sosyal destek eksikliği gibi faktörler de bu öğrenciler için stres kaynağı olabilmektedir.

Lazarus ve Folkman'a (1984) göre bireylerin stres oluşturabilecek bir duruma karşı tepkilerini belirleyen bireysel ve durumsal etkenler vardır. Bireysel

etkenler bağıllık ve öz yeterliktir. Bağıllık bir durumun kişi için ne kadar önemli olduğudur. Bağıllığın derecesi stresin derecesi ile ilişkilidir. Yüksek düzeyde bir bağıllık stresi artırabileceği gibi azaltabilir de. Öz yeterlik bireyin bir zorlukla karşılaştığında onunla başedebilme yetisine olan inancıdır. Eğer birey kendisini zorlukla başatme noktasında yeterli görürse durumu kontrol edebileceğine inanır ve daha az stres yaşar (Lazarus & Folkman, 1984). Akademik ortamlarda genel öz yeterlik yerine akademik öz yeterliğin incelenmesi daha yerinde olacağı düşünülmektedir (Zajacova et al., 2005; Zimmerman, 2000). Akademik öz yeterlik kişilerin verilen bir akademik görevi başarıyla yerine getirebileceklerine olan inançlarıdır (Schunk, 1991). Chemers, Hu ve Garcia'ya (2001) göre akademik öz yeterlik, akademik performans ve akademik beklentilerle doğrudan; stres, sağlık, doyum ve okulda kalma konusundaki ısrar ile dolaylı ilişkilidir.

Durumsal etkenler; yenilik, zamansal etkenler, belirsizlik, ve stres oluşturabilecek durumun yaşam döngüsündeki zamanlamasıdır. Yeni bir durum kimi zaman bireyde strese sebep olabilir çünkü bireyler geçmiş başatme becerilerinin yeni durum için etkili olup olmayacağını bilmiyorlardır. Bazen de yeniliğin kendisi değil ancak o durum hakkında başkalarından öğrenilen deneyimler durumun stres verici olarak algılanmasına sebep olabilir (Lazarus & Folkman, 1984). Zamansal etkenler, bir olayın meydana gelmesinden önce ya da olayın meydana gelişi sırasında geçen zamanı ifade eder. Eğer bir tehlike olabileceğine dair ipucu varsa olaydan önce geçen zamanın uzunluğu stresi artırır. Öte yandan bazı bireyler için olaydan önce geçen zamanın uzunluğu yeni başatme becerilerinin geliştirilmesi için olanak sunabilir. Böyle durumlarda olaydan önce geçen zamanın uzunluğu stresi azaltır. Benzer bir durum stres anında geçen zamanla da ilgilidir. Stres oluşturacak duruma

uzun süreli maruz kalmak stresi artırabileceği gibi kimi zaman bu sürenin uzaması alışmayı beraberinde getireceği için stresi azaltabilir (Lazarus & Folkman, 1984).

Durumsal faktörlerden üçüncüsü belirsizliktir. Eğer birey bir durum hakkında yeterli bilgiye sahip değilse bu belirsizlik strese sebep olabilir. Kimi zaman durum hakkında yeterli bilgi olsa da kişinin çevreyle çatışan değerlerinin ve amaçlarının belirsizliği de strese sebep olabilir. Öte yandan eğer kişi kendisine, değer ve amaçlarına güveniyorsa durum ne kadar belirsiz olursa olsun stres yaşamayabilir (Lazarus & Folkman, 1984).

Son olarak, stres oluşturabilecek durumun yaşam döngüsündeki zamanlaması da bireyin durumu algılayışını etkiler (Brown & Harris, 1978). Eğer bir olay alışılmış zamanlamadan çok önce ya da çok geç meydana gelirse strese sebep olabilir. Bu durum genellikle bireyin yeterli sosyal desteği görememesi ile ilgilidir. İkinci olarak, olayın normal meydana gelme süresindeki ertelenmeler alınacak doyumu etkileyeceği için stresi artırabilir. Son olarak eğer bir olay beklenen zamanından çok önce meydana gelirse gelecekte üstlenilebilecek yeni rolleri olumsuz yönde etkileyebilir (Lazarus & Folkman, 1984).

Bunlara ek olarak, bu çalışmada sosyal destek de stresi açıklayabilecek bir değişken olarak incelenmektedir. Farklı toplumların bireylerden farklı beklentileri vardır ve bu beklentilerin karşılanmaması kişilerde strese sebep olabilir. Bireyler de bu beklentiler karşılamak için farklı kaynaklar kullanırlar. Olumsuz yaşam olaylarının meydana getirebileceği strese karşı, sosyal destek önleyici bir rol oynayabilir. Genellikle diğer şartların eşit olduğu durumlarda kişiler ihtiyaç duyduklarında yanlarında olacağına inandıkları bir sosyal destek algısıyla daha moralli ve sağlıklı olabilmektedirler (Lazarus & Folkman, 1984).

Farklı grupların hayatında strese sebep olan faktörler de farklı farklıdır. Uluslararası lisansüstü öğrencileri de kendi durumlarına özgü, diğer gruplardan farklı stres oluşturan faktörlerle baş etmek durumundadırlar. Lazarus ve Folkman'a (1984) göre yeni bir ülkeye göç etmek bireyler için stres oluşturunca bir sebep olabilir çünkü yeni bir sosyal çevrenin bireyden yeni talepleri olabilir. Bu yeni talepler bireyde çatışmaya sebep olabilir. Uluslararası öğrenciler hem yeni sosyal çevrenin hem de lisansüstü eğitimin beklentileriyle aynı anda baş etmek zorunda kalmaktadırlar. Bu öğrenciler yeni geldikleri ülkenin dilini kullanma konusunda güçlük yaşayabilirler. Dil yetersizliği hem üniversitedeki öğretim görevlileri ile hem de arkadaşları ile kuracakları ilişkileri olumsuz yönde etkileyebilir. Bu öğrencilerin bir kısmı ailelerinden ya da ülkelerinden ilk defa ayrılmaktadırlar. Ayrıca eğer bu öğrencilerin çevrelerinde onlara destek olacak kişiler yoksa sosyal destek eksikliği sebebiyle daha çok stres yaşayabilirler.

Çalışmanın Amacı

Bu çalışma, Amerika Birleşik Devletleri'nde lisansüstü öğrenim görmekte olan Türk öğrencilerin algılanan stres düzeylerini Stresin Bilişsel Değerlendirmesi Kuramı'na göre incelemeyi amaçlamaktadır. Çalışmada şu değişkenler sınanmıştır: algılanan sosyal destek, akademik öz-yeterlik, Amerika'da geçirilen süre, cinsiyet, yaş, programda bulunulan aşama, eğitimin maddi olarak nasıl desteklendiği (sponsor), algılanan gelir düzeyi, geçmiş yolculuk deneyimi, TOEFL puanı, ve algılanan İngilizce yeterliği. Ayrıca bu çalışma Amerika Birleşik Devletleri'nde lisansüstü öğrenim görmekte olan Türk öğrencilerin algılanan stres düzeylerinin evlilik durumu, öğrenime devam edilen bölüm, öğrenime devam edilen derece

(yüksek lisans ya da doktora), çalışma durumu ve yaşanılan yere göre farklılaşıp farklılaşmadığını incelemeyi de amaçlamıştır.

