

**COLLEGE ADJUSTMENT OF INTERNATIONAL STUDENTS: THE ROLE  
OF GENDER, ACCULTURATIVE STRESS, COPING SKILLS, CULTURAL  
DISTANCE, AND PERCEIVED SOCIAL SUPPORT**

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## **ABSTRACT**

COLLEGE ADJUSTMENT OF INTERNATIONAL STUDENTS: THE  
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The purpose of the present study is to investigate the role of gender, acculturative stress, coping skills, cultural distance, and perceived social support in predicting college adjustment scores of international students who attend universities in Ankara.

The sample of the study consisted of 170 (135 males and 35 females) volunteered international students from one private and four state universities in Ankara. A Personal Data Sheet developed by the researcher, Student Adaptation to College Questionnaire (Baker & Siryk, 1984), Acculturative Stress Scale for International Students (Sandhu & Asrabadi, 1994), Brief COPE (Carver, 1997), Cultural Distance Scale (Bektaş, 2004), and the Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet, & Farley, 1988) were used to collect data.

Hierarchical multiple regression analysis was conducted to analyze data. The results of the analysis revealed that acculturative stress,

positive coping skills, and cultural distance were significant predictors of college adjustment scores of international students while gender, negative coping skills, passive coping skills, and perceived social support were not. All predictor variables explained 9.8 % of the total variance in college adjustment scores. The study results demonstrated that international students who have low acculturative stress, low perceived cultural distance and high use of positive coping skills were better adjusted to college.

Keywords: College Adjustment, Acculturative Stress, Coping Skills, Cultural Distance, Perceived Social Support.

## ÖZ

### ULUSLAR ARASI ÖĞRENCİLERİN ÜNİVERSİTE UYUMU: CİNSİYET, KÜLTÜRLEŞME STRESİ, BAŞA ÇIKMA BECERİLERİ, KÜLTÜREL UZAKLIK VE ALGILANAN SOSYAL DESTEĞİN ROLÜ

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Bu çalışmanın amacı Ankara'daki üniversitelerde eğitimine devam eden uluslar arası öğrencilerin üniversite uyum puanlarını yordamada cinsiyet, kültürleşme stresi, başa çıkma becerileri, kültürel uzaklık ve algılanan sosyal desteğin rolünü araştırmaktır.

Çalışmanın örnekleme, Ankara ilindeki bir özel, dört devlet üniversitesinde öğrenim gören 170 (135 erkek ve 35 kız) uluslar arası gönüllü öğrenciden oluşmaktadır. Araştırmacı tarafından geliştirilen Kişisel Bilgi Formu, Üniversite Öğrencileri Uyum Ölçeği (Baker & Sıryk, 1984), Uluslar Arası Öğrenciler İçin Kültürleşme Stresi Ölçeği (Sandhu & Asrabadi, 1994), Başa Çıkma Stratejileri Kısa Formu (Carver, 1997), Kültürel Uzaklık Ölçeği (Bektaş, 2004), ve Çok Boyutlu Algılanan Sosyal Destek Ölçeği (Zimet, Dahlem, Zimet, & Farley, 1988) veri toplamak için kullanılmıştır.

Verilerin analizinde hiyerarşik çoklu regresyon analizi kullanılmıştır. Analiz sonuçları kültürleşme stresi, olumlu başa çıkma becerileri ve

kültürel uzaklığın uluslar arası öğrencilerin üniversite uyumunu açıklamada anlamlı yordayıcı değişkenler olduğunu; cinsiyet, olumsuz başa çıkma becerileri, pasif başa çıkma becerileri ve algılanan sosyal desteğin ise anlamlı yordayıcı değişkenler olmadıklarını ortaya çıkarmıştır. Tüm yordayıcı değişkenler üniversite uyum puanlarındaki toplam varyansın % 9.8'ini açıklamıştır. Araştırma sonuçları, kültürel stres ve algılanan kültürel farklılığı düşük, olumlu başa çıkma beceri kullanımı yüksek uluslar arası öğrencilerin üniversite uyumunun daha yüksek olduğunu göstermiştir.

**Anahtar Kelimeler:** Üniversite Uyumu, Kültürleşme Stresi, Başa Çıkma Becerileri, Kültürel Uzaklık, Algılanan Sosyal Destek.

***To my family:***

**My mother,**

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**My father,**

Nazım OTLU

**My Brothers,**

Mehmet Akif OTLU

**& Hasan Suat OTLU**

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## CHAPTER I

### INTRODUCTION

#### 1.1. Background to the Study

Throughout the history people from different cultures have been in contact for several reasons. The duration, length and type of these contacts have been various. People moved from one country to the other for various purposes as tourists, sojourners, immigrants, and refugees (Ward, Bochner, & Furhnham, 2001). After entering a new culture most of these people face 'culture shock' which can be defined as the collective effect of the unfamiliar experiences of a person entering a new culture (Zhou, Jindal-Sape, Topping, & Todman, 2008). Since there are many unknowns to the new comer, adjusting to a new culture becomes a difficult process that can be challenging and stressful (Yusoff & Chelliah, 2010). The most common symptoms of culture shock can be listed as; feeling of complete helplessness, the sense of not being understood by anyone, and the feeling that nothing will work out for the person (Dorozkhin & Mazitova, 2008). Therefore, it can be concluded that any life change whether welcome or unwelcome seems to result in stress and can require coping strategies in adjusting the new culture (Rosenthal, Russell, & Thomson, 2008).

Living and studying in another country can generally an important transition period for a person and this process involves many sociocultural, environmental, and psychological adjustments (Chen, 1999). Adjustment can be defined as a complex and multifaceted concept including dynamic processes that result in the person's and

his/her environment reaching an appropriate harmony (Ramsay, Jones, & Barker, 2007). The term 'adaptation' is also used in many studies instead of adjustment (Ataca & Berry, 2002; Cemalcilar & Falbo, 2008; Virta, Sam, & Westin, 2004; Ward & Kennedy, 1999; Ward & Rana-Deuba, 1999; Zhou et al., 2008). Since adjustment is accepted as a multifaceted concept there can be many variables affecting it. Rosenthal et al. (2008) list the variables affecting the adjustment process in two groups: (1) background variables such as the difference between the culture of origin and host culture, language proficiency, gender, age, education level, status, self-esteem, and prior cross-cultural experiences, (2) situational variables such as length of stay, the information and support provided, social interaction with host nationals, networking with co-culturals, academic or professional performance, and physical health. They also add that there are strong relations among many of these variables.

International students are one of those groups facing culture shock and experiencing adjustment to a new culture and naturally they find themselves in the middle of many demands and problems (Poyrazli & Grahame, 2007). In the literature, it is stated that both host college students and international college students experience difficulties in the college adjustment process, such as stress of academic life, issues related to normal development of their age (psychological autonomy, economic independence, and identity formation), leaving home, financial pressures, sharing life with strangers, and investigating what is expected from them in the university life (Spencer-Oatey & Xiong, 2006; Toyokawa & Toyokawa, 2002). However, many other studies advocate that international students face more complex and challenging situations than host students such as language problems, accommodation difficulties, racial discrimination, dietary restrictions, financial stress, misunderstandings, loneliness, less confidence, sense

of loss, anxiety, confusion, and sense of isolation and alienation (Brislin & Yoshida, 1994; Lin & Yi, 1997).

In the recent years, as a result of globalization and increase in number of international students all around the world, high numbers of studies related to international students have been conducted in terms of different subjects. In the literature of international students mainly four areas are studied: (a) international students' problems, (b) the psychological reactions of sojourners encountering a new cultural environment, (c) the effect of social interaction and communication on sojourner adaptation, and (d) the culture-learning process in the cross cultural sojourn (Hammer, 1992). In terms of the empirical studies investigating international students' moving to another country and entering a new culture, it has been reported that college adjustment of international students can be affected by many factors such as gender, age, cultural distance, language proficiency, length of stay, social support, education level, status, self-esteem, coping styles, acculturative stress, and spirituality (Poyrazli, Kavanaugh, Baker, Al-Timimi, 2004; Rosenthal, Russell, & Thomson, 2007; Yeh & Inose, 2003; Yusoff & Chelliah, 2010).

Among the variables affecting the college adjustment process of international students, gender is the one on which contradictory study results revealed. Ataca and Berry (2002) in their study found that there are different predictors of adaptation for male and female which requires considering different sources for the adaptation of men and women. In other words male and female students might have different perspectives of adjustment and related stress. In some of the studies female students were found to be having higher stress levels than the male students and having poorer adaptation (Bang, Muruiki, & Hodges, 2008; Virta et al., 2004). However, in other studies it was found that

gender has no effect in adjustment (Poyrazli, Arbona, Bullington, & Pisecco, 2001; Sumer, Poyrazli, Grahame, 2008). One another study revealed that there was no difference between adaptation of female and male international students' general adjustment (Poyrazli, Arbona, Nora, McPherson, & Pisecco, 2002). Berry, Kim, Minde, and Mok (1987) also state that cultural differences and country of origin can affect the influence of gender in college adjustment.

Other than gender, one of the most researched subjects related to the adaptation process of sojourners is *acculturative stress* that refers to specifically the stress that is resulted from the stressors that have roots in the process of acculturation (Shergill, 1992). According to Berry (1980, as cited in Bektaş, 2004) acculturation involves three phases that are (1) contact (2) conflict and (3) adaptation. Therefore it can be concluded from this perspective that since acculturative stress takes its basis from the problems related to acculturation, it can directly affect the third phase which is adaptation. Berry (1997) advocates that acculturative experience is a big life event and involves stress and cognitive demands resulting in the need of using various coping strategies. Berry et al. (1987) state that sojourners (the group that international students belong to in foreigners) may experience more stress than the other foreign groups of people in terms of the anxiety of turning home country back and lack of a full-scale of social support network in the host society. Berry et al. (1987) also list the behaviors occurring during the acculturation process as lowered mental health (e.g.: anxiety, depression, confusion), increased psychosomatic symptoms, feelings of alienation and marginality, and confusion related to identity which can probably affect the adjustment process. Berry (1997) sees age, gender, education, migration motivation, expectations, cultural distance and personality as moderating factors existing prior to the acculturation and adds that acculturation strategies, coping

strategies, and social support might be influential in the process of acculturation. Through considering and examining the acculturative stress of international students, their needs can be better met in the future (Yeh & Inose, 2003).

After stating that acculturative stress has found to be effective on adjustment in the literature, it is worth to mention another concept which is *coping* since some positive coping strategies were found to be decreasing acculturative stress and facilitating process of adaptation to a new culture (Berry et al., 1987; Sümer, 2009). When the term stress is in question, coping skills or ways of coping come after it naturally. Folkman, Lazarus, Gruen, and DeLongis (1986) defines *coping* as the process of managing the internal and external demands of the person-environment interaction that is extremely demanding or going beyond the person's resources through showing cognitive and behavioral efforts. Livneh, Livneh, Maron, and Kaplan (1996) concluded that individuals' perception of coping with stress can be explained under three main dimension that are; (a) active coping versus denial/escape, (b) turning to interpersonal support versus seeking religious comfort, and (c) instrumental/cognitive disengagement versus affective/spiritual engagement. There are other different perspectives on grouping the coping styles such as Lazarus and Folkman's (1985) problem and emotion focused coping; Holahan, Moos, Schafeer's (1996, as cited in Tuna, 2003) approach and avoidant coping; and Diaz-Guerro's (1979) active and passive coping. In a study carried out by Alazzi and Chiodo (2006), researchers found that students used some coping strategies rooted from religion, family, and peer support which helped them to achieve their major objectives in a new culture. Although some studies advocated that there is a relationship between coping skills and adjustment, some other researchers state that it is still unclear whether

specific coping strategies predict adjustment related outcomes (Arthur, 1998; Pritchard, Wilson, & Yamnitz, 2007).

One another variable that seems to be significantly related with adjustment in the literature is cultural distance. It is described simply as the distance between culture of origin and the host culture (Babiker, Cox, & Miller, 1980). Most of the studies related to cultural distance and adjustment have revealed that higher the cultural distance and difference between the host and home culture, lower the adjustment or higher the difficulties in the adjustment process (Rosenthal et al., 2007; Suanet & Van de Vijver, 2009; Yeh & Inose, 2003). Study of Ward and Kennedy (1999) demonstrated that cultural and/or ethnic similarity between one's own culture and the host culture was found to be associated with better socio-cultural adjustment in international students. Yeh and Inose (2003) also found that cultural distance seems to be a predictive factor of acculturative stress. Moreover, two different studies came up with the result that higher the cultural distance perceived by the individuals, lower they show social interaction with the host nationals (Chapdelaine & Alexitch, 2004; Suanet & Van de Vijver, 2009). In other words, perceived high cultural distance can result in social difficulties for the individuals in the adaptation process. In the existence of high cultural distance, social support can be a way of coping for some individuals (Tao, Dong, Pratt, Hunsberger, & Pancer, 2000). In contrast to these studies, there are also other studies that could not find a significant relationship between cultural distance and adjustment (Bektaş, 2004; Hechanova-Alampay, Beehr, Christiansen, & Van, 2002). In relation to cultural distance, social support can be another factor affective in adjustment process since it can increase the number of social contacts for international students and can provide them with culturally appropriate skills to decrease the sociocultural

adaptation difficulties and perceived cultural distance (Ataca & Berry, 2002).