Araştırma Soruları

Çalışmada aşağıdaki araştırma sorularına cevap aranmaktadır:

1. Algılanan sosyal destek, akademik öz-yeterlik, Amerika’da geçirilen süre, cinsiyet, yaş, programda bulunulan aşama, eğitimin maddi olarak nasıl desteklendiği (sponsor), algılanan gelir düzeyi, geçmiş yolculuk deneyimi, TOEFL puanı, ve algılanan İngilizce yeterliği Amerika Birleşik Devletleri’nde lisansüstü öğrenim görmekte olan Türk öğrencilerin algılanan stres düzeylerini ne ölçüde yordamaktadır?

1.1.Amerika Birleşik Devletleri’nde lisansüstü öğrenim görmekte olan Türk öğrencilerin algılanan stres düzeylerini anlamlı bir şekilde yordayan değişkenlerin modele bireysel katkıları ne düzeydedir?

1.2.Algılanan sosyal destek, cinsiyet, programda bulunulan aşama, eğitimin maddi olarak nasıl desteklendiği (sponsor), algılanan gelir düzeyi ve algılanan İngilizce yeterliği, Amerika Birleşik Devletleri’nde lisansüstü öğrenim görmekte olan Türk öğrencilerin algılanan stres düzeylerini en güçlü açıklayan değişken olan akademik öz yeterliği ne ölçüde yordamaktadır?

2. Öğrencilerin, stres ölçeğinin alt boyutları olan algılanan öz yeterlik ve algılanan çaresizlik düzeyleri; evlilik durumu, öğrenime devam edilen bölüm, öğrenime devam edilen derece (yüksek lisans ya da doktora), çalışma durumu ve yaşanılan yere göre fark göstermekte midir?

Çalışmanın Önemi

Stres öğrencilerin iyi oluşlarını ve akademik başarılarını etkileyen en önemli faktörlerden biridir. Üniversite öğrencileri, başarılarının önündeki en önemli engel olarak stresi rapor etmişlerdir (American College Health Association, 2007).

Lisansüstü eğitim öğrencileri, uyum problemleri, sosyal rollerin çakışması, maddi problemler gibi kendilerine özgü stres oluşturabilecek durumlarla başetmek zorunda kalabilmektedirler.

Her ne kadar Amerika Birleşik Devletleri'ndeki Türk öğrencilerin uyum süreçleri ile ilgili yapılan çalışmalar bulunsada bu öğrencilerin stresi nasıl algıladıkları ile ilgili yeterli çalışma yoktur. Bu çalışma, bu grubun stres algısını hem bireysel hem de durumsal faktör çerçevesinde inceleyerek geniş bir bakış açısı sunmaktadır. Tabiki tek bir çalışmanın bu öğrencilerin stres algısını tamamiyle açıklaması beklenemez ancak yine de sunulan model ile alan yazına önemli bir katkı sağlanacağı düşünülmektedir. Sonraki çalışmalar bu çalışmada ortaya konan modelden yola çıkarak konu ile ilgili farklı gruplarda kapsamlı araştırmalar yapabileceklerdir.

Bu öğrencilerin stres düzeylerini etkileyen faktörlerin bilinmesi problemler henüz oluşmadan ortaya konabilecek önleyici rehberlik çalışmalarına ışık tutacaktır. Bu çalışma bu gruplara yönelik geliştirilebilecek stres önleme programları için bir ihtiyaç analizi niteliği taşımaktadır.

Kullanılan Terimlerin Açıklamaları

Algılanan Stres: Eğer bireyler bir durum karşısında çevrenin taleplerinin kendi kaynaklarını aştığını düşünürlerse o durumu stresli olarak algırlar (Lazarus &

Folkman, 1984). Bu yüzden aynı durum bir kişi için stresliyen bir başkası için stresli olmayabilir.

Algılanan Sosyal Destek: Bireyin yardıma ihtiyacı olduğunda çevresinde ona gerekli yardımı yapacak kişilerin olduğuna inancıdır (Sarason, Sarason, & Pierce, 1990).

Akademik Öz-yeterlik: Bir kişinin söz konusu bir akademik çalışmayı başarıyla tamamlayabileceğine olan inancıdır (Schunk, 1991).

Çalışmanın Sınırlılıkları

Bu çalışmanın sonuçları yorumlanırken göz önünde tutulması gereken bazı sınırlılıkları vardır. Öncelikle, çalışmanın katılımcıları gelişigüzel örnekleme yöntemi ile seçilmemiştir. Bu sebeple sonuçların genellenebilirliği sınırlıdır. İkinci olarak, veriler internet üzerinden toplandığı için katılımcıların soruları cevaplarırkenki tepkileri gözlemlenememiştir. Ayrıca ancak internet erişimi olan ve kendisini internet üzerinden ölçek cevaplama konusunda rahat hisseden katılımcılara ulaşılabilmektedir. Yine de çalışma grubunun özelliği göz önünde bulundurulduğunda, internete erişimin en az düzeyde sorun olacağı düşünülebilir. Son bir sınırlılık da seçilen değişkenlerle ilgilidir. Çalışmanın sonuçları ancak modeli test etmek için seçilen değişkenler ile sınırlıdır.

YÖNTEM

Bu kısımda çalışmanın örnekleme, kullanılan ölçme araçları ve verilerin analizi hakkında bilgi verilecektir.

Örnekleme

Çalışmanın örneklemini Amerika Birleşik Devletleri'nde 70 farklı üniversitede lisansüstü eğitim gören 276 Türk öğrenci oluşturmaktadır.

Katılımcıların %50.7'si erkek, %49.3'ü ise kadındır. Katılımcıların yaşları 21 ile 39

arasında değişmektedir. Ortalama yaş ise 26.76'dır. Örneklemin %29.3'ü evli, %8'i nişanlı, %1.1'i dul, %61.6'si bekar. Ayrıca %4.3'ü bir, %2.2'si ise iki ya da daha fazla çocuk sahibidir. Evli katılımcıların %93.1'inin çocuğu yoktur. Katılımcıların %65.9'u gelirini Amerika Birleşik Devletleri'nde yaşamak için yeterli görürken %33.7'si yetersiz görmektedir.

Bölüm olarak incelendiğinde %58.3'ünün sayısal, %34.4'ünün sözel bölümlerde, %47.5'inin yüksek lisans, %51.4'ünün ise doktora öğrencisi olduğu görülmektedir. Bu öğrencilerin %45.3'ü ders aşamasında, %8.3'ü yeterliğe hazırlanmakta, %44.2'si ise tez yazmaktadır.

Çalışmaya katılan öğrencilerin %37'si Türk arkadaşları ile birlikte evde, %18.5'i yalnız, %28.3'ü ailesi ile birlikte, %6.2'si Amerikalı bir arkadaşı ile birlikte, %5.8'i Amerika dışından bir milletten arkadaşı ile birlikte, ve %4.3'ü de yurttan yaşamaktadır.

Öğrencilerin Amerika Birleşik Devletleri'ne gelmeden önceki İngilizce yeterliklerini nasıl algıladıkları sorulduğunda %23.6'si oldukça iyi, %38.4'ü iyi, %27.5'i orta, 58.7'si kötü ve 51.8'i çok kötü şeklinde yanıt vermiştir. Şu anki İngilizce yeterlikleri sorulduğunda ise %90.9'u İngilizcesinin iyi olduğunu belirtmiştir.

Öğrencilerin %49.3'ü Amerika Birleşik Devletleri'ne gelmeden önce başka yabancı ülkelere yolculuk yaptıklarını söylerken, %50.7'si yurtdışına ilk çıkışının Amerika Birleşik Devletleri'ne eğitim amaçlı gelişleri olduğunu söylemiştir. Katılımcıların Amerika Birleşik Devletleri'ndeki kalış süreleri 1 ay ile 120 ay arasında değişmektedir ve ortalama süre 34 aydır.

Veri Toplama Araçları

Çalışmada veri toplamak için dört ölçme aracı kullanılmıştır. Bunlar, Demografik Bilgi Formu, Algılanan Stres Ölçeği, Çokboyutlu Algılanan Sosyal Destek Ölçeği, Akademik Öz Yeterlik Ölçeği'dir.

1. Demografik Bilgi Formu

Örneklemin özellikleri ile ilgili 18 soru içermektedir. Bu sorular, katılımcıların yaşı, cinsiyeti, medeni durumu, çocuk sayısı, eğitim gördükleri üniversite ve bölüm, eğitimlerine devam etmelerini sağlayan maddi destek, yaşadıkları yer, önceki yolculuk deneyimleri, Amerika'da ne kadar kaldıkları ve dil yeterlikleri ile ilgili soruları içermektedir.

2. Algılanan Stres Ölçeği-10 Maddeli Formu

Ölçek; Cohen, Kamarck ve Mermelstein (1983) tarafından kişilerin stresli yaşam olaylarını nasıl değerlendirdiklerini ölçmek amacıyla geliştirilmiştir. Maddeler kişilerin son bir ay içerisinde karşılaştıkları olayları ne düzeyde tahmin edilemez, kontrol edilemez ve başatması güç buldukları ile ilgili soruları içermektedir. Ölçekten alınabilecek puan 0 ile 40 arasında değişmektedir ve ölçekteki 4 madde (4, 5, 7 ve 8. maddeler) tersine puanlanmaktadır. Ölçeğin ilk geliştirildiğindeki iç tutarlık katsayısı .75 ile .86 arasında değişmektedir.

Ölçeğin Türkçe formu Çelik-Örücü ve Demir (2009) tarafından geliştirilmiştir. Açımlayıcı ve doğrulayıcı faktör analizleri sonucunda ölçek iki boyuttan oluşmaktadır. Algılanan çaresizlik boyutu 6, algılanan öz yeterlik boyutu ise 4 maddeden oluşmaktadır. Birinci boyut toplam varyansın %42.66'sini, ikinci boyut ise %13.57'sini açıklamaktadır. Ölçeğin genelinin güvenirlik katsayısı .84'tür. Bu çalışmanın örneklemini ile yapılan açımlayıcı ve doğrulayıcı faktör analizi

sonuçları orjinal Türkçe çalışma ile tutarlık göstermiştir. Ölçeğin genelinin iç tutarlık katsayısı ise .83 bulunmuştur.

3. Çok Boyutlu Algılanan Sosyal Destek Ölçeği

Ölçek; Zimet, Dahlem, Zimet ve Farley (1988) tarafından bireylerin aileleri, arkadaşları ve yaşamlarındaki özel birinden aldıkları sosyal desteğin yeterliğini öznel olarak nasıl değerlendirdiklerini ölçmek amacıyla geliştirilmiştir. Ölçekte toplam 12 madde vardır ve her bir boyut (aileden alınan algılanan sosyal destek, arkadaşlardan alınan algılanan sosyal destek, aile ve arkadaşlar dışında özel birisinden alınan algılanan sosyal destek) 4 maddeden oluşmaktadır. Ölçeğin ilk geliştirildiğindeki güvenirlik katsayısı .88'dir. Test-tekrar test güvenirlik katsayısı ise .85'tir.

Ölçek Türkçe'ye Eker, Arkar ve Yıldız (2001) tarafından uyarlanmıştır. Türkçe formun geçerlik katsayısı .75'tir. Aile alt boyutu toplam varyansın %45'ini, aile ya da arkadaşlar dışında özel birisi alt boyutu toplam varyansın %17.9'unu ve arkadaş alt boyutu toplam varyansın %12.4'unu açıklamaktadır. Bu çalışma için yapılan geçerlik ve güvenirlik analizlerinde de benzer sonuçlar elde edilmiştir. Bu çalışmada ölçeğin geçerlik katsayısı .87 olarak bulunmuştur. Açımlayıcı ve doğrulayıcı faktör analizleri ise 3 boyutlu yapıyı desteklemiştir.

4. Akademik Öz Yeterlik Ölçeği

Santiago ve Einarson (1998) tarafından geliştirilen ölçek, lisansüstü eğitim öğrencilerinin dereceleri ile ilgili çeşitli konulardaki kendilerine güven derecelerini ölçmektedir. Ölçeği oluşturan 12 madde de tek bir boyut altında toplanmıştır. Ölçekten alınabilecek puan 0 ile 20 arasında değişmektedir. Orjinal ölçeğin iç tutarlık katsayısı .80'dir.

Ölçek Türkçe'ye Atik, Çayırdağ, Demirli, Kayacan ve Aydın (2008) tarafından uyarlanmıştır. Türkçe formun güvenirlik katsayısı .84'tür. Bu çalışma için yapılan geçerlik ve güvenirlik çalışmalarında ise güvenirlik katsayısı .89 olarak bulunmuştur ve tek faktörlü yapı desteklenmiştir.