In addition to cultural distance, perceived social support can also be an important variable that affects the adjustment of students. Lazarus and Folkman (1984, p. 249), define support as 'the nature of the interactions occurring in social relationships, especially how these are evaluated by the person as to their supportiveness'. In the literature, it is generally accepted that support includes four main types, emotional (communication to others that they are valued), practical (material assistance), informational (cognitive guidance and advice), and social companionship (spending time with others in leisure activities) (Cohen & Wills 1985). Most of the studies investigating social support and adjustment reported a relationship between the two variables (Al-Sharideh & Goe, 1998; Poyrazli et al., 2004; Yang, Noels, & Saumure 2005; Yusoff & Chelliah, 2010). In a study conducted with the first year international college students, it was found that higher the support better the college adjustment (Ramsay et al., 2007). In another study with international college students, results revealed that the students who received high social support tended to have lower levels of acculturative stress (Poyrazli et al., 2004). However, in contrast to the studies reporting the significant contribution of social support in adjustment, Ward and Kennedy (2001) found in a study that social support has no relation with adjustment outcome.

Taken collectively, gender, acculturative stress, coping skills, cultural distance, and perceived social support appear to be the factors that predict the college adjustment process of international students. Therefore, it seems worth investigating the relationships among these variables.

## **1.2. Purpose of the Study**

The major purpose of the present study is to investigate the role of gender, acculturative stress, coping skills, cultural distance, and perceived social support in predicting college adjustment of international students (undergraduate and graduate) who attend universities (both public and private) in Ankara.

## **1.3. Research Questions**

The research question of the present study can be summarized as follows:

- 1- To what extent do gender, acculturative stress, coping skills, cultural distance, and perceived social support predict college adjustment scores of international university students in Ankara?

## **1.4. Definition of Terms**

*Adjustment:*

A complex and multifaceted concept including dynamic processes that result in the person's and his/her environment reaching an appropriate harmony (Ramsay et al., 2007).

*College Adjustment*

Responding to academic demands, having social interaction with the faculty staff, taking part in campus life, and being attached and committed to university (Baker & Siryk, 1984).

*Acculturative Stress:*

The type of stress related to individuals' cross-cultural encounters that can produce physical, psychological and social problems (Berry et al., 1987)

*Coping:*

The process of managing the internal and external demands of the person-environment interaction that is extremely demanding or going beyond the person's resources through showing cognitive and behavioral efforts (Folkman et al., 1986).

*Cultural Distance:*

The distance between culture of origin and the host culture (Babiker et al., 1980).

*Perceived Social Support:*

"An individual's perceptions of general support or specific supportive behaviors (available or enacted on) from people in their social network, which enhance functioning or may buffer them from adverse outcomes." (Demaray & Malecki, 2002; p. 215).

## **1.5. Significance of the Study**

Since Turkey is an attractive country with its history, geographical condition, natural beauties and a developing country from many aspects as well as education, it becomes a choice of international students. These factors result in an increase in the number of foreign student

enrolling in Turkish universities and need of focusing on the needs of the students coming from different countries and cultures. Therefore, it seems particularly important to know more about the factors that influence international students' adjustment process, in order to enhance their adjustment experiences.

Literature reveals that international students face complex and challenging situations such as language problems, accommodation difficulties, racial discrimination, dietary restrictions, financial stress, misunderstandings, loneliness, less confidence, sense of loss, anxiety, confusion, and sense of isolation and alienation (Brislin & Yoshida, 1994; Lin & Yi, 1997). Moreover, they experience the same difficulties with host students such as stress of academic life, problems related to normal development of their age (psychological autonomy, economic independence, and identity formation), leaving home, financial pressures, sharing life with strangers, and investigating what is expected from them in the university life (Spencer-Oatey & Xiong, 2006; Toyokawa & Toyokawa, 2002). It is obvious that international students need to cope with many life challenges. Therefore, the universities, counseling centers, or the institutions who give service to international students should know what international students experience in a foreign country.

Moreover and as being the main purpose of this study, the results of this study can provide valuable information regarding offering counseling services to international students and preparing preventive or orientation programs. In the literature, it has been found that international students underutilize the counseling services (Scheel, Razzhavaikina, Allen-Portsche, Backhaus, Madabhushi, & Rudy, 2008). The one reason of not using the counseling services for international students might be the different views of counseling and mental health

issues in different cultures (Mori, 2000). Because of this some international students might not be seeing counseling services as a social support service (Bektaş, 2004). Therefore, the results of this study can help counseling services to understand and learn about the international students' experience and collaborate with the university and other institutions interested in international students.

## **CHAPTER II**

### **REVIEW OF THE LITERATURE**

This chapter presents the literature related to major variables. The chapter consists of seven parts that are; (1) history and theoretical background of international students' adjustment, (2) studies on international students' college adjustment in the world and in Turkey, (3) gender, (4) acculturative stress, (5) coping skills, (6) cultural distance, and (7) perceived social support.

#### **2.1. History and Theoretical Background of International Students' Adjustment**

Systematic research on international students just started after the 1950s, when the number of research studies related to international students' social and psychological problems was high in amount (Ward et al., 2001). According to Zhou et al. (2008) in describing and analyzing the international students' adaptation process, researchers have been affected by the traditional approaches on migration and mental health and there were two main perspectives in explaining adaptation. In the first perspective, it was claimed that there were some predisposing factors that could lead to selective migration and affect the adaptation process such as bereavement, grief, loss, characteristics of individuals, or fatalism. In the second perspective, it was advocated that mental health changes might be a result of migration experiences; such as negative life events, lack of social support networks, or the impact of value differences.

After the 1980s, an approach that viewed sojourning as a learning experience instead of a medical issue emerged. This new perspective viewed sojourning as a dynamic experience for both students and host nations. The social skill acquisition and culture learning approach started to be the basis for culture learning model (Zhou et al., 2008). The term of 'culture shock' has been transformed and terms of 'adaptation' or 'acculturation' started to be used frequently. In addition, problems resulting from exposure to a new culture started to be seen as skill deficits that can be managed and improved. The adaptation process to a new culture started to be examined from social psychology and education instead of medicine. This contemporary perspective in adaptation took into consideration the three different responses: affect, behavior, and cognition which can be called as an ABC theory. At the end 3 major theories of intercultural contact came up which are (1) culture learning, (2) stress, coping, and adjustment, and (3) social identification theories.

In culture learning theory, adaptation is a mutually organized and skilled performance and sojourners need to learn culturally relevant social skills to survive and thrive in their new settings (Argyle, 1969; as cited in Zhou et al., 2008). Culture specific variables such as cultural distance, language /communication competency, and culture related knowledge was thought to be affecting adjustment process. Orientation programs or behavior-based social learning skill training are suggested for intervention. In stress and coping perspective, adjustment is seen as a stressful life change and sojourners need to develop certain coping strategies to deal with stress (Lazarus & Folkman, 1984). In coping and stress framework, both personal (personality, life changes) and situational (social support) factors are effective in adjustment and for facilitating adjustment process stress-management skills should be taught to sojourners. In social identification perspective, identity is

fundamental for sojourners and adjustment may involve changes in cultural identity and inter-group relations (Deaux, 1996, Phinney, 1990, as cited in Zhou et al., 2008). Knowledge of the host culture, mutual attitude between host nationals and sojourners, cultural similarity, and cultural identity were seen as effective factors in the adjustment process. As intervention guidelines to facilitate the adjustment process, developing/enhancing self-esteem, removing barriers to inter-group harmony and emphasizing inter-group similarities are suggested.

In addition to the theoretical perspectives proposed, there are other different theories in the cross-cultural literature that are used to understand international student experience. One of those is a famous one in the literature that is named U curve theory (Oberg, 1960). This perspective sees the student's entering a new culture as a 'honeymoon' stage assuming that the sojourner will have a positive attitude towards the new culture and will be quite excited and fascinated. The second stage is 'culture shock' that is seemed as a bottom point resulting from not being able to adapt to the culture properly and becoming aware that the individual needs to learn to live with a new culture on a daily basis. The third stage is 'recovery' in which there is a climbing up and reaching to cultural acceptance and adaptation. In other words, you adapt to new culture and learn how to behave properly. In the last stage called 'adjustment' you function effectively in the new culture and learn to live with the new culture in a daily basis.

One another approach sees the adaptation process as a learning and recovery. The international student is thought to be in a psychological journey starting from the out point to the center of the culture and from a state of ignoring to a state of understanding and empathy (Lewthwaite, 1996).

Another model is a cross-cultural adaptation model of Anderson (1994). The model sees the adjustment process as finding a response or solution to overcome the obstacles in the adaptation process. Here, the individual can choose one of four ways to adapt to the new culture. Those four ways are: changing the environment, changing the self, doing nothing, and avoiding.

Berry's acculturation attitudes (Berry, Kim, Power, Young, & Bujaki, 1989) can also explain adaptation process. Berry argued that there are two fundamental dimension of acculturation that are (a) maintenance of own home cultural identity and (b) maintenance of relations with other groups which results in four acculturation strategies that are integration, separation, assimilation and marginalization. These strategies are defined as:

- *integration*: it occurs when the individual maintains own culture and also eager to engage in daily interactions with the host
- *separation*: it occurs when the individual chooses to maintain own culture and avoid relationships with host culture
- *assimilation*: it occurs when the individual ignores own culture and value relationships and maintenance with the host culture
- *marginalization*: it occurs when the individual neither values the home nor the host culture.

Berry et al. (1987) advocates that these acculturation strategies affect the level of acculturative stress and acculturative stress found to be affecting the adaptation process of individuals (Ward & Rana-Deuba, 1999).

Another perspective on adjustment is Ward and colleagues' (Ward & Kennedy, 1999) view that cross cultural adaptation has two dimensions which are psychological and sociocultural. Psychological adjustment refers to the psychological well-being or satisfaction and sociocultural adjustment refers to the individual's ability to interact sufficiently and culturally appropriate with the members of the host culture. Psychological and sociocultural adjustments are empirically and conceptually distinct but they are related. Psychological adjustment is predicted by life changes, locus of control, social support, personality, and cultural fit of personality whereas sociocultural adjustment is predicted by cultural knowledge, contact with host-nationals, language proficiency, length of residence, and cultural distance.

Last perspective is the one that was described by Baker and Siryk (1984). In this model, international student adjustment is examined under four main adjustment types: academic adjustment, social adjustment, personal/emotional adjustment, and attachment. This is the approach that is used for the present study since the Student Adaptation to College Questionnaire developed by Baker and Siryk is the instrument that has been widely used to measure the college adaptation of international students. The subtitles of adjustment cover many experiences of the international students.

*Academic adjustment* includes motivation (attitudes towards academic goals, motivation for doing academic work and being in college), application (how well the motivation is applied to academic work and meeting academic requirements), performance (success and effectiveness in academic functioning), and academic environment (satisfaction with the academic environment).

*Social adjustment* covers general (extent and social activities and functioning in general), other people (relationship with others), nostalgia (dealing with social relocation), and social environment (satisfaction with the social aspects of college environment).

*Personal-Emotional adjustment* is divided into two parts that is psychological (sense of psychological well-being) and physical (sense of physical well-being).

Lastly, *attachment* covers two parts; general (feelings and satisfaction being in college in general) and this college (the feelings and satisfaction with the college in which student is enrolled).

## **2.2. Studies on International Students' College Adjustment in the World and in Turkey**

Since the number of international contact between cultures and countries increased day by day, the number of international studies naturally increased. International students are one of the research study subject that should be understood better in the field of international studies.

As the literature indicates, adjustment is a complex and multifaceted concept (Ramsay et al., 2007) and there are many factors and variables related to international studies that need to be researched. Some of the studies in the world and in Turkey are examined in this part of the current study to give a general picture about literature on international students.

Some researchers did research and conduct studies on general college adjustment of international students (Cemalcilar & Falbo, 2008;

Lewthwaite, 1996; Poyrazli & Grahame, 2007; Russell, Rosenthal, & Thomson, 2010). In their longitudinal study Cemalcilar and Falbo (2008) collected data from 90 international graduate students with a mean age of 25.3., 62 % of the participants were male and the 38% were female. The respondents were from 26 different countries. The first data was collected in June and the second collected on mid-November. At the end of their study, after comparing the scores of well being in the first and second data collection, they found a decline in psychological well being of international students, which revealed that first 4 months of college adaptation is challenging and effective. Therefore, orientation and support programs are needed. The study also revealed that the international students who have low identification with both their home and host culture (*marginalized* acculturation attitude) found to have the highest stress while the students with high identification with both home and host culture (integration acculturation attitude) found to have the lowest stress.

Lewthwaite (1996) conducted a study to explore and define the international student experience and adaptation to their new academic, social, cultural, and linguistic environment. The participants of the study were 12 international post-graduate students enrolled in Massey University (in New Zealand) with a mean age of 25.6, coming from four different East Asian countries that are Indonesia, Taiwan, Thailand, and Japan. Six of the students were male and the six were female. A likert type instrument with 59 items covering the aspects of cultural adaptation, academic issues, language issues, and personal and counseling issues were filled out by the students and the researcher also carried out interviews with these students to understand their adaptation process deeper. Results of the study briefly revealed that; although the students reported feelings of loneliness, mismatch of culture, anxieties about the lack of deep integration with the host

society, there was no reports of high levels of stress. The greatest block to adaptation of these international students found to be the lacking of intercultural communicative competence especially in the dimension of language competency.