Veri Toplama Süreci

Orta Doğu Teknik Üniversitesi etik kurulundan çalışma izninin alınmasının ardından internet üzerinde oluşturulan ve ölçekleri içeren bağlantı, Amerika Birleşik Devletleri'ndeki üniversitelerin Türk öğrenci derneklerine elektronik posta ile gönderilmiştir. Derneklerin çalışmaya katılmaya gönüllü olan üyeleri, elektronik postada gönderilen bağlantıya tıklayarak ölçeklere ulaşmışlardır. Ölçekleri cevaplamayı bitirdiklerinde 'gönder'e tıklayarak yanıtladıkları ölçekleri yanıt havuzuna gönderebilmektedirler. Araştırmacı gelen tüm ölçekleri internet adresine bir kullanıcı adı ve şifre ile girerek görebilmektedir. Araştırmacı, katılımcıların verdiği yanıtlar dışında herhangi bir kişisel bilgiye ulaşamamaktadır. İlk etapta 347 kişi ölçekleri cevaplamıştır ancak 71 katılımcının bir ya da daha fazla ölçeği tamamen boş bırakmasından dolayı onların yanıtları çıkarılmıştır ve çalışma 276 katılımcı ile tamamlanmıştır.

Verilerin Analizi

İlk olarak, çalışmada kullanılan ölçeklerin bu çalışmanın örneklemini için geçerlik ve güvenirlik analizleri yapılmıştır. Ölçeklerin yapı geçerliği için açımlayıcı ve doğrulayıcı faktör analizleri yapılmıştır. Ölçeklerin güvenirliklerini göstermek için madde-toplam korelasyonları ve Cronbach alfa katsayıları hesaplanmıştır. Sonrasında örneklemin özelliklerini göstermek amacıyla tanımlayıcı istatistikler yapılmıştır.

Algılanan sosyal desteğin, akademik öz yeterliğin, Amerika Birleşik Devletleri'nde geçirilen sürenin, cinsiyetin, yaşı, programda bulunulan aşamanın, eğitimin maddi olarak nasıl desteklendiğinin (sponsor), algılanan gelir düzeyinin, geçmiş yolculuk deneyiminin, TOEFL puanının, ve algılanan İngilizce yeterliğinin algılanan stresi ne düzeyde yordadığının belirlenmesi için çoklu regresyon analizi yapılmıştır. Analiz sonucunda hangi değişkenlerin algılanan stresi anlamlı düzeyde yordadığı görülmüştür. Anlamlı her bir değişkenin regresyon modeline ne düzeyde katkı sağladığını görmek için ileriye dönük aşamalı regresyon analizi yapılmıştır. Algılanan stres ölçeğinin iki alt boyutu için grup karşılaştırmaları çok boyutlu varyans analizi ile yapılmıştır. Bağımsız değişkenler olarak evlilik durumu, bölüm, devam edilen eğitim seviyesi, iş durumu ve yaşanan yer incelenmiştir. Evlilik durumu için demografik bilgi formunda evli, bekar, nişanlı ve boşanmış şeklinde dört kategori vardır. Nişanlı ve boşanmış cevabını veren kişilerin sayıca az olması sebebiyle bu kategoriler bekar kategorisine dahil edilmiştir. Bölüm için öğrencilerin devam ettikleri bölümler sözel ya da sayısal olarak gruplanmıştır. Devam edilen eğitim seviyesi yüksek lisans ya da doktora olarak iki kategori; çalışma durumları ise çalışıyor ya da çalışmıyor şeklinde iki kategoridir. Yaşanan yer için demografik bilgi formunda ailemle, Türk arkadaşla, Amerikan arkadaşla, başka bir milletten arkadaşla, yurttan ya da yalnız yaşıyorum kategorileri kullanılmıştır. Amerikalı arkadaşla, başka milletten arkadaşla ve yurttan seçenekleri az kişi tarafından tercih edildikleri için Türk olmayan bir arkadaşla yaşıyorum şeklinde gruplanmıştır.

Yapılan ileriye dönük aşamalı regresyon analizi sonucunda algılanan stresin en güçlü yordayıcısının akademik öz yeterlik olduğu görülmüştür. Akademik öz yeterliği daha ayrıntılı anlamak amacıyla bu değişkeni yordayan değişkenlerin

incelenmesi için yine çoklu regresyon analizi yapılmıştır. Analizde akademik öz yeterlik bağımlı değişken, algılanan sosyal destek, programdaki aşama, cinsiyet, sponsor, gelir düzeyi, TOEFL puanı ve İngilizce yeterliği bağımsız değişkenler olarak analize dahil edilmişlerdir.

Ortaya çıkan regresyon modelinin uygunluğunun test edilmesi için yol analizi yapılmıştır. Yol analizinde akademik öz yeterlik, gelir düzeyi ve cinsiyetinin algılanan stres üzerindeki doğrudan etkisi ve sosyal desteğin, cinsiyetin, gelir düzeyinin ve İngilizce seviyesinin akademik öz yeterlik üzerindeki doğrudan etkisi yordanmıştır. Modelin uygunluğu Hu ve Bentler'in (1998) İki Gösterge Stratejisi'ne göre test edilmiştir. Hu ve Bentler bir model uygun olup olmadığının belirlenmesi için iki göstergenin sağlanması gerektiğini belirtmişlerdir. Bu iki göstergeden birincisi SRMR'dir. İkinci olarak ise CFI, NNFI, IFI ve RMSEA göstergelerinden birisi istenen ölçütü sağlamalıdır. Modelinin uygunluğunun testi için ayrıca ki-kare ve ki-karenin serbestlik derecesine olan oranı da hesaplanmıştır.

SONUÇLAR

Bu kısımda tanımlayıcı istatistiklerin yanı sıra regresyon analizlerinin ve çok boyutlu varyans analizlerinin sonuçları özetlenmektedir.

Tanımlayıcı İstatistikler

Algılanan stres toplam puanının ortalaması 19.79, standart sapması ise 5.48'tir. Algılanan sosyal destek ölçeğinin ortalaması 62.62, standart sapması ise 14.39'dur. Akademik öz yeterlik ölçeğinin ise ortalaması 14.61, standart sapması ise 4.45'tir (Tablo 10).

Değişkenlerin Korelasyon Matrisi

Değişkenler arası korelasyonlar Pearson Korelasyon Katsayısı ile hesaplanmıştır. Algılanan stres; algılanan sosyal destek, akademik öz yeterlik, TOEFL puanı ve gelir düzeyi ile ters yönde ve anlamlı düzeyde ilişkilidir (Tablo 11).

Çoklu Regresyon Analizinin Sonuçları

Çoklu regresyon analizinin sonuçlarına göre algılanan stresin %38'i bağımsız değişkenler tarafından açıklanmaktadır ($R^2 = .38$, $F_{(13, 197)} = 8.73$, $p < .01$). Tablo 12'de görüldüğü gibi tüm değişkenler arasında cinsiyet ($t(197) = -1.95$, $p < .01$) gelir düzeyi ($t(197) = -2.99$, $p < .01$) ve akademik öz yeterlik ($t(197) = -7.22$, $p < .01$) modele anlamlı düzeyde katkı sağlamaktadır.