To examine the general adaptation to college, Russell et al. (2010) conducted a project study in a large metropolitan university in Melbourne Australia to investigate whether there are different ways of adapting in international students. The sample consisted of 979 international students. The researchers developed a questionnaire for the study that was exploring three domains of international students' well-being. The dimensions were (a) relating to others while living in Melbourne, (b) living and studying in Melbourne, and (c) health and health related behavior. The study results revealed three different patterns of adaptation to college which were called as *positive and connected* (58.8% of students were found to be using this adaptation pattern), *unconnected and stressed* (34.4% of students were found to be using this adaptation pattern), and *distressed and risk-taking* (6.7% of the students were found to be using this adaptation pattern). The *positive and connected* group of international students show significantly higher levels of self-esteem, social interactions with Australians, are satisfied with the living arrangements than the two other groups (*positive and connected* and *distressed and risk-taking*). They also show lower levels of stress and need of help from health and counseling services. The authors state that the *positive and connected* and *distressed and risk-taking* are not maladaptive, they are less positive ways of adaptation since none of the groups showed pathological levels of psychological distress in the results of study.

Poyrazli and Grahame (2007) conducted a study to examine the barriers to international students' adjustment to college and general

needs of international students. In their qualitative study 15 undergraduate international students participated in focus groups each consisting of 4 students. The interviews were semi-structured and initial transition, academic and social life, and psychological experiences were the topics covered in the groups. The interviews were recorded and then transcribed. The interviews revealed important and detailed data about the needs of international students. It was found that at the very beginning when international students arrive their new country, they need help in accommodation, food, health care, and access to transportation especially if the campus is out of the city center. They also stated that they needed assistance about campus life and how to use library and computer facilities. To meet this need of assistance international students suggested that an international student preferably from their own country would have assisted them about campus life. They also reported that they need help about health care and financial issues such as finding a job. Lastly, it was found that the academic experiences, with inside and outside of the campus with professors and advisors, were significant in the adjustment process.

In addition to the general college adaptation studies on international students, some other researchers studied on psychological and sociocultural adjustment of international students (Spencer-Oatey & Xiong, 2006; Ward, Okura, Kennedy, & Kojima, 1998), social adaptation of international students (Dorozkhin & Mazitova, 2008), cultural adjustment of international students (Kagan & Cohen, 1990), and personal adjustment of international students (Al-Sharideh & Goe, 1998). Although these studies do not have a direct purpose of evaluating the college adjustment process of international students, it is still worth and necessary to examine them because they are all a part of college adjustment process. They all can help to understand the experiences of international students. In addition, an international

student's adaptation to college is affected by all psychological, sociocultural and personal adjustment as it is stated in the study of Baker and Siryk (1984).

Spencer-Oatey and Xiong (2006) are among those researchers who were interested in psychological and sociocultural adjustment of international students. Their study included 126 Chinese students between the ages of 17 and 37, taking a foundation course at a British university. Researchers collected quantitative data on adjustment experiences of international students and examined correlations with age, length of stay in Britain and grade point average. Results of the study revealed that difficulties in adjusting to daily life were highly correlated with psychological stress and so with adjustment. The psychological stress experienced near the beginning of the academic year was negatively correlated with the grade point average. In addition, social interaction with non-Chinese was found to be problematic. However, the study showed that majority of the international students had few psychological and sociocultural adjustment difficulties in a general sense.

Another study on psychological and sociocultural adjustment of international students was carried out by Sümer (2009). In her study she examined the international students' adaptation to U.S. in relation to their acculturation levels, coping processes and intent to stay in the U.S. after their graduation. Totally 204 international students who engaged in a full course of academic or language program in the U.S. participated in the study. The mean age of the group was 26.75 (ages from 17 to 50). 48% of the participants were male and the rest were female. 48 % of the participants were from doctorate, 28% were from master, 21% were from undergraduate, and 2% from other programs. 51% of the participants were Asian/Pacific, 19% White European, 9%

Spanish/Hispanic/Latino, 4% Middle Eastern, 7% Black, and 9% in the other category of race-ethnicity. The results identified important gender differences regarding acculturation and coping. In both genders identification with host culture and for females Escape-Avoidance coping (wishful thinking or escaping avoiding the problems) were found to be the predictors of sociocultural adaptation. Female students showed more identification with their home culture rather than the host culture, which seemed to be decreasing adaptation level. In addition, female students found to be using more positive reappraisal and seeking social support than males. Lower likelihood of staying in U.S. after graduation resulted in lower English competency, higher levels of depression, and greater difficulty in sociocultural adaptation.

A longitudinal study conducted on psychological and sociocultural adjustment of international students was carried by Ward et al. (1998). The study participants were 35 Japanese international students in New Zealand with a mean age of 18.6. Eighteen of the students were female and 7 of them were male. The data were collected in four time periods; within the 24 hours of arrival in the country, and at 4, 6, and 12 months in New Zealand. Two different instruments were used to measure the psychological adjustment and sociocultural adjustment of the participants. It was found that the greatest adjustment problems such as feeling lonely and depressed occurred at the entry point and decreased as the time passed.

Dorozkhin and Mazitova (2008) studied the social adaptation of international students. In their study they tried to investigate the social adaptation problems of international college students. They conducted their study in Bashkiria with 429 international undergraduate and graduate students enrolled in five major higher educational institutions. A standardized questionnaire was used to collect data between the

years 2002-2004. The results of the study indicated that 24 % of the respondents complained of extreme nervousness, sleeplessness, and fatigue which were symptoms of culture shock. International students found to be not differing in terms of the education level in showing the signs of culture shock. In all years of the study, even graduate students reported symptoms of culture shock.

To explore the cultural adjustment of international students Kagan and Cohen (1990) conducted a study with 159 students, 92 (30 female, 62 male) of them were international and 67 (24 female, 43 male) of them were American students. International students were from Asia (n = 58), Europe (n = 16), Africa (n = 10), Central and South America (n =6), and Canada (n =2). The results showed that employment level, the host language spoken at home; having both home and host friends, internal decision making and work value affected the cultural adjustment process of international students. As an interesting point, speaking English at home was found to be the single factor contributing to both cultural and personal and social adjustment. It was also found that cognition has influence on the adjustment process and high external decision making style predicted low adjustment. The ones who used internal sources in decision making were found to better adjust than those who made decisions according to external factors.

The personal adjustment of international students was researched by Al-Sharideh and Goe (1998). Their study was conducted with 226 international students from 67 different nations in Kansas State. Data were collected via a survey administered by telephone. The main result of this study was, having strong ties with both the host culture and co-nationals facilitated the personal adjustment to life for international students and supported their self-esteem. Strong ties with the host culture found to be independently related to personal adjustment,

whereas the relationship between assimilation of new culture and personal adjustment was found to be conditional in terms of the strong ties with co-nationals.

In addition to the studies of psychological, social, and cultural adaptation, some researchers examined the international student experience under different titles with various variables. One of those studies was carried by Yang et al. (2005) to examine the role of self-construals and English language confidence on cross-cultural adaptation of international students in Canada. In the study 81 students coming from collectivist cultural orientation (Middle East, East & South Asia, Latin & South America, and East & West Africa) and 135 Canadian born students were included. At the end of the study it was found that language is a significant factor in adaptation process. Language self-confidence was associated both with psychological adjustment and with sociocultural difficulty. In other words the international students who are competent in English were better adjusted psychologically and students with low English competency seemed to have sociocultural difficulties and problems in fulfillment of everyday tasks in the host culture.

There is another study in which both international and host culture students took part. Hechanova-Alampay et al (2002) carried out a study with the purpose of examining the adjustment and distress/strain responses of international and domestic students during the first six months of their enrollment in a medium-sized, mid-western U. S. university. Two hundred ninety four students, 188 of them were domestic and 106 of them were international students, were the sample of the study. The international students represented 37 countries from Europe, North America, Central and South America, and Africa. 72 % of the sample was female and the 28 % was male. The study was a

longitudinal one that was conducted over a six months period with three different times; (1) first month of the school semester including two weeks before the start of classes, (2) three months after the first survey administration, and (3) six months after the first survey administration. The findings of the study revealed that international students experienced greater difficulty than domestic students in adjustment during their initial transition into the university. As the time passed, international students' adjustment increased but their level of strain showed a curvilinear pattern reaching at the top point three months after the semester started. Self-efficacy, social support, and cultural novelty found to be predicting adjustment and strain in all three times of survey administration.

Toyokawa and Toyokawa (2002) examined the association between the extracurricular activities and the adjustment to campus life. In this study, extracurricular activities referred to the activities out of academic related activities such as voluntary work, having a hobby, engaging in cultural activities and socializing with friends in and out of campus. Eighty four Japanese students attending an American university, 41 male and 44 female with a mean age of 20.98, participated in their study. A survey developed for an administrative purpose to collect information on to what extent the students adjusted to the life on an American campus was used to collect data for the study. The survey included sections covering students' academic and out-of class experiences, relationship with friends, and physical and mental health. The results of the study showed that the extracurricular activities were positively related to the general life satisfaction of international students. The students who reported higher engagement in extracurricular activities were found to be more satisfied with life in general than those students who reported lower levels of engagement.

In addition to the international student studies in the world, there is limited number of studies carried out on international students in Turkey, but in low number. Although they did not directly focus on the college adjustment process of international students, which shows that research on college adjustment needs attention in Turkey, the results of these studies can help the researchers to have idea about the properties of international student group in Turkey.

Dilmaç, Hamarta, and Aydoğan (2010) examined the relationship between psychological symptoms and self-esteem of the students from Turkic republics in Turkey. The study was conducted in Selçuk University in Turkey. Participants of the study were 207 (184 male and 23 female) students in total between the ages of 16-28, with a mean of 21.42. Survey results indicated that 50% of the students demonstrated psychological symptoms at various levels. Anger, obsession, and psychotic symptoms were found to be the predictors of self-esteem.

Pirliyev (2010) conducted a study with 132 Asian students enrolled in Bursa Uludağ University to examine the college adjustment process of international students. She examined the relationship between general adjustment of international student, educational adjustment, cultural adjustment and language proficiency level. At the beginning she collected data from 214 international students (79% male and 21% female), but only included 132 Asian students since that population was enough for her study. The results revealed that the difficulties in educational adjustment did not affect the general adjustment process negatively. The language proficiency was not found to be contributing to general adjustment of international students. Lastly, the difficulties in cultural adjustment found to be affecting the general adjustment process.

Another study was conducted by Şen (2008) to understand the experiences and opinions of international students regarding communication experiences in the education settings of the university life. 58 international students were participated in the study coming from Asia, Africa, Europe, and Turkish backgrounds. Thirty two of the participants were male and 26 of them were female. The study result confirmed that international students generally had positive communication experiences at their universities and some dimension of students' communication experiences might differ according to gender, education level, and cultural background.

Karaoğlu (2007) examined the adaptation behavior of international students with a sample consisting of 200 (64 female and 136 male) international students who were graduated from Gazi and Ankara TÖMER language courses. The participants were between the ages of 18-25. 41.5% of the participants were from Middle East, 33% of them from Middle Asia, 13.5% from Africa, 7% from Far East, and 5% from Europe. The results revealed that communication skills and adjustment were correlated. Language and cultural distance were also found to be effective factors in the adjustment process.

### **2.3. Gender**

In the literature, there are some contradictory results for the variable of gender in relation to college adjustment of international students. For example, in some of the studies female students showed higher levels of stress than the male students and they also found to be having poorer adaptation when compared to male students (Bang et al., 2008; Virta et al., 2004). In contrast in some other studies it was revealed that gender had no effect in the adjustment process (Poyrazli et al., 2001; Sumer et al., 2008). Şen (2008) also claimed that communication

experiences of international students might differ in nature according to gender, education level and cultural background. Furthermore, Sümer (2009) pointed out some differences in coping strategies of females and males, and also added that females demonstrate more home culture identification as acculturation strategy rather than host culture identification. Bang et al. (2008) advocated that gender is a key variable in successful adaptation of international students and reported that females having more stress but also have more social provision. The researchers claimed that the observed differences in gender might be a result of different cultural roles that were attributed to male and female, and females might be perceiving stress different than males, which can be an explanation to gender differences. As the literature states, gender difference is still blur and there are contradictory findings indicating that further research should be done on gender with different variables.

#### **2.4. Acculturative Stress**

Berry et al. (1987) defined acculturative stress as the stress taking its base from the cross-cultural encounters that can result in physical, psychological and social problems. The authors stated that there is generally a set of stress behaviors in the process of acculturation such as lowered mental health, confusion, anxiety, depression, feelings of alienation and marginality, increased psychosomatic symptoms and identity confusion. They also claimed that international students that are from the sojourner group might experience more stress than the other foreigners since they have limited social network and stressors in advance of turning back to their home country. As the adjustment process is multifaceted as mentioned before and as the acculturative stress affects the physical, psychological and social aspects of individuals; it can be referred that acculturative stress directly has an influence on college adjustment of international students. Moreover

since adaptation is one phase of acculturation according to the perspective of Berry (1980, as cited in Bektaş, 2004), acculturative stress has impact on adjustment. The research studies focusing on directly acculturative stress and adjustment are limited but studies of acculturative stress with other variables that are possibly related to adjustment such as gender, age, language proficiency, social support, cultural distance can give idea about the possible relationship between acculturative stress and adaptation as well.