Modele katkı sağlayan önemli değişkenlerin belirlenmesinden sonra bu değişkenlerin bireysel katkıları incelenmiştir. Yapılan ileriye dönük aşamalı regresyon analizine sadece bu üç değişken (akademik öz yeterlik, gelir düzeyi, cinsiyet) dahil edilmiştir. Birinci aşamada akademik öz yeterlik modele girilmiş ve tek başına varyansın %31'ini açıkladığı görülmüştür ($R^2 = .31$, $F_{(1, 241)} = 108.04$, $p < .01$). İkinci aşamada modele gelir düzeyi de dahil edilmiştir ve bu varyansa %2'lik bir katkı sağlamıştır ($R^2 = .33$, $F_{(2, 241)} = 60.03$, $p < .01$). Üçüncü aşamada modele cinsiyet de girilmiş ve varyansı %3 artırmıştır ($R^2 = .36$, $F_{(3, 241)} = 43.72$, $p < .01$).

Akademik Öz yeterlik İçin Çoklu Regresyon Analizi

Algılanan stresi açıklayan en güçlü değişken olduğu için akademik öz yeterliği açıklayan değişkenlerin belirlenmesi amacıyla ayrı bir çoklu regresyon analizi yapılmıştır. Analizde akademik öz yeterlik bağımlı değişken; programda bulunulan aşama, cinsiyet, sponsor, gelir düzeyi, TOEFL puanı, algılanan İngilizce

düzeyi ve sosyal destek ise bağımsız değişkenlerdir. Regresyon analizine dahil olan değişkenler toplam varyansın %21'ini açıklamaktadır ve model anlamlıdır ($R^2 = .21$, $F_{(6, 235)} = 9.95$, $p < .01$). Cinsiyet ($t(235) = 3.64$, $p < .01$), gelir düzeyi ($t(235) = 2.56$, $p < .05$), algılanan İngilizce düzeyi ($t(235) = 2.35$, $p < .05$) ve algılanan sosyal destek ($t(235) = 4.73$, $p < .01$) akademik öz yeterliği anlamlı düzeyde açıklamaktadırlar.

Algılanan Strese Göre Grup Karşılaştırmaları

Amerika Birleşik Devletleri'nde yaşayan Türk öğrencilerin algılanan stres düzeylerinin medeni durum, bölüm, programda bulunulan aşama, iş durumu, ve yaşanılan yere göre farklılaşıp farklılaşmadığının sınanması için çok boyutlu varyans analizi yapılmıştır. Gruplar arası tek fark çalışan ve çalışmayan öğrenciler arasında bulunmuştur. Çalışan öğrencilerin algılanan öz-yeterlikleri düşük, algılanan yardımsızlıkları ise yüksektir. Diğer değişkenlere göre gruplar arasında anlamlı bir fark yoktur.

Yol Modelinin Uygunluk Analizleri

Yukarıda anlatılan iki regresyon analizinin birleştirilmesi ile ortaya konan bir modelin uygunluğunu ölçme amacıyla bir yol modeli önerilmiştir. Modele göre akademik öz yeterlik algılanan stres ile gelir düzeyi, algılanan sosyal destek ve İngilizce düzeyi arasında ara değişkendir. Ayrıca gelir düzeyi ve programda bulunulan aşamanın stres üzerindeki doğrudan etkisi de yordamıştır. Tablo 15'te modelin uygunluk değerleri görülmektedir.

Ki-kare değeri anlamlıdır ve bu değer serbestlik derecesinden küçüktür. Ayrıca Hu ve Bentler'in (1998) İki-Gösterge yöntemlerine göre SRMR kriter olan

.09'dan ve RMSEA kriter olan .06'dan küçük; NNFI, IFI ve CFI ise .95'ten büyüktür. Genel olarak bu değerler modelin uygunluğunu açıklamaktadır.

TARTIŞMA

Bulguların Tartışılması

Bu çalışmanın amacı Amerika Birleşik Devletleri'nde lisansüstü eğitim gören Türk öğrencilerin algılanan streslerini açıklayan etmenlerin Stresin Bilişsel Değerlendirmesi Kuramı'na göre seçilen değişkenlerce incelenmesidir. Bu değişkenler algılanan sosyal destek, akademik öz yeterlik, Amerika Birleşik Devletleri'nde geçirilen süre, yaş, cinsiyet, programda bulunulan aşama, sponsor, gelir düzeyi, önceki yolculuk deneyimleri, TOEFL puanı ve algılanan İngilizce yeterliğidir.

Çalışmanın ana analizleri çoklu regresyon analizi ile yapılmıştır. Sonuçlar yukarıda bahsedilen değişkenlerin Amerika Birleşik Devletleri'nde lisansüstü eğitim gören Türk öğrencilerin algılanan stresinin %38'ini açıkladığını göstermiştir. Tüm değişkenler arasında cinsiyet, gelir düzeyi ve akademik öz yeterlik modele anlamlı düzeyde katkı sağlamaktadır. Bu üç değişkenin bireysel katkıları incelendiğinde en çok akademik öz yeterliğin, daha sonra sırasıyla cinsiyetin ve gelir düzeyinin katkı yaptığı görülmüştür.

Bu bulgular Lazarus ve Folkman'ın (1984) kuramıyla bir çok noktada örtüşmektedir. Öz yeterlik Lazarus ve Folkman'ın kuramında en önemli kavramlardan birisidir çünkü kişilerin kendi yeterlikleri hakkındaki inançları olayların zorluk derecesini algılayışlarını belirler. Eğer kendilerini zorlukla baş etme konusunda yeterli görürlerse zor durumu bir tehdit olarak algılamazlar. Bandura (1993)'ya göre bir zorluk karşısında kendi baş etme becerilerine güvenmeyen

kişilerin stres yaşama olasılıkları daha yüksektir. Jerusalem ve Mittag'a (1997) göre de düşük öz yeterliğe sahip kişilerin hayatı stresli olarak algılama olasılıkları yüksek öz güvene sahip kişilere göre daha fazladır. Onların çalışmasında, stresi açıklayan en güçlü değişken öz yeterlik olmuştur.

Hackett, Betz, Casa ve Rocha-Singh (1992) stres ve akademik öz yeterlik arasında anlamlı bir ilişki olduğunu bulmuşlardır. Solberg ve Villareal'in (1997) çalışması da öz yeterlik ile stres arasında negatif yönlü güçlü bir ilişki olduğunu vurgulamıştır. Chemers, Hu ve Garcia (2001) stres ile öz yeterlik arasındaki ilişkiyi bir durumun tehdit olarak algılanıp algılanmayışını ara değişken olarak değerlendirerek incelemiştir. Hipotez olarak akademik öz yeterliği yüksek olan öğrencilerin bir zorluğu tehdit olarak algılamayacağını böylece bu algının da stresi etkileyeceğini öne sürmüşlerdir. Bu ilişkiyi yol analizi ile yordamışlardır. Sonuç olarak akademik öz yeterlik ile tehdit algısı arasında anlamlı bir yol ve tehdit algısı ile stres arasında da anlamlı bir yol bulmuşlardır.

Bu çalışmanın bulguları ile daha önceki çalışmalar birlikte değerlendirildiğinde öz yeterlik ile stres arasındaki ilişkinin oldukça açık olduğu görülmektedir. Ancak bu ilişki tek yönlü ve basit bir ilişki değil aksine çok yönlü bir ilişkidir. Bazı çalışmalarda stres öz yeterliği, kimi çalışmalarda ise öz yeterlik stresi yordamaktadır. Kimi zaman da aradaki ilişki, bu iki değişkenden birisinin üçüncü bir değişkeni etkileyerek onun üzerinden dolaylı bir etki yapması sonucu ortaya çıkmaktadır.

Bu çalışmanın bir diğer bulgusuna paralel olarak stres ile gelir düzeyi ilişkisi incelendiğinde bu iki değişken ile ilgili olarak alan yazında birçok çalışmaya rastlamak mümkündür. Home'un (1997) kadın üniversite öğrencileri ile yaptığı

çalışmada onların stresini etkileyen en önemli etkenin gelir düzeyi olduğu bulunmuştur. Mallinckrodt ve Leong (1992) da Amerika Birleşik Devletleri'nde öğrenim gören yabancı öğrencilerin stres düzeylerini etkileyen etmenleri ortaya koymak için yaptığı çalışmada maddi yetersizliklerin stres ve depresyon ile anlamlı düzeyde ilişkili olduğunu ortaya koymuştur. Benzer bir çalışmada da Ross, Niebling ve Heckert (1999) 100 üniversite öğrencisine hayatlarındaki en önemli stres faktörlerini sormuşlardır. Yetmiş bir öğrenci maddi güçlüğü en önemli stres kaynaklarından biri olarak belirtmiştir.

Çalışmanın sonucunda kızların algılanan stresinin erkeklerden daha fazla olduğu bulunmuştur. Paralel bir çalışmada Mallinckrodt ve Leong (1992) da kız öğrencilerin erkeklerden daha fazla stresli olduklarını belirtmiştir. Younes ve Asay (1998) kızların daha stresli olmasını rol çatışması ile açıklamışlardır. Genellikle kızlar erkeklerden daha fazla birbiriyle çatışan rolleri üstlenirler. Lisansüstü eğitim öğrencisi olmanın yanı sıra eş, anne, gelin vs. gibi rolleri de üstlenirler. Lazarus ve Folkman'a (1984) göre rol çatışması belirsizliği artırarak stresin artmasına sebep olur.

Bu çalışmada stresi açıklamada etkisi incelenen değişkenlerden biri de algılanan sosyal destektir. Stres ile sosyal destek ilişkisi alan yazında tartışmalı bir konu olmuştur. Örneğin Beehr, Farmer, Glazer, Gudanowski ve Nair (2003) sosyal desteğin stresi önleyici etkisinin tutarsız olduğunu ve yeteri kadar açık olmadığını öne sürmektedirler. Öte yandan stres ile sosyal destek arasında güçlü (örn. Home, 1997; Hayes & Lin, 1994) ya da zayıf (örn. Gao, Chan & Mao, 2009; Marcelissen, Winnubst, Buunk, & Wolff, 1988) ilişki bulan çalışmalar da vardır. Bu çalışmanın

sonuçları da sosyal desteğin stres üzerinde etkisi olmadığını ortaya koyan bulguları desteklemektedir.

Viswesvaran, Sanchez ve Fisher'in (1999) sosyal destek ile iş stresi arasındaki ilişkiyi inceleyen meta analiz makalesi bu konuda yapılmış ayrıntılı bir çalışmadır. Meta analiz çalışmaları bir konu ile ilgili yapılan hemen hemen tüm nicel çalışmaların etki derecelerini analiz eden ve bu şekilde genel bir nicel özet sunan çalışmalar türüdür. Viswesvaran, Sanchez ve Fisher'in meta analiz çalışması da stres ile sosyal destek arasındaki ilişkileri inceleyen tüm çalışmaların etki derecelerini değerlendirmiş ve bu ilişkinin zayıf olduğunu ortaya koymuştur.

Beehr, Bowling ve Bennett (2010) de sosyal desteğin nasıl algılandığına bağlı olarak bazen stresi azaltmak yerine aksine artırıcı bir etki yapabileceğini belirtmişlerdir. Bu çalışma ile Beehr, Bowling ve Bennett'in çalışmasının en önemli ortak noktası her iki çalışmanın da sosyal desteğin algılanışı üzerinde durmalarıdır. Eğer kişiler etraflarındaki sosyal ilişkileri destekleyici olarak görmüyorlarsa bu ilişkiler stresi azaltıcı etki yapmayacaktır.

Son olarak akademik öz yeterlik ile stres arasındaki güçlü ilişkiden dolayı akademik öz yeterliği açıklayan değişkenler de incelenmiştir. Akademik öz yeterliğin bağımlı değişken olarak değerlendirildiği çoklu regresyon analizinde cinsiyet, gelir düzeyi, İngilizce yeterliği ve sosyal destek akademik öz yeterliği anlamlı düzeyde açıklayan değişkenlerdir.

Bu çalışmada erkeklerin akademik öz yeterliği kızlardan daha yüksek bulunmuştur. Bong'un (1999) doğrulayan faktör analizi çalışmasında da erkeklerin öz yeterlikleri akademik konularda kızlardan daha yüksek bulunmuştur. Betz ve Hackett (1981) geleneksel ve geleneksel olmayan iş kolları ile ilgili olarak kız ve

erkek üniversite öğrencilerinin öz yeterliklerini karşılaştırmıştır. Kızların öz yeterlikleri geleneksel olmayan işlerde erkeklerden daha düşüktür. Her ne kadar Betz ve Hackett'in listesinde bir iş kolu olarak akademisyenlik yer almasa da, onun da geleneksel olmayan bir iş olduğunu söyleyebiliriz. Usher ve Pajares (2008) bu farkın cinsiyetin kendisinden değil cinsiyet rolleri ile ilgili ön yargılardan kaynaklandığını öne sürmüşlerdir. Ön yargılar toplumun ve ailelerin kızlarından beklentilerini şekillendirmektedir. Genellikle ailelerin kız çocuklarından akademik beklentileri erkek çocuklarınkinden daha azdır (Philips & Zimmerman, 1990).