In their study Berry et al. (1987) examined 13 studies that were conducted on acculturative stress with totally 1197 individuals. The examined studies involved immigrants, refugees, sojourners, native peoples and ethnic groups. In the sojourners group three studies on international students regarding acculturative stress were examined. In one study sample consisted of 72 Malaysian students (23 males and 49 females) living in Kingston and Ontario, on ages 17 and over. The second sample was 71 Chinese students (48 males and 23 females) enrolled in Queen's University, aged 18 to 27. The last sample consisted of 97 students (60 males and 37 females, mixed in nation), aged 18 to 40. Based on the results of the study, the predictors of acculturative stress were listed as education level, cognitive ability, acculturation attitudes, previous acculturative stress experience and contact experiences. Other significant results of the study might be; higher the education level, lower the acculturative stress; existence of previous cross cultural experience and experience of acculturative stress and higher the acculturative stress; greater and more the social contact and relationships with host nationals, lower the acculturation stress; higher the social support lower the acculturative stress. Lastly acculturation attitudes of assimilation, integration, separation, and marginalization were found to be predictive of acculturative stress. The

integration with host society seemed to decrease the acculturative stress while separation increases the stress levels.

In another study, again the acculturative stress predictors tried to be clarified. Yeh and Inose (2003) carried out a study to explore whether age, gender, reported English fluency, social support satisfaction, and social connectedness were predictors of acculturative stress. The sample of the study was 359 international students from Asia, Europe, Central/Latin America, and Africa. There were 217 females and 142 males between the ages of 18-58 with a mean of 27.04. Surveys were given to students in international student organizations and clubs. At the end of the study English fluency, social support satisfaction, and social connectedness were found to be predictors of acculturative stress. Social support also found to be an effective way of coping with acculturative stress.

In their study Pan, Wong, Joubert, and Chan (2007) aimed at comparing the predictive effects of acculturative stressor and meaning of life on negative affect in the process of acculturation among the Chinese students in Australia and Hong Kong. 400 Chinese students (200 male 200 female) at six different universities of Hong Kong and 227 international Chinese students (75 male 152 female) enrolled in Melbourne University. Participants completed a questionnaire including measures of acculturative stressor, meaning of life, negative effect, and demographic information. According to the results of the study, the Australian sample found to have higher levels of acculturative stressors and negative affect compared to the Hong Kong sample. In both of the samples, acculturative stressor found to have positive impact on negative affect but the impact of different domains of acculturative stressor on negative affect varied between the two groups. Lastly, the meaning of life seemed to partially mediating the relationship between

acculturative stressor and negative affect just in the Hong Kong sample, no such effect was found in the Australian sample.

Poyrazli et al. (2004) in their study examined the relationships among social support, age, gender, marital status, academic achievement, ethnicity, English language proficiency, and patterns of social contact with international versus host nation as they affected the acculturative stress. A hundred forty one international students aged between 19-43 from four universities of U.S. participated in the study. 61% of them were male and 39% of them were female. Students were European, Asian, Middle Eastern, Latino, African, and from other nationalities. The surveys were mailed to participant and 24% (141 in number) of the 585 students responded back. The significant results of the study were; higher the English competency, cultural distance, and social support lower the acculturative stress; and higher the relationship with co-nationals higher the acculturative stress. Social support and English competency were found to be predictors of acculturative stress.

## **2.5. Coping Skills**

For the purpose of coping with problems related to adaptation, individuals develop various types of coping (Sümer, 2009). Within the approach of stress and coping Lazarus and Folkman (1984) grouped coping skills as problem-focused and emotion-focused. Problem-focused coping strategies involves the coping skills that aim solving the stress related problems with taking active steps to change the situation and emotion-focused coping strategies refer to the attempts of regulating the emotions resulting from the problems. Holahan et al. (1996, as cited in Tuna, 2003) also grouped coping skills in other two groups that were approach and avoidant coping. In approach coping, the individual attends to the stressor to reducing or managing the

unpleasant results. In avoidant coping individuals take or distance the self away from the stressor and its results. In the literature examples of approach coping were stated as planning, monitoring, venting, strategizing, arguing, and seeking information or knowledge and the examples of avoidance coping were listed as avoiding a threatening and unpleasant situation, selective attention, distraction, discounting, psychological distancing, and keeping the self away from the source of stress (Anshel, Kang, & Miesner, 2010). Diaz-Guerrero (1979) also categorized coping strategies as active and passive. As the name implies, in the active coping, the person takes the action to change the problematic situation and in the passive coping, the person chooses patience and self-modification.

Regarding the concept of coping skills related to international students, several studies in the literature indicated that some coping skills are predictive of college adjustment of international students or there is a significant relationship between the two (Khawaja & Dempsey, 2007; Lin, 2006; Olivas & Lee, 2006; Yusoff & Chelliah, 2010). Some other studies directly examined the relationship between coping skills and college adjustment of international students (Liu, 2005; Pritchard et al., 2007; Sümer, 2009; Tuna, 2003; Ward & Kennedy, 2001).

In her study, Sümer (2009) examined the relationship between coping styles and college adjustment of international students under the title of psychological and sociocultural adaptation of international students in the U. S. The study with 204 international students who engaged in a full course of academic or language program in the U.S. revealed gender differences regarding acculturation and coping. In both genders, identification with host culture and for females Escape-Avoidance coping (wishful thinking or escaping avoiding the problems) were found to be the predictors of sociocultural adaptation. Moreover, female

students were found to be more likely of using the coping styles of positive reappraisal and seeking social support.

Pritchard et al. (2007) also conducted a study and explored the relationship between coping strategies of students and their college adaptation. 242 freshmen students participated in this longitudinal study at the beginning and at the end of their first education year. The participant students responded the questions in the surveys about their physical health, alcohol use and smoking habits, stress level, perfectionism, self-esteem, coping tactics, optimism, extroversion, and psychological adaptation to college. The data showed declines in students' psychological and physical health at the end of the year. Negative coping styles and perfectionism were found to be predictive of poorer psychological health and alcohol use of students at the end of the year. Perfectionism, low optimism, extroversion, and low self-esteem accounted for the decreases in the physical and psychological health of students. However, high optimism and self-esteem predicted better physical and psychological outcomes for students.

In addition to the studies above, Ward and Kennedy (2001) also found a relationship between coping styles and adjustment. 113 British citizens living in Singapore participated in the study. 61 of them were male and 52 of them were female. 83% of the participants reported themselves as sojourners and 15% them as temporary residents, the other data were missing. Questionnaires for the study were sent via mail and participants responded back. At the end of the study some coping styles found to be predictive of poor and facilitated psychological health. For example, avoidant coping style (that encompassed behavioral disengagement, denial, venting of emotions, the inability to see the potentially positive aspects of change, and mental disengagement) resulted in poorer psychological health while using humor and approach

coping style (including planning, active coping, and suppression of competing activities) facilitated psychological health. Acceptance and social support were found to be unrelated to the adjustment process.

Liu (2005) recruited 9 international students (5 Taiwanese, 4 Japanese) from Rutgers University and carried out a semi-structured interview with open-ended questions. The questions were related to cross cultural experiences of the students about culture shock, interpersonal stress, and future plans. The researcher reported that these students were using telephone and internet to comfort themselves and also got help and support from their families, relatives, or spouses. Those who were single were found to be less comfortable than those living with relatives, married or have spouses.

Lastly, a study that examined the college adaptation and coping skills relationship was conducted by Tuna (2003). The purpose of the study was to examine and compare the different coping strategies' effects on different dimensions of college adaptation of first year students in Turkey and U.S. The sample of the study consisted of 1143 university students, 695 (312 female, 382 male) of them from Turkey and 448 (238 female, 210 male) of them from U.S. For the U.S. sample 83% of the students were Caucasians, 17% were Indian-Americans, Asian-Americans, African-Americans, and Hispanics. The results revealed that active coping and using emotional support positively predicted the overall adjustment of students while denial, behavioral disengagement, substance use, and religion negatively predicted first-year students' overall college adjustment in both Turkish and American samples. The researcher also reported that excessive academic, emotional, and social demands leded students to use various and greater number of coping strategies regardless of whether these coping strategies are functional or not. Differences in the effects and use of behavioral

disengagement, religion and positive reframing were found in two samples.

## **2.6. Cultural Distance**

Cultural distance was first defined by Babiker et al. (1980) as the distance between culture of origin and the host culture. In many studies examining the cultural distance and adjustment relationship it was reported that higher the cultural distance between one's own culture and the host culture lower the adjustment to the new culture (Karaoğlu, 2007; Poyrazli et al., 2004; Pan et al., 2007; Ward & Kennedy, 1999; Yang et al., 2005; Yeh & Inose, 2003). Some other researchers stated that as the cultural distance increases the probability of existence of social problems in an individual's adjustment process also increases (Chapdelaine & Alexitch, 2004, Searle & Ward, 1990). Another study revealed that as the cultural distance increases acculturative stress and negative emotions that an individual faces also increase (Pan et al., 2007). In contrast to the studies reporting a relationship between cultural distance and adaptation some studies did not find any relationship between the two (Bektaş, 2004; Çiftçi, 2006). Examining the studies that investigated the effects of cultural distance can help us to better understand the adaptation of international students in terms of how differences between home and host culture affect them.

Suanet and Van de Vijver (2009) conducted a research study in Russia with (110 female and 77 male) first year exchange students. The mean age for the sample was 21.24. The aim of the study was examining the relations between perceived cultural distance, personality, acculturation orientations and outcomes. The hypothesis of the study was the larger perceived cultural distance was associated with lower psychological and sociocultural adjustment. The study results supported the

hypothesis and cultural distance and adjustment showed statistically significant associations. Moreover, as the students perceived more cultural distance, interactions with host nationals decreased while stress levels and homesickness increased. Perceived cultural distance was also found to be related to personality. For example, the emotionally more stable and flexible individuals found perceiving less cultural distance.

Furukawa (1997) also examined the effect of cultural distance on adjustment of international students. The aim of the study was to understand whether the cultural distance influenced the psychological adjustment of international exchange students and if yes which aspects were more influential. The sample of the study consisted of 211 Japanese high school and college school students who stayed for one year with a host family in 23 different countries in the world. Participants were asked to complete the surveys after six months they return from abroad. The study indicated the expected result and it was found that as the perceived cultural distance increased, the psychological adjustment of the students negatively affected and lower levels of adjustment were seen. In addition, highly perceived cultural distance increased the emotional distress of students.

In another study, cultural distance and cultural shock relationship was examined (Chapdelaine & Alexitch, 2004). In this study, the focus was effects of cultural differences, size of co-national group, family status, cross-cultural experience, and social interaction with hosts on culture shock. The sample consisted of 156 male students enrolled in a Canadian university. Ages of students changed between 25 and 34. The hypothesis of the study that higher degrees of cultural distance between the students' home and host culture were associated with social difficulty in cross-cultural integrations was supported with the

study results. As the cultural distance increased interaction with host nationals decreased and cultural shock increased.

## **2.7. Perceived Social Support**

Sarason and Sarason (1982) define support as “help that would be available to an individual in difficult or stress-arousing situations” (p. 331) looking from a perspective that sees social support a kind of coping mechanism with stressful situations. Demeray and Malecki (2002) define perceived social support as an individual’s perception of general support or specific supportive behaviors that are available from the people around the individual that facilitates the functioning or working as a buffering or mediating tool. Cohen and Willis (1985) make a categorization of social support under four types that are emotional, informational, social companionship and instrumental support. They also state two different views of social support. One is advocating that social support can directly result in positive outcomes in a stress free environment. In other words, social support can facilitate the current situations, help in creating more positive environments and avoid negative consequences for the individual. The other view suggests that social support has a buffering and moderating effect in the stressful situations of individuals through decreasing the impact of negative outcomes or helping the individual to control the stressors or their effects. Cohen and Mckay (1984) also explain the buffering effect of social support as stating that when an individual’s sense of belongingness is deprived, support system replaces with it. Moreover, they report that it is possible that belongingness itself can meet the needs that are necessary for a normal and healthy life.

After summarizing the main perspectives on social support, it would be meaningful to explore how studies of international students view social

support. Many of the studies reporting the relationship between perceived social support and adjustment of international students revealed that social support has a positive effect on the adjustment process (Al-Sharideh & Goe, 1998; Poyrazli et al., 2004; Yang et al., 2005; Yusoff & Chelliah, 2010) while some studies reported that social support was unrelated to adjustment outcomes (Ward & Kennedy, 2001). There are also some studies examining the relationship between social support and international student adjustment.

One study on the relationship between adjustment and social support in international student experience is the study of Lin (2006). The researcher interviewed 50 graduate students and spouses aged between 23 and 42. 57% of the participants were female and 43% of them were male. The interviews were semi-structured and generally in an informal format. The interviews were not recorded, rather the researcher took post-interview notes based on the memory after the interviews had finished. Participant observation and focus groups were also used in collecting data. The results of the study were in line with the literature that social support helped the students better adjust to the college and campus life. Furthermore, the study revealed that the university staff support offered the new comers acceptance and assurance. Even the mails and messages sent to the students helped to relieve pressure and stress.

Ramsay et al. (2007) focused on many aspects of social support in relation to college adjustment process of international students. They examined the relationship between adjustment and support types, sources and levels of support, and satisfaction with levels of support for the first year students enrolled in an Australian University. Totally 280 students from Faculty of Commerce participated in the study. 44% of the students were male and 56 of them were female. Age of the

students ranged from 17 to 50 and the researchers grouped them as young and matured-aged (aged 22+, 145 in number) students. 195 of the students were local (95 young, 100 matured-aged) and 85 of the students were international (40 young, 45 matured-aged). The international students were mostly from Hong Kong, Taiwan, Malaysia. Comparisons were made between the young and matured-aged group and local and international students. The results of the study revealed valuable and detailed information about the social support and adjustment relationship from many aspects. Adjustment and social support found to have a significant two-way interaction which means well-adjusted students received higher levels of emotional, practical, and social companionship support and at the same time those who received higher levels of support showed better adjustment. It was also found that host and international students differed in terms of the support sources. For example, local students were more likely to receive emotional support from partners than international students. For the total group, support was mostly received from friends (45.8%), followed by partners (21.4%), family (20.6%), no-one (7.3%), and professionals (5.0%). Lastly and interestingly, both host and international groups would have liked more social support. Likewise, in another study, expectations for more support were also reported by international students (Rosenthal et al., 2007).

Zhai (2002) also explored the relationship between adjustment of international students and social support. The study investigated the international student adjustment to college and needed social support and their help-seeking behavior. Ten students at the Ohio State University were interviewed for the study. Five of the students were male and five were female, five were married and five were single with a mean age of 33. All of the students were graduate students, four from master's and six from doctorate program. The gathered data from the

interviews were transcribed and a content analysis was performed. The results of the study indicated that international students experienced significant problems related to coping with U.S. education system, cultural differences, and language challenges. Food, living practicalities, time management and social integration were the subjects that students reported to having problems related. For the social support part, it was found that friends and family were the most preferred social support source to seek help. For especially emotional and psychological problems international students had tendency to seek help from friends and family and most of the students reported that they were not aware of counseling services in the campus. An orientation program on academic and cultural differences was suggested according to the results of the study. It was also mentioned that collaboration with international student offices is necessary for academic staff and all people who were interested in international students.

Lastly, Ward and Kennedy (2001) found an interesting result in their study with 113 British citizens living in Singapore. In their study they examined the relationship between the coping styles and adjustment and social support was accepted as one way of coping in the study. While they found a significant relationship between avoidant coping, humor, approach coping and adjustment, acceptance and social support were found to be unrelated to the adjustment process.

In conclusion, in this chapter literature regarding theoretical background on international students' college adjustment process, studies on international student college adjustment in the world and in Turkey, gender, acculturative stress, coping skills, cultural distance, perceived social support and relationships among these variables were examined. The theoretical part demonstrated and supported that college adjustment is a multifaceted process (Ramsay et al., 2007). According

to the examined literature, most of the studies revealed that acculturative stress, coping skills, cultural distance, and perceived social support were predictive of adjustment of international students while studies reported contradictory result regarding gender. Some studies demonstrated that female students have higher stress levels than male students and having poorer adaptation (Bang et al, 2008; Virta et al., 2004). However, in other studies, it was found that gender has no effect in adjustment (Poyrazli et al., 2001; Poyrazli et al., 2002, Sumer et al., 2008).

Acculturative stress also found to be related to college adjustment of international students, higher the acculturative stress, lower the adjustment (Berry et al, 1987; Pan et al., 2007). In addition to acculturative stress, some coping skills were found to be predictive of college adjustment of international students in the literature (Berry et al., 1987; Sümer, 2009, Tuna, 2003). Similarly, as a cultural factor cultural distance was also found to be effective in adjustment process and higher the cultural distance lower the college adjustment (Rosenthal et al., 2007; Suanet & Van de Vijver, 2009; Yeh & Inose, 2003). However, some other studies stated that cultural distance may not be predictive of adjustment (Bektaş, 2004; Hechanova-Alampay et al., 2002). Lastly, perceived social support was also stated as an influential factor in college adjustment of international students in most of the studies, higher the social support better the adjustment (Al-Sharideh & Goe, 1998; Poyrazli et al., 2004; Yang et al., 2005; Yusoff & Chelliah, 2010). However, some other researchers reported contradictory results indicating no effect of social support on adjustment (Ward & Kennedy, 2001). Taken collectively, it seems worth examining the value of gender, acculturative stress, coping skills, cultural distance and perceived social support in predicting college adjustment of international students.

## **CHAPTER III**

### **METHOD**

This chapter consists of seven sections. The first section gives the information about the overall design of the study. The second section describes the participants of the study. The third section gives detailed information about the data collection instruments. The fourth section presents data collection procedure of the study. The fifth section explains the variables of the study. In the sixth section data analyses conducted for the study are given. Finally, the last section summarizes the limitations of the study.

#### **3.1. Overall Design of the Study**

The overall design of the study is correlational. Correlational research design is a kind of design in which possible relationships of two or more variables are investigated and describing the degree to which two or more variables are related (Fraenkel & Wallen, 2005). There is no manipulation of variables because the design describes an existing relationship among variables.

The purpose of the study is to investigate the relationships between the dependent variable (college adjustment) and a set of independent variables (gender, acculturative stress, coping skills, cultural distance, and perceived social support). Personal Data Sheet (Appendix A), Student Adaptation to College Questionnaire (SACQ) (Appendix B), An Acculturative Stress Scale for International Students (ASSIS) (Appendix C), Cultural Distance Scale (Appendix D), The Multidimensional Scale

of Perceived Social Support (MSPSS) (Appendix E), and Brief COPE Scale (Appendix F) were administered to international university students. Descriptive analysis and hierarchical multiple regression analysis were used to analyze the data.

### **3.2. Participants**

The participants of the study were voluntary international university students enrolled in the universities of Ankara. Convenient sampling was used for selecting the participants. Only the international students who came for the university education were selected for the study, exchange students were excluded. 265 international students filled out the measures; however, 95 of them were excluded from the study because they had left unanswered more than half of the scales. At the end, 170 students were included in the study. 135 (79.4%) of the participants were male and 35 (20.6%) were female. The age of the participants ranged from 17 to 31 with a mean of 22.1 ( $SD = 2.6$ ). The participants came from 36 different countries and 30 different native languages reported in the Personal Data Sheet. 72 (42.35%) of the participants were from Turkic Republics, constituting the majority of the sample. The rest of the participants were from different regions of the world. Forty-seven (27.7%) of the participants were from Asia, 29 (17%) of them were from Europe, and 22 (13%) of them were from Africa. Table 3.1 summarizes the demographic characteristics of the participants.

Table 3.1  
*Percentages, Means, Standard Deviations and Ranges of Demographic Variables*

	<i>Percentage</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Range</i>
Age			22.1	2.6	17-31
Gender					
Male	79.4	135			
Female	20.6	35			
University					
METU	68.8	117			
Gazi University	21.2	36			
Ankara University	7.0	12			
Hacettepe University	2.4	4			
Bilkent	.6	1			
Academic Year					
Freshman	21.8	37			
Sophomore	14.7	25			
Junior	20.6	35			
Senior	30.6	52			
Master/Doctoral	12.4	21			
Major Area					
Business & Management	10.6	18			
Computer & Information	4.1	7			
Services					
Education	11.8	20			
Engineering	35.9	61			
Health Professions	14.1	24			
Physical Sciences	5.3	9			
Psychology	.6	1			
Social Sciences	12.9	22			
Miscellaneous	4.7	8			

Table 3.1. Continued

*Percentages, Means, Standard Deviations and Ranges of Demographic Variables*

	<i>Percentage</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Range</i>
Financial Support					
Family	60.6	103			
Native Government	10.6	18			
Turkish Government	15.9	27			
College/University	3.5	6			
Other	4.9	16			
Where They Learned Turkish					
In Turkey	52.9	90			
In native country	47.1	80			
Turkish					
Reading			4.1	1.1	1-5
Writing			3.8	1.2	1-5
Speaking			4	1.3	1-5
English					
Reading			4.4	.77	2-5
Writing			4.1	.83	1-5
Speaking			4	.91	1-5

As shown in the table, majority of the participants enrolled in METU (n= 117; 68.8%). In the sample, each of the academic classifications was well-represented (i.e., 21.8% freshmen, 14.7% sophomores, 20.6% juniors, 30.6% seniors, and 12.4% graduate students). Almost one third of the participants were engineering students (n= 61; 35.9%). In terms of the source of financial support; more than half of them stated that family was the major financial source (n= 103; 60.6%). Almost half of the participants (n= 90; 52.9%) have learned Turkish in Turkey. Turkish and English language competency level of the participants was measured on a 5 point scale in terms of reading, writing, and speaking. The means of reading, writing, and speaking in Turkish for the total

sample were 4.1, 3.8, and 4.0, respectively. The means of reading, writing, and speaking in English were 4.4., 4.1, and 4.0, respectively. The scores regarding language competency demonstrated that international students were competent both in English and in Turkish.

### **3.3. Data Collection Instruments**

#### **3.3.1. Personal Data Sheet**

In the Personal Data Sheet students were asked about their gender, age, the name of the university they enrolled in, their academic classification, major area of study, source of financial support, native language and country, whether they learned Turkish in Turkey or in their native country, and lastly their language ability in Turkish and English.

#### **3.3.2. Student Adaptation to College Questionnaire (SACQ)**

Student Adaptation to College Questionnaire (SACQ) was originally developed by Baker and Siryk (1984) to measure student adaptation to college. In the earlier version of the scale there were 52 items. The later and last version of the SACQ (Baker & Siryk, 1999) consists of 67 items that students are expected to respond on a 9-point Likert type scale, ranging from 1 “applies very closely to me” to 9 “doesn’t apply to me all”. The total score that a student can obtain from SACQ, ranges between 67 and 603. High scores indicate better level of adjustment to college where the low scores refer to lower adjustment to college. The questionnaire has four subscales: *Academic Adjustment*, *Social Adjustment*, *Personal- Emotional Adjustment*, and *Goal Commitment/Institutional Attachment*.

Baker and Siryk (1999) conducted many studies to test the psychometric properties of the measure. They mentioned that the estimates of internal consistency reliability are more appropriate than test-retest reliability for the questionnaire. For the *total scale*, alpha coefficients ranged from .92 to .95, for the *Academic Adjustment* subscale from .81 to .90, for the *Social Adjustment* subscale from .83 to .91, for the *Personal-Emotional Adjustment* subscale from .77 to .86, and for the *Goal Commitment/Institutional Attachment* subscale from .85 to .91. Moreover, evidence regarding the validity of the measure revealed that academic adjustment subscale scores were significantly correlated with freshman-year grade point average and election to an academic honor society; the social adjustment scale scores were correlated with a social activities checklist; the personal-emotional adjustment scores were correlated with being known by the campus psychological services in the freshman-year, and the goal commitment/institutional attachment scores were correlated with overall satisfaction with university.

The scale was adapted to Turkish by Tuna (2003). The Turkish version of the SACQ consists of 58 items with four subscales. The internal consistency coefficients for the Turkish sample was found .90 for the total scale, .80 for the Academic Adjustment subscale, .77 for the Social Adjustment subscale, .84 for the Personal-Emotional Adjustment subscale, and .77 for the Goal Commitment/Institutional Adjustment subscale.

### **3.3.2.1. The Reliability of the SACQ for the Sample of the Present Study**

In the present study, the item-total-correlations of the SACQ were checked and items below the value of .20 were excluded from the scale

(items 8, 12, 14, 17, 18, 25, 26, 27, 30, 39, 46, 47, 49). As Anderson, Ones, Sinangil, and Viswesvaran (2001) suggested, items with low item total correlations (i.e., lower than .20) should not be added to the scale since they decrease the reliability of the scale. The Cronbach alpha correlation coefficient was calculated for the remaining 54 items, and found .94 for the total scale. This indicates high internal consistency among the items of the scale.

Since the purpose of this study was measuring the general adjustment to college, the total score of the scale was used similar to the studies in the literature (Agliata, 2005; Beyer & Goossens, 2003; Hiester, Nordstrom, Swenson, 2009). The total score of the SCAQ ranged from 54 to 486.

### **3.3.3. Acculturative Stress Scale for International Students (ASSIS)**

The ASSIS was developed by Sandhu and Asrabadi (1994) to assess acculturative stress of international students. It is a Likert type questionnaire with 36 items. The responses change from 1 to 5, 1 = strongly disagree, 2 = disagree, 3 = not sure, 4 = agree, and 5 = strongly agree. The total score for the scale ranges from 36 to 180. High scores indicate higher perceived acculturative stress by the individuals. The questionnaire found to be having high internal consistency with a Cronbach alpha of .94. The validity of the scale was examined by principle components analysis with varimax rotation, and 6 factors and a nonspecific factor emerged accounting for 70.6% of the total variance. The alpha levels for the subscales are: *Perceived Discrimination* (.90), *Homesickness* (.89), *Perceived Hate* (.90), *Fear* (.88), *Stress due to change* (.79), *Guilt* (.44), and *Miscellaneous* (.84) (Sandhu & Asrabadi, 1998; as cited in Poyrazli, Thukral, & Duru, 2010).

*Perceived discrimination* items are: 3, 9, 11, 14, 17, 23, 26, 29 (e.g., I am treated differently in social situations); *homesickness* items are 1, 6, 21, 35 (e.g., Homesickness for my country bothers me); *perceived hate* items are: 4, 15, 20, 24, 33 (e.g., People from some other ethnic groups show hatred toward me verbally); *fear items* are: 7, 11, 18, 27, 31 (e.g., Many opportunities are denied to me); *stress due to change/culture shock* items are: 2, 13, 22 (e.g., I feel uncomfortable to adjust to new cultural values); *guilt* items are: 10, 34 (e.g., I feel guilty to leave my family and friends behind); and *miscellaneous* items are: 5, 8, 12, 16, 19, 25, 28, 30, 32, 36 (I feel nervous to communicate in English). The developers of the ASSIS suggested that the items in miscellaneous subscale did not fall under one particular factor, but since they address special concerns of the students they were included in the questionnaire. There is no adaptation study for the ASSIS in Turkish.