McAvay, Seeman ve Rodin'in (1996) boylamsal çalışması maddi olanakların öz yeterliği açıkladığını ortaya koymuştur. Bir diğer boylamsal çalışmada Crocker ve Luhtanen (2003) üniversite yıllarında akademik yeterlik ile ilgili algının ileriki yıllardaki akademik ve maddi güçlükleri açıkladığını bulmuştur.

Alan yazında bu çalışmada ortaya konan İngilizce yeterliği ile akademik öz yeterlik arasındaki ilişkiyi destekleyen birçok çalışmaya rastlanabilir. Poyrazlı (2000) yabancı lisansüstü öğrencilerin psikososyal uyumlarını incelediği doktora tezinde dil yeterliği ile akademik öz yeterlik arasında anlamlı ve pozitif yönlü bir ilişki bulmuştur. İngilizce'nin yetersiz olması öğrencilerin Amerika Birleşik Devletleri'nde hem kültürel hem de akademik ortamlara girmelerini zorlaştırmaktadır (Barratt & Huba, 1994; Hayes & Lin, 1994, Poyrazlı, 2000).

Akademik öz yeterliği açıklayan bir diğer değişken de sosyal destektir. Torres ve Solberg'in (2001) yol modeli yüksek aile desteğine sahip olan öğrencilerin akademik öz yeterliklerinin de yüksek olduğunu göstermiştir. Aileleri ile destekleyici ve olumlu ilişkileri olan öğrenciler profesörleri ve sınıf arkadaşları ile

de iyi ilişkiler geliřtirmektedirler. Bu öğrenciler aynı zamanda akademik amaçlarını gerçekteřirme konusunda kendi yeterliklerine güçlü bir řekilde güvenmektedirler.

Bu çalışmanın ortaya koyduđu en ilginç bulgulardan birisi de çalışan öğrencilerin algılanan öz yeterliklerin çalışmayan öğrencilerden daha düşük, algılanan yarımsızlıklarının ise daha yüksek olmasıdır. Çalışan öğrenciler çalışmayan öğrencilere kıyasla daha fazla rol karmařası ve rol çatıřması yařarlar. Çalışan öğrenciler yeni sosyal çevrenin ve lisansüstü eğitimin beklentilerine ek olarak iş ortamının, patronlarının ve iş arkadaşlarının beklentilerini de karşılamak zorunda kalabilirler. Bu öğrenciler sadece dersleri, üniversitedeki öğretim görevlileri ya da sınıf arkadaşları ile olan ilişkileri için değıl aynı zamanda işlerini kaybetme korkusuyla da baş etmek durumundadırlar. Çalışan öğrenciler çalışmayan öğrencilere kıyasla derslerine de daha az zaman ayırabilmektedirler. Çünkü bu öğrenciler okul ve ders dışı zamanlarının çoğunu iş yerinde geçirmektedirler.

Uygulamaya Yönelik Öneriler

Bu çalışma Amerika Birleşik Devletleri'nde yařayan Türk öğrencilerin algılanan stres düzeylerini açıklayan değıřkenlerin anlaşılmasında ilk aşamayı oluřturmaktadır. Öğrencilerin stres yaratıcı olarak algıladıkları durumlar ve sorunlar diğıer gruplardan farklıdır. Yabancı öğrenciler de kendi durumlarına özgü stresli durumlarla karşı karşıya kalabilmektedirler (Yi, Lin, & Kishimoto, 2003). Oysa yapılan çalışmalar bu öğrencilerin üniversite yerleşkelerindeki rehberlik ve psikolojik danışma merkezlerince verilen hizmetlerden yeterince yararlanamadıklarını ortaya koymaktadır (Mau & Jepsen, 1990; Mori, 2000; Nilsson, Berkel, Flores, & Lucas, 2004). Bu hizmetlerden faydalanmak yerine sorunlarını aileleriyle ya da arkadaşlarıyla paylaşmayı tercih etmektedirler ve

yardımı da yine bu kişilerden beklemektedirler (Yi, Lin, Kishimoto, 2003).

Rehberlik ve psikolojik danışma merkezlerinin yeterince kullanılmıyor olmasının en büyük sebeplerinden birisi dil engelidir (Mori, 2000). Her ne kadar üniversiteler farklı dillerden ve kültürlerden psikolojik danışmanları çalıştırmaya önem verseler de Amerika Birleşik Devletleri'ndeki bir üniversitede Türkçe bilen bir psikolojik danışman bulmak çok da kolay değildir. Bu sebeple Türk eğitim ataşelikleri en azından Türk öğrenci nüfusunun fazla olduğu belli merkezlerde psikolojik danışmanlar çalıştırabilirler.

Bu grubun ihtiyaçlarına yönelik stresi önleme programları ve stres yönetimi eğitimleri düzenlemek faydalı olacaktır. Etkili bir program düzenlemenin en önemli aşaması programın hedef kitlesi için strese neden olan faktörlerin belirlenmesidir. Bu çalışma bu tür programların hazırlanmasında ihtiyaç analizi olarak kullanılabilir. Örneğin bu çalışmanın sonuçlarına göre hazırlanacak bir programın vurgu yapacağı başlıca konulardan birisi öz yeterlik olacaktır. Bunun yanı sıra maddi güçlüklerle nasıl baş edileceği ve lisansüstü programın farklı aşamalarında karşılaşılabilecek güçlükler ve baş etme yolları da bu gruplar için hazırlanacak programlarda söz edilmesi gereken konulardır.

Bu çalışmanın dikkat çeken bulgularından birisi kız öğrencilerin algıladıkları stresin erkek öğrencilerden anlamlı düzeyde yüksek olmasıdır. Kız öğrencilere yönelik yapılacak çalışmalarda aynı cinsiyetten olan mentorlerle çalışılabilir. Rehberlik ve psikolojik danışma merkezleri bu öğrencilere uzun süreli mentorluk programları sağlayabilirler. Daha önce benzer durumlardan geçmiş, benzer problemleri yaşamış ve bu problemlerle baş etmiş kişiler bu öğrenciler için iyi birer rol modeli olabilirler.

Bu çalışmada çalışan öğrencilerin algılanan öz yeterlikleri çalışmayan öğrencilerden daha yüksek, algılanan yarımsızlıkları ise daha düşük bulunmuştur. Üniversitelerin rehberlik merkezlerinde çalışan psikolojik danışmanlar bu öğrencilerin yaşayacakları rol çatışması ve rol karmaşasına yönelik önlemler geliştirebilirler. Bu öğrenciler için özellikle okul, iş, aile ve sosyal çevre ile olan ilişkilerin nasıl denge içerisinde tutulacağını bilmek büyük önem taşımaktadır. Bu öğrenciler özellikle zaman yönetimi konusunda desteğe ihtiyaç duyabilirler. Bu öğrencilere yönelik geliştirilecek stresi önleyici programlarda zaman yönetimi konusuna yer vermek faydalı olabilir.