### **3.3.3.1. The Reliability of the ASSIS for the Sample of the Present Study**

Firstly, the item-total-correlations of the ASSIS were checked. Then, the Cronbach alpha correlation coefficient was computed for the 36-item scale which found to be .94 indicating a very high internal consistency among the items of the scale.

In the present study, the purpose was to measure the general acculturative stress levels of international students. Hence, considering the available empirical evidence regarding the ASSIS (e.g., Lin, 2006; Poyrazli et al., 2004; Wei, Heppner, Mallen, Ku, Liao, Wu, 2007) rather than focusing on each subscale scores, the total score of the scale was used in the subsequent analysis. Minimum and maximum scores that can be obtained from the scale ranged from 36 to 180.

### 3.3.4. Brief COPE

The Brief COPE inventory was developed by Carver (1997) to measure how much individuals use a specific coping skill. The scale has 28 items. The responses are obtained on a four-point rating scale: 1 = I haven't been doing this at all, 2 = I've been doing this a little bit, 3 = I've been doing this a medium amount, 4 = I've been doing this a lot. There are 14 subscales and each subscale has 2 items. The subscales can be listed as:

*Active coping* (items 2 and 7): It involves taking active steps to remove or overcome the stressor or remedy its effects, e. g., I have been taking action to try to make the situation better.

*Planning* (items 14 and 25): It is the thinking process of how to overcome a stressor, making up action strategies, thinking of how to handle a problem best and what steps can be suitable, e. g., I have been thinking hard about what steps to take.

*Seeking social support for instrumental reasons* (items 10 and 23): It is seeking advice, assistance, or information, e. g., I've been getting help and advice from other people.

*Seeking social support for emotional reasons* (items 5 and 15): It is getting moral support, sympathy, or understanding, e. g., I've been getting emotional support from others.

*Venting* (items 9 and 21): Focusing on the one's experiences of distress and being upset and disclosing the feelings related to them, e. g.; I've been expressing my negative feelings.

*Behavioral disengagement* (items 6 and 16): Reducing the efforts to deal with the stressor or even giving up trying to reach the goals which the stressor interferes with, e. g., I've been giving up trying to deal with it.

*Self-distraction* (items 1 and 19): Doing things to take one's mind off the stressor such as daydreaming, escaping through sleeping, or watching TV, e. g., I've been turning to work or other activities to take my mind of things.

*Positive reframing* (items 12 and 17): Construing a stressor in a positive way which can help the person to engage in active, problem-focused coping, e. g., I've been looking for something goof in what is happening.

*Denial* (items 3 and 8): Refusing to believe in existence of a stressor or thinking and behaving as if the stressor is not real, e. g., I've been saying to myself "this isn't real".

*Acceptance* (items 20 and 24): Accepting and learning to live with a stressor, e. g., I've been learning to live with it.

*Religion* (items 22 and 27): Turning to religion in times of stress, e. g., I've been praying and mediating.

*Substance use* (items 4 and 11): Using alcohol or drugs to cope with stressor, e. g., I've been using alcohol or other drugs to make myself feel better.

*Humor* (items 18 and 28): Using humor when dealing with the stressor, e. g., I've been making fun of the situation.

*Self-blame* (items 13 and 26): Blaming or criticizing the self, e. g., I've been criticizing myself.

In the study of Carver (1997) with 168 individuals who were affected by a hurricane very strongly, the reported reliability coefficients for all the subscales exceeded .60, except for Venting, Denial, and Acceptance. The factor analysis yielded nine factors accounting for the 72.4% variance.

The scale was adapted into Turkish by Tuna (2003). The researcher excluded item 10 and 23 for their low item-total correlations and analyzed the factorial structure of the remaining 26 items. The first analysis revealed eight factors that explain 60.74% of the variance, and the subsequent analysis yielded three second order factors explaining 47.53% of the total variance. For internal reliability, Cronbach alpha coefficients were calculated and values found changing between .26 and .91. The three subscales with low coefficients (.26 for venting, .33 for self-blame, and .34 for acceptance) were excluded from the Turkish version of the Brief Cope. At the end 20 items remained for the scale.

#### **3.3.4.1. The Validity and Reliability of the Brief COPE for the Sample of the Present Study**

In order to examine the factorial structure of the scale, a Principle components analysis with oblique rotation was performed based on the original procedures (Carver, 1997). The Bartlett test of sphericity ( $\chi^2 = 1338.40$ ,  $df = 378$ ,  $p < .0001$ ) yielded a significant difference between the sample data and an identity matrix, and the Kaiser-Meyer-Olkin value was .71 indicating that the data provided the statistical assumptions of multivariate normality and sampling adequacy for the factor analysis (Field, 2009). Factor loadings above .30 were accepted

as significant (Pallant, 2001). The principle components analysis with oblique rotation yielded eight factors explaining the 58.8% of the total variance. The three items (21, 26, 27) that did not load significantly on any subscale, were not included in the subsequent analysis. Carver (1997) does not suggest the use of total score for the scale, rather recommending tailoring subscales according to the coping style of interest. For example, Khawaja and Dempsey (2007) chose some of the items from the scale and called them as dysfunctional coping and used them in their study. Similarly, in another study, the subscales were collapsed into two subscales that were called active and passive coping (Kinsinger, Penedo, Antony, Dahn, Lechner, & Schneiderman, 2006). In the present study, considering the aforementioned studies, three factor solution was selected to understand positive, negative and passive coping styles of international students. The results showed that related items loaded under the same factor and first factor was called as *Positive Coping* (accounting for 17.5 % variance with 12 items), the second factor as *Negative Coping* (accounting for 12.67 % variance with 7 items), and the third factor as *Passive Coping* (accounting for 7.18 % variance with 6 items). All three subscales explained the 37.35 % of the total variance. The factor loadings of Brief COPE were presented in Table 3.2.

Table 3.2

*Factor Loadings for Brief COPE*

<i>Item</i>	<i>Factor 1</i>	<i>Factor 2</i>	<i>Factor 3</i>
7	.65		
1	.64		
25	.61		
2	.60		
14	.59		
2	.59		
12	.56		
24	.49		
13	.46		
17	.40		
18	.34		
19	.33		
8		.71	
11		.70	
4		.69	
16		.67	
6		.60	
3		.57	
9		.48	
23			.66
15			.65
10			.59
27			.59
22			.56
5			.49
Variance (%)	17.50	12.67	7.18

The Cronbach alpha coefficient was calculated for positive coping subscale, negative coping subscale, and passive coping subscale which found to be .76, .67, and .78 respectively. For Positive Coping Skills Subscale scores ranged from 12 to 48. For Negative Coping Skills

Subscale scores ranged from 7 to 28, and for Passive Copings Skills Subscale scores ranged from 6 to 24.

### **3.3.5. Cultural Distance Scale**

Bektaş (2004) developed the Cultural Distance Scale to measure cultural distance in Turkish. The questionnaire was designed by using dimensions of The Acculturation Index of Ward and Rana-Deuba (1999). In the 12-item scale, respondents are asked to evaluate to what degree their culture and host culture are different in terms of the domains stated in the scale on a 5 point Likert type scale, "1 = totally dissimilar and 5 = totally similar". In the scale, lower scores indicated greater cultural distance. For the validity of the scale, Bektaş examined the factorial structure of the scale and found three factors accounting for 55.12% of the total variance. Rather than naming the factors, Bektaş just reported which items loaded under which factor. The Cronbach alpha reliability coefficient was reported .81 for the total scale. Çiftçi (2006) adapted the Cultural Distance Scale into English. Çiftçi (personal communication, November 8, 2010) stated that since the items of the questionnaire were simple, she translated them into English and reported the alpha coefficient for the total scale in her study as .84.

#### **3.3.5.1. The Reliability of the Cultural Distance Scale for the Sample of the Present Study**

Firstly, the item-total correlations of the scale were examined and any of the items excluded. Then, the Cronbach alpha coefficient was calculated and found .84 in the current study.

### **3.3.6. The Multidimensional Scale of Perceived Social Support (MSPSS)**

The Multidimensional Scale of Perceived Social Support was developed by Zimet et al. (1988) to measure the perceived social support of individuals. It is a 7 point Likert type scale with 12 items. The responses to scale ranges from 1 (very strongly disagree) to 7 (very strongly agree). MSPSS has three subscales that measures support from three different sources which are family, friends, and significant others. Each subscale consists of four items; *family* subscale (3, 4, 8, 11; e.g., My family really tries to help me), *friends* subscale (6, 7, 9, 12; e.g., I can count on my friends when things go wrong), and *significant others* subscale (1, 2, 5, 10; e.g., I have a special person who is a real source of comfort to me). For the total score and the subscale scores, higher scores indicate high level of social support while lower scores indicate low support. Zimet et al. (1988) examined the psychometric properties of the scale with 275 (139 males and 136 females) undergraduate students and found Cronbach alpha coefficient .88 for the total scale, .87 for the family subscale, .85 for the friends subscale, and .91 for the significant others subscale.

The scale was adapted to Turkish by Eker and Arkar (1995). With a sample of university students, the Cronbach alpha was found .85 for the total scale,.87 for the family subscale,.87 for the friends subscale, and .91 for the significant others subscale. Eker and Arkar (1995) in their study with normal people and people with mental or medical health problems explored the psychometric properties of MSPSS and found that the scale has three factors in both normal and people with health problems. Those three factors accounted for 75.2% total variance for university students and 72.5% for the hospital sample. In addition, negative correlations with Beck Depression Inventory (BDI) and the

State-Trait Anxiety Inventory (STAI) were found.

### **3.3.6.1. The Reliability of the MSPSS for the Sample of the Present Study**

Although the MSPSS has 3 subscales, the literature provides evidence that the total score of the scale can be used (e.g., Cheng & Chan, 2004; Picardi et al., 2003; Wu & Serper, 1999). For the purpose of the current study, the total score of the scale was used. Cronbach alpha correlation coefficient was calculated for the total scale and found as .88.

### **3.4. Data Collection Procedure**

Four measures (SACQ, ASSIS, Cultural Distance Scale, and Brief COPE) and a personal data sheet were used to collect data. Before conducting this study, first the permissions for use of SACQ was granted from Western Psychological Services since the instrument need payment for use. Then, necessary permissions from the developers of each instrument were obtained. In addition, the Ethics Committee of the Middle East Technical University examined the study in terms of its purpose, significance, method and measures and confirmed that this study was ethical and suitable to conduct. After the approval of the committee, the researcher applied to other universities to obtain permission to collect data.

After all the permissions were granted and lists of international students were obtained, the questionnaires were put on a password protected website and emails were sent them to participate in the study. The students were also given an informed consent to be informed about the purpose, possible effects of the study, confidentiality and anonymity, and right to refrain from the study at any time. The contact information

and instructions about how to answer each questionnaire were also included in the informed consent. Nevertheless, the response rate was very low. Furthermore, the data collection procedure was spanned over more time than the expected (between April and June 2010) because of the difficulty to contact to the international students via emails.

### **3.5. Variables**

Criterion Variable:

College Adjustment: The total scores of as measured by Student Adaptation to College Questionnaire (SACQ).

Predictor Variables:

Gender: A categorical variable with categories of (0) male and (1) female. For hierarchical regression analysis, this variable was dummy coded as 0 for males and 1 for females.

Acculturative Stress: The total of scores as measured by the Acculturative Stress Scale for International Students (ASSIS).

Positive Coping Skills: The total of scores as measured by the Positive Coping Skills Subscale of Brief COPE.

Negative Coping Skills: The total of scores as measured by the Negative Coping Skills Subscale of Brief COPE.

Passive Coping Skills: The total of scores as measured by the Passive Coping Skills Subscale of Brief COPE.

Cultural Distance: The total of scores as measured by the Cultural Distance Scale.

Perceived Social Support: The total of scores as measured by the Multidimensional Scale of Perceived Social Support (MSPSS).

### **3.6. Data Analyses Procedures**

Various statistical analyses performed for the study and all the analyses were performed by using PASW Statistics 18 program. As a data cleaning procedure 95 of the cases were excluded from the data analysis because of the huge missing data. For the purpose of summarizing the demographic information of the participants in detail, descriptive statistics were performed.

In order to investigate the role of gender, acculturative stress, coping skills, cultural distance, and perceived social support in predicting college adjustment scores of international university students, hierarchical multiple regression analysis was conducted.

### **3.7. Limitations of the Study**

The main limitation of this study is convenient sampling. The data were collected from the voluntary international students who were available to the researcher. The target population was all the public and private university international students in Ankara, but the participants from each university in Ankara could not be reached. It was because of reaching international students was very difficult since they were enrolled in different universities, in different departments and different levels of education (freshmen, sophomore, master/doctorate, etc.). In some universities there was no international student office that could

help in reaching international students. This resulted in not being able to access high number of students and also number of students participated in the study from universities of METU, Ankara, Hacettepe, Gazi, and Bilkent was not equal or closer to each other. Therefore, the results of the study cannot be generalized to the international student population enrolled in the universities of Ankara.

Secondly, only international students that are permanent students in the universities of Ankara for the whole university life were included in the study. Therefore, the sample cannot represent exchange students.

Thirdly, data were collected from the participants through self-report measures. Hence, the scores obtained from the instruments related to college adjustment, acculturative stress, coping skills, cultural distance and social support only reflect the perceptions of the international students who participated in the study.

Fourthly, as Ward et al. (1998) stated, adjustment is a long process that takes time. Nevertheless, in this study data were collected at one point of time. Furthermore, this study only investigated the predictive role of gender, acculturative stress, coping skills, cultural distance, and social support in college adjustment scores of international students enrolled in the universities of Ankara. However, as stated in the literature, there might be other factors related to the adjustment process of international students such as age, education level, self-esteem, prior cross-cultural experiences, length of stay, physical health, and spirituality (Poyrazli et al., 2004; Rosenthal et al., 2008; Rosenthal et al., 2007; Yeh & Inose, 2003; Yusoff & Chelliah, 2010). Therefore, longitudinal studies that include other factors related to adjustment process may reveal more comprehensive information about the college adjustment of international students.

Lastly , this study is correlational in nature that means direct inferences cannot be made among the variables.

## CHAPTER IV

### RESULTS

This chapter consists of four main parts. In the first part, preliminary analyses performed are presented. In the second part descriptive statistics related to the major variables of this study are given. In the third part assumption checks for multiple regression analysis are explained. In the last part, results of multiple regression analysis are presented.

#### 4.1. Preliminary Analyses

Prior to the main statistical analyses, the data were checked in terms of possible mistakes when entering data and the scores that are not in the range of possible values for each variable (gender, college adjustment, acculturative stress, coping skills, cultural distance and social support) were inspected. The scores that were found to be out of the range values were corrected. Since there were no missing data missing value analysis was not needed.

Data were also checked for outliers and only the case of 17 was found as a possible outlier through the casewise diagnostics of regression analysis, having a standard residual of 3.27 (outside the  $\pm 3$  deviations). The case was examined in terms of its Mahalanobis distance, leverage value, and Cook's distance to see whether it was an influential case or not for the statistical analyses. The case has a Mahalanobis value of 14.75 (that was smaller than the high cutoff value 20.52 for 5 predictors according to Tabachnick & Fidell, 2007), leverage

value of .08 (smaller than .09 as recommended by Stevens (2002) with the formula of  $(3(k+1)/n)$ ,  $k$ = number of predictors,  $n$ = number of participants), and Cook's distance value of .08 (which was smaller than 1). Since the case was not found to be an influential one it was not excluded from the study.

#### 4.2. Descriptive Statistics for the Major Study Variables

Descriptive statistics results of criterion and predictor variables are presented in Table 4.1.

Table 4.1  
*Descriptive Statistics of the Major Study Variables (N=7)*

<i>Variables</i>	<i>Mean</i>	<i>SD</i>	<i>Possible Range</i>	<i>Actual Range</i>
<i>Criterion Variable</i>				
College Adjustment (SACQ)	244.14	68.00	54-486	87-445
<i>Predictor Variables</i>				
Acculturative Stress (ASSIS)	88.86	26.43	36-180	41-176
Positive Coping Skills* (Brief COPE)	32.91	6.36	4-48	12-46
Negative Coping Skills* (Brief COPE)	13.56	4.57	4-28	7-28
Passive Coping Skills* (Brief COPE)	14.83	3.87	4-24	6-24
Cultural Distance (Cultural Distance Scale)	36.74	8.59	12-60	12-56
Perceived Social Support (MSPSS)	61.43	14.03	12-84	16-84

*Note:* \* Subscales of Brief COPE

According to the descriptive statistics related to major study variables, the sample reported moderate levels of college adjustment ( $M = 244.14$ ,  $SD = 68.00$ ), moderate levels of acculturative stress ( $M = 88.86$ ,  $SD = 26.43$ ), high levels of using positive coping skills ( $M = 32.91$ ,  $SD = 6.36$ ), moderate levels of using negative coping skills ( $M = 13.56$ ,  $SD = 4.57$ ), moderate levels of using passive coping skills ( $M = 14.83$ ,  $SD = 3.87$ ), moderate levels of perceived cultural distance ( $M = 36.74$ ,  $SD = 8.59$ ), and high levels of perceived social support ( $M = 61.43$ ,  $SD = 14.06$ ) when compared with the actual score ranges of the variables.

### **4.3. Testing of Assumptions for Multiple Regression**

As stated by Field (2009) there are eight main assumptions for multiple regression.

- 1) variable types (all variables should be either categorical with two levels or quantitative)

All variables including dependent variable (college adjustment) and predictor variables [acculturative stress, coping skills (positive, negative, and passive), cultural distance, social support] were quantitative. Gender was dummy coded (0= males, 1=females) and then entered as a predictor variable. These indicated no violation of variable types assumption.

- 2) non-zero variance (all predictors should have some variation, not having variances of 0)

The outcome variable (SACQ scores) was unbounded with measures ranging from 87-445 (actual range 54-486). All predictor variables have non-zero variances as can be seen from the Table 4.1. All of these support non-zero variance of variables (Field, 2009).

- 3) no perfect multicollinearity (there should not be a perfect linear relationship between two or more predictors meaning they should not correlate too highly)

The correlation matrix of the study variables revealed no multicollinearity between the variables since all the variables have correlations smaller than  $r > .90$  as suggested in Tabachnick and Fidell (2007). (see also Table 4.2). Moreover, VIF and tolerance statistics were checked for collinearity and found no VIF values greater than 4 and tolerance values smaller than .20 indicating no collinearity problem (Tabachnick & Fidell, 2007).

- 4) homoscedasticity (residuals at each level of the predictor/s should have the same variance)

The scatter and partial regression plots of criterion variable against each predictor variable were checked for the assumption of homoscedasticity (Field, 2009) and in all scatterplots the residuals seemed to be distributed around zero randomly, indicating that the assumption was not violated.

- 5) independent errors (for any two observations the residuals should be uncorrelated or independent)

To test the assumption Durbin-Watson statistics was checked (Field, 2009). The value was found to be 2.21 indicating that assumption was not violated according to Tabachnick and Fidell (2007).

- 6) normally distributed errors (distribution of residuals should be normal)

To test the normality of the distribution of residuals, normal P-P plot and histogram of standardized residuals were checked (Field, 2009). Both the histogram and P-P plot indicated that the assumption of normal distribution of residuals was met.

- 7) independent observations (each outcome variable comes from a different independent source)

This assumption is assumed to be met since the researcher observed most of the participants completing the questionnaires independent from each other.

- 8) linearity (the relationship between the variables should be linear).

The partial plots of predictor variables on the criterion were checked to test the assumption (Field, 2009) and scatterplots revealed a linear relationship between the variables and criterion variable. The correlations between predictor variables and criterion variable also supported that the assumption was met (Table 4.2).

#### **4.4. Bivariate Correlation Matrices of the Major Study Variables**

The Table 4.2 presents the correlations among the scores of predictor variables and the criterion variable. As can be seen from the table, the college adaptation was significantly and negatively correlated with acculturative stress ( $r = -.19, p < .05$ ), cultural distance ( $r = -.16, p < .05$ ) and positively correlated with positive coping skills ( $r = .17, p < .05$ ). Moreover, significant correlations between acculturative stress and negative coping skills ( $r = .37$ ), acculturative stress and social support ( $r = -.35$ ), between positive coping skills and passive coping skills ( $r = -.35$ ), between positive coping skills and perceived social support ( $r = .13$ ), between negative and passive copings skills ( $r = .20$ ), between negative coping skills and perceived social support ( $r = -.37$ ), and between gender and cultural distance ( $r = -.17$ ) were found. These findings indicated that as the acculturative stress and cultural distance decreases adaptation to college increases and as the use of positive coping strategies increases again adaptation to college increases. The

correlation coefficients were found to be small in value indicating that there was no problem for collinearity.

Table 4.2.

*Correlation Matrix of the Major Study Variables*

<i>Variables</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
College Adjustment (SACQ)	1.00							
Acculturative Stress (ASSIS)	-.19*	1.00						
Positive Coping Skills (Brief COPE)	.17*	-.06	1.00					
Negative Coping Skills (Brief COPE)	-.07	.37*	-.07	1.00				
Passive Coping Skills (Brief COPE)	.00	-.04	-.35*	.20*	1.00			
Cultural Distance (Cultural Distance Scale)	-.16*	.02	.07	.07	.08	1.00		
Perceived Social Support (MSPSS)	.10	-.35*	.13*	-.37*	.09	-.01	1.00	
Gender (male as reference category)	.13	.09	-.06	.02	.10	.17*	-.08	1.00

Note: \*  $p < .05$

#### **4.5. Results of Multiple Regression**

To investigate the predictive value of gender, acculturative stress, coping skills (positive, negative, and passive), cultural distance, and social support of college adjustment, a hierarchical multiple regression analysis was performed. Predictors entered in the analysis in five blocks. In the first block gender was entered as a variable after dummy coding. The related literature demonstrated that adjustment is a challenging life issue, so it is expected that the sojourners to experience

acculturative stress. Therefore, acculturative stress can be related to college adjustment of international students and in the second block, acculturative stress scores of the participants was entered. When the term stress is in question, naturally coping skills come after it, because a person who experiences stress finds a way to deal with it either positively or negatively. Thus, coping skills seem to affect the college adjustment process by being related to acculturative stress and dealing with the difficulties of adjustment process. In the third block, coping skill variables (positive, negative, and passive) were entered. In the literature, in addition to acculturative stress and coping skills, cultural distance was also found to be an influential factor in the adjustment of sojourners and also perceived social support seemed to have decreasing the stress levels and facilitating the adjustment. Hence, in the fourth block, cultural distance and in the fifth and last block social support was entered. The results of the analysis were presented in the Table 4.3.

Table 4.3.

*Hierarchical Multiple Regression Analysis Predicting College Adjustment*

	<i>B</i>	<i>SEB</i>	$\beta$	<i>sr</i> <sup>2</sup>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	$\Delta F$
Model 1					.131	.017	.017	2.929
Gender	21.95	12.82	.13	.02				
Model 2					.223	.050	.032	5.693*
Gender	19.22	12.70	.12	.01				
Acculturative Stress	-.47	.20	-.18*	.03				
Model 3					.274	.075	.025	1.494
Gender	16.84	12.79	.10	.00				
Acculturative Stress	-.42	.2	-.16*	.02				
Positive Coping	1.81	.87	.17*	.02				
Negative Coping	-.24	1.23	-.02	.00				
Passive Coping	.63	1.45	.04	.00				
Model 4					.313	.098	.023	4.212*
Gender	12.18	12.86	.07	.00				
Acculturative Stress	-.45	.21	-.17	.03				
Positive Coping	1.92	.86	.18*	.03				
Negative Coping	-.06	1.22	.00	.00				
Passive Coping	.54	1.44	.03	.00				
Cultural Distance	-1.24	.60	-.16*	.02				
Model 5					.314	.098	.000	.064
Gender	11.90	12.94	.07	.00				
Acculturative Stress	-.44	.2	-.17*	.02				
Positive Coping	1.90	.87	.18*	.03				
Negative Coping	-.05	1.30	.00	.00				
Passive Coping	-.60	1.4	-.03	.00				
Cultural Distance	-1.24	.60	-.16*	.02				
Perceived Social Support	.10	.41	.02	.00				

Note: *N* = 170    *p* < .05

As presented in the Table 4.3., in the first model gender explained 1.7% of the variation in college adjustment scores ( $sr^2 = .02$ ) but the contribution was not statistically significant [ $R^2 = .017$ ,  $\Delta F(1, 168) =$

2.929]. In other words, gender was not found to be predicting college adjustment. In the second model, acculturative stress was added. In the second model  $R^2 = .050$ ,  $\Delta F (2, 167) = 5.693$ , acculturative stress significantly contributed to the model ( $sr^2 = .03$ ) and accounted for the 3% variation in college adjustment scores. In the third model, after controlling the effects of gender and acculturative stress, three variables related to coping skills; positive, negative and passive coping skills were entered into the model. After this model,  $R^2 = .075$ ,  $\Delta F (5, 164) = 1.494$ . In other words, addition of these variables did not result in significant increment in explained variances. However, positive coping ( $\beta = .17$ ) was found to be significant in predicting college adjustment of international students along with acculturative stress ( $\beta = -.16$ ). In the fourth model, after controlling the effects of gender, acculturative stress, and coping skills; cultural distance was entered and significantly contributed to the model [ $R^2 = .098$ ,  $\Delta F (6, 163) = 4.212$ ]. Cultural distance explained 2% variance in the college adjustment scores ( $sr^2 = .02$ ). In the last model, with the addition of social support,  $R^2 = .098$ ,  $\Delta F (7, 162) = 1.064$  were not significant. However, in the last model, acculturative stress ( $\beta = -.17$ ), positive coping skills ( $\beta = .18$ ), and cultural distance ( $\beta = -.16$ ) were found to be significant predictors of college adjustment.

In general, results demonstrated that students who have low acculturative stress, low perceived cultural distance and high use of positive coping skills were more adjusted to college. Furthermore, results of hierarchical regression analysis revealed that all predictor variables together explained 9.8% variance in college adjustment scores of international students.