Sadece Amerika Birleşik Devletleri'ndeki üniversitelerin rehberlik ve psikolojik danışma merkezleri değil Türkiye'deki üniversitelerde bulunan merkezler de bu öğrencilere yardımcı olabilirler. Üniversitelerin son sınıf öğrencilerine yönelik sunulan kariyer danışmanlığında lisans mezuniyeti sonrası yurtdışında lisansüstü eğitime devam etmek isteyen öğrencilere yönelik uygun rehberlik ve danışmanlık programları sunulabilir. Bu öğrencilerin sadece başvuru sürecinde değil çok daha büyük oranda gittikleri ülkelerde karşılaşacakları ile ilgili danışmanlığa ihtiyaçları olmaktadır. Bu öğrencilere hem yabancı öğrenci olmanın farklılıkları hem de lisansüstü eğitimin getirileri hakkında programlar düzenlenebilir.

Sonraki Çalışmalar için Öneriler

Konu ile ilgili ileride yapılacak çalışmalarda dikkat edilebilecek bazı noktalar vardır. İlk olarak, bu çalışma Amerika'da eğitim gören öğrencilerin algılanan streslerini yordayan değişkenlerin neler olduğu ile ilgili bir model ileri sürmektedir. Bu model sonraki çalışmalarda yapısal eşitlik modelleri ile sınanabilir. İkinci olarak bu çalışma algılanan stresi yordayan değişkenleri niceliksel olarak

açıklamıştır. Konu ile ilgili yapılacak nitel çalışmalar algılanan stresi etkileyen değişkenlerin anlaşılmasında daha ayrıntılı bilgi sağlayacaktır. En az bu öğrenciler kadar stres yaşayan bir diğer grup da bu öğrencilerin eşleridir. Genel olarak eşler öğrenci olmadıkları gibi dışarıda bir işte de çalışmamaktadırlar. Bir kısmının İngilizce düzeyi bulundukları bölgedeki Amerikalılarla iletişim kurmaya da yeterli olmadığından bu grup yeni ülkelerinde toplumdan oldukça izole edilmiş bir yaşam sürebilmektedirler. Bu yüzden bu grubu etkileyen stres oluşturuıcı etkenler, öğrencilerinkinden çok farklı olabilecektir. Sonraki çalışmalarda Amerika Birleşik Devletleri'nde eğitim gören öğrencilerin eşleri ile de çalışılması yararlı olacaktır. Sonraki çalışmalara yönelik sunulabilecek bir diğer öneri de bu grubun algıladıkları stresin zaman içerisindeki değişimini gözlemlemek amacıyla yapılacak boylamsal çalışmalardır. Bu çalışmanın bulguları öğrencilerin eğitimlerinde bulundukları aşamanın stresi açıkladığını ortaya koymuştur. Yapılacak boylamsal çalışmalar öğrencilerin lisansüstü eğitime başladıkları ilk yıldan mezun oldukları zamana kadarki stres düzeylerinin takibinde faydalı olacaktır. Son olarak yapılabilecek bir öneri de bu çalışmada ortaya konan cinsiyet farkının sebeplerinin araştırılması olabilir. Kızların erkeklerden daha yüksek stres ve daha düşük akademik öz yeterliğe sahip olma sebepleri derinlemesine yapılacak çalışmalarla irdelenebilir.

APPENDIX G

CURRICULUM VITAE

PERSONAL INFORMATION

Date and Place of Birth: 07.08.1981 / Kırşehir, Turkey

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EDUCATION

Degree	Institution	Year of Graduation
M.S.	İstanbul University, Educational Sciences	2006
B.S.	Boğaziçi University, Educational Sciences	2004
High School	Kırşehir Lisesi	1999

WORK EXPERIENCE

Year	Place	Position
2011 -Present	The University of Georgia	Educ. Program Specialist
2009-2011	The University of Georgia	Visiting Researcher
2005-2008	Ministry of National Education	School Counselor

PUBLICATIONS

Siyahhan, S., Arıcak, T., & **Cayirdag, N.** (2012). The relation between bullying, victimization, and adolescents' level of hopelessness. *Journal of Adolescence*, 35, 1053-1059.

Cayirdag, N. (2011). Attribution and creativity. In M.A Runco & S. Priztker (Eds.), *Encyclopedia of Creativity*. San Diego, CA: Elsevier.

Cayirdag, N. & Acar, S. (2010). Relationship between styles of humor and divergent thinking. *Procedia Social and Behavioral Sciences*, 2, 3236–3240.

Ismen-Gazioglu E., Bekci B., Yavuz- Güler Ç. & **Cayirdag N.** (2007). İstanbul İli Özel ve Devlet Okullarında Mesleki Rehberlik Çalışmalarına İlişkin Durum Saptaması (Investigation of the Vocational Guidance Activities in State and Private Schools in Istanbul). *Eğitim Araştırmaları (Eurasian Journal of Educational Research)*, 27, 97-109.

HONORS/AWARDS

American Psychological Association 119th Annual Convention Travel Award, 2011

Fulbright Visitor Researcher Scholarship Candidate for Fall 2009

Boğaziçi University Turhan Oguzkan Award, 2004

Honor Degree in Boğaziçi University, 2004

Academic Achievement Scholarship by Boğaziçi University, 1999-2004



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YAZARIN

Soyadı :ÇAYIRDAĞ.....

Adı :NUR.....

Bölümü :EĞİTİM BİLİMLERİ.....

TEZİN ADI (İngilizce) : ...PERCEIVED SOCIAL SUPPORT, ACADEMIC SELF-EFFICACY AND DEMOGRAPHIC CHARACTERISTICS AS PREDICTORS OF PERCEIVED STRESS AMONG TURKISH GRADUATE STUDENTS IN THE USA

TEZİN TÜRÜ : Yüksek Lisans

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Doktora

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1. Tezimin tamamı dünya çapında erişime açılsın ve kaynak gösterilmek şartıyla tezimin bir kısmı veya tamamının fotokopisi alınsın. ☒
2. Tezimin tamamı yalnızca Orta Doğu Teknik Üniversitesi kullanıcılarının erişimine açılsın. (Bu seçenekle tezinizin fotokopisi ya da elektronik kopyası Kütüphane aracılığı ile ODTÜ dışına dağıtılmayacaktır.) ☐
3. Tezim bir (1) yıl süreyle erişime kapalı olsun. (Bu seçenekle tezinizin fotokopisi ya da elektronik kopyası Kütüphane aracılığı ile ODTÜ dışına dağıtılmayacaktır.) ☐

Yazarın imzası

Tarih

12/09/2012