## **CHAPTER V**

### **DISCUSSION**

The purpose of the present study was to investigate the role of gender, acculturative stress, coping skills, cultural distance, and perceived social support in predicting college adjustment of international university students in Ankara. The predictive role of these variables regarding college adjustment was examined with a sample of 170 international students. The results of the hierarchical multiple regression analysis indicated that acculturative stress, cultural distance and positive coping skills were significant predictors for college adjustment. In this chapter, the findings of this study are discussed in the first part. In the second part, implications of the study are summarized and suggestions for future research are given in the third part.

#### **5.1. Discussion Regarding the Predictors of College Adjustment of International Students.**

Gender, acculturative stress, coping skills, cultural distance, and social support were investigated as possible predictors of college adjustment of international students as supported in the literature that there is a relationship between these predictive variables and college adjustment (Bang et al., 2008; Bektaş, 2008; Berry et al., 1987; Ramsay et al., 2007; Rosenthal et al., 2007; Sümer, 2009; Virta et al., 2004; Yeh & Inose, 2003).

In order to examine the predictive power of gender, acculturative stress, coping skills, cultural distance and social support regarding college

adjustment, a hierarchical multiple regression was performed. Predictor variables were entered in five blocks; first gender, second acculturative stress, third coping skills (positive, negative, passive), fourth cultural distance, and fifth social support. The results of the study revealed that acculturative stress, positive coping skills, and cultural distance were predictors of college adjustment while gender, negative and passive coping skills, and social support were not predictors for college adjustment. College adjustment negatively correlated with acculturative stress and cultural distance whereas positively correlated with positive coping skills.

Aforementioned, gender difference was not found in terms of college adjustment of international students in this study. The related literature examining college adjustment and gender supported the results of this study indicating that there were no differences in terms of general adjustment of international students in relation to gender (Poyrazli et al., 2002). Jinyung (1999, as cited in Bektaş, 2004) did not find any significant gender difference in a study with 66 international students. Although previous travel experience, number of host friends and length of time was contributing to the culture shock of international students, gender was not found effective. Likewise, Misra, Crist, and Burant (2003) did not find any significant difference in academic and life stressors of international students in relation to gender. Similarly, Galloway and Jenkins (2005) carried out a study including two religiously affiliated private universities in the U.S. to examine the adjustment difficulties of international students. Despite language incompetency was found to be the biggest problem for students, no gender difference was detected. Moreover, Sumer et al. (2008) reported that no relation was found between gender and international students' depression and anxiety levels in the process of adjustment. Taken collectively, majority of the studies in the literature supporting that

gender difference does not exist in the adjustment process of international students; rather it appears as a unisex experience blended with several individual and personality factors. Still, it is worth mentioning that in this study out of 170 participants only 35 of them were female. In other words, females might not be well-represented in the study sample. Therefore, the result related to gender should be made with caution.

Although gender was not found to be a predictor of college adjustment in this study, acculturative stress was found to be a significant predictor of adjustment as supported by the literature (Lin, 2006; Ward & Rana-Deuba, 1999; Zhai, 2002). According to Berry (1980, as cited in Bektaş, 2004) adaptation is one phase of acculturation. Since acculturative stress can simply be defined as the stress resulting from acculturation process (Berry et al., 1987), it becomes clear that acculturative stress has an impact on the adaptation phase of acculturation. In addition, many researchers (Cemalcilar & Falbo, 2008; Dorozkhin & Mazitova, 2008) stated that entering a new culture is a difficult and challenging process that may result in the problems or difficulties in the adjustment process. The set of stress behaviors, regarding acculturative stress, such as lowered mental health, confusion, anxiety, depression, feelings of alienation and marginality, increased psychosomatic symptoms and identity confusion might be the possible problems affecting adjustment as stated in the literature (Berry et al., 1987).

Furthermore, there are many studies revealing that acculturative stress is a significant predictor for college adjustment. For example, Zhai (2002) in his qualitative study with 10 international students who enrolled in the U.S. universities found that when students perceived the differences in terms of educational system, this increased the students' stress levels and finally overwhelmed the students in the early

adjustment process. In another study with Chinese international students in the U.S (Lin, 2006), students reported a list of stressors that were prearrival uncertainty, anxiety, stress related to transportation to campus, postarrival problems such as housing, transportation, living expenses and other various stressors such as language barrier, separation from family, and political bias from host culture. All of them were reported as stress causing factors by the students and the stress, anxiety, and frustration that these students have experienced found to be resulting in decrease in the psychological health of students and so the adjustment process. Moreover, in two different studies, a relationship between the acculturative stress and social connections with the host society was reported. As the students had difficulty in constructing social contacts, their level of stress and difficulties increased and adaptation decreased (Hechanova-Alampay et al., 2002; Olivas & Li, 2006). Zhou et al. (2008) also reported a significant relationship between acculturative stress and adjustment through stating that, as the students experienced stress in cultural transitions they needed to develop coping skills and interactions with the host nationals to adjust better; then developing coping skills and social interactions in reaction to acculturative stress facilitated their psychological and sociocultural adjustment. Thus, the literature and the result of this study indicated that acculturative stress is related to college adjustment of international students.

In line with the literature, the present study also revealed that positive coping skills was one of the predictors of college adjustment of international students whereas negative and passive coping strategies were not. The literature stating that some positive coping strategies decrease acculturative stress and facilitate process of adaptation to a new culture (Berry et al., 1987; Sümer, 2009) supports the result of this study. In the current study, active coping, planning, positive reframing,

acceptance, self distraction, humor and self blame were accepted as positive coping strategies whereas denial, substance use, behavioral disengagement, and venting were accepted as negative coping skills. At first glance, self-blaming may be perceived as a negative coping strategy but after a close inspection of the single item that measures the self blame (i.e., "I've been criticizing myself") it seems possible to label this item as auto criticism which might be useful in seeing one's negative sides and trying to develop more positive attitudes. Further, seeking instrumental social support, seeking emotional social support and religion were accepted as passive coping strategies.

In the literature, many studies have pointed out positive coping skills of active coping, humor, and planning as predictors of college adjustment (Cross, 1995; Ward & Kennedy, 2001; Tuna, 2003). Cross (1995) conducted a study with international students in Canada and found that active coping and planning were associated with adjustment and lower levels of perceived stress. Ward and Kennedy (2001) in their study with 113 international citizens living in Singapore investigated a relationship between adjustment and coping styles of humor, planning, and active coping. These coping styles were found as the predictors of good psychological adjustment. In line with the findings of this study, Tuna (2003) also found that active coping was a predictor of general adjustment to college, academic adjustment, social adjustment, and goal commitment attachment to university (the subscales of SACQ, the college adaptation questionnaire that was used in this study as well). Moreover, positive reframing and humor were predictors of academic adjustment whereas self-distraction was predictor of personal-emotional adjustment. In another study conducted with university students in Turkey the researcher found that self-blaming was significantly and positively related to adjustment (Yalim, 2007).

When we come to negative and passive coping strategies as stated before, in this study they were not related to college adjustment. This result can be a contribution to the literature indicating that it is still unclear whether specific coping strategies predict adjustment related outcomes (Arthur, 1998; Pritchard et al., 2007). There might be some explanations to why the study results revealed that while positive coping skills predicting college adjustment whereas negative and passive coping skills did not. Since there is no available study in the literature explaining this situation, interpretations can be done using the relationship of coping skills with other variables and other results of the current study. For instance, international student sample of this study reported moderate levels of adjustment and acculturative stress, high levels of using positive coping skills, moderate levels of using passive and negative coping skills and perceiving high social support. Hence, it seems possible to speculate that international students might not experience great difficulties and problems related to their adjustment. Moreover, using positive coping strategies more than negative and passive ones might indicate that positive coping strategies possibly functioned well and contributed to college adjustment in higher amount than passive and negative skills and decreased their effect. If the international students were well adapted and felt a sense of belongingness to Turkish society, naturally the negative and passive coping skills would not have contribution or effect in adjustment even though they are used. Furthermore, since all the studies have been carried out either in European countries or in the U.S., the unique cultural-social structure of Turkish society such as being friendly and supportive (Şen, 2008) should be taken into account while interpreting the results of this study.

In addition to acculturative stress and positive coping skills, cultural distance was also found to be a predictor of college adjustment of

international students in the current study. Many studies conducted with international students supported the relationship between cultural distance and adjustment of international students (Furukawa, 1997; Suanet & Van de Vijver, 2009; Zhai, 2002). For instance, Ward and Kennedy (1999) examined 16 cross-sectional studies related to the sociocultural adjustment of sojourners and the results revealed that cultural and/or ethnic similarity was associated with better sociocultural adjustment. In other words, the more the cultural similarity, the better the sociocultural adjustment and vice versa. Consistent with these findings, Suanet and Van de Vijver (2009) reported that cultural distance was essential in understanding the experiences of international students and high perceived cultural distance by the students found to be associated with less psychological adjustment, more interactions with co-nationals and lower interactions with host nationals. They conducted the study in Russia and observed that students coming from Georgia, Uzbekistan, and Ukraine (the countries that have similar culture with Russia) reported the lowest perceived cultural distance, less stress and homesickness and more interactions with host-nationals. However, students coming from China and Iran (the countries that have different cultures when compared to Russian culture) reported high perceived cultural distance, more stress and homesickness and more social contacts with co-nationals compared to host nationals. It was obvious that the low cultural distance helped the students to adjust better to the host society. Furukawa (1997) found a similar result in the study conducted with Japanese exchange students in 23 different countries of the world. Greater the cultural distance between Japan and the foreign country, higher the psychological distress and lower the psychological adjustment. In addition to the quantitative studies a qualitative study carried out by Zhai (2002) revealed that international students had three important significant issues related to their process of adjustment that were adjustment to education system, cultural

differences, and language competency. The other studies have noted relationship between cultural distance and some other related variables to adjustment process. For example, as the cultural distance increased interaction with host society decreased (Chapdelaine & Alexitch, 2004), acculturative stress of students increased (Poyrazli et al., 2004), and the culturally appropriate skills decreased in number and more difficulty in learning new ones occurred (Ataca & Berry, 2002). It can be understood from the related literature, cultural distance is an important factor in understanding adjustment process of international students and this study support the relationship between cultural distance and college adjustment scores. According to the results of the current study international students in Ankara universities reported moderate levels of adjustment and also moderate levels of perceived cultural distance supporting the relationship between cultural distance and adjustment. Higher the cultural distance, lower the adjustment; lower the cultural distance, higher the adjustment; and as expected the cultural distance was in moderate levels as adjustment levels of international students.

As being the last independent variable of this study, social support was not found to be a significant predictor of college adjustment of international students. This study was contradictory with most of the studies reporting a positive relationship between social support and adjustment (Al-Sharideh & Goe, 1998; Poyrazli et al., 2004; Yang et al., 2005; Yusoff & Chelliah, 2010) Nevertheless, in one study, Ward and Kennedy (2001) also found that social support was unrelated to the adjustment. As more close to collectivist end (Hofstede, 1980), in the natural supportive environment of Turkish culture, social support might not have functioned as an extra source of support for international students. Moreover, the demographic information collected for this study revealed that 42.35% of the participants were coming from Turkic Republics which means that it might have been easier for them to feel

belongingness to Turkish culture since it was not very unknown to them. The high number of students coming from Turkic societies might affect the results of the study.

In summary, findings of the present study indicate that acculturative stress, positive coping skills, and cultural distance are predictors of college adjustment scores of international students enrolled in the universities of Ankara. However, gender, negative coping skills, passive coping skills, and perceived social support were not found to be contributing the college adjustment scores of international students. The combination of the predictor variables explained almost 10% of the total variance in college adjustment scores. This finding indicates that there may be other variables that can explain the remaining variance in college adjustment scores. In the literature, some other factors were found to be related to college adjustment such as age, education level, status, self-esteem, prior cross-cultural experiences, length of stay, physical health, spirituality (Poyrazli et al., 2004; Rosenthal et al., 2008; Rosenthal et al., 2007; Yeh & Inose, 2003; Yusoff & Chelliah, 2010). Hence, a more comprehensive perspective should be taken with regard to the factors associate with college adjustment of international students.

## **5.2. Implications of the Findings**

The findings of this study will be useful for mainly university counseling services, international student offices and university staff. In the literature, it was suggested that these three sources for international students should work in collaboration for facilitating international students' adjustment.

To begin with, international student offices are the first places for international students to ask for any kind of help and information (Bektaş, 2004). In addition, in the literature it was well documented that support from academic staff is significant in the adjustment process of international students (Bartram, 2007; Lin, 2006; Olivas & Li, 2006; Ramsay et al., 2007). Although international students found to be underutilizing counseling services in universities (Bektaş, 2008; Hechanova-Alampay et al., 2002; Poyrazli & Grahame, 2007; Zhai, 2002) it does not mean that they do not need help in the adjustment process. Bektaş (2004) stated that whether they asked or not international students still needed assistance.

Before discussing the counseling implications of the findings of the present study, it seems worth mentioning why international students underutilize counseling services. The literature revealed that some of the students even are not aware of the existence of counseling services (Zhai, 2002), some of them do not have enough knowledge about the counseling services (Olivas & Li, 2006; Spencer-Oatey & Xiong, 2006) and some of the students have the perception that counseling is only for students with mental health problems (Poyrazli & Grahame, 2007). Then, it seems important firstly to help the international students to be aware about the functions of counseling services. This can be provided through preparing advertisements or brochures about the counseling services and distributing them to international students (Poyrazli & Grahame, 2007) or counselors may be available in international student offices or in orientation programs (Bektaş, 2008).

After examining the related literature, it can be suggested that international student office, counseling centers and faculty members should be in contact to help international students. As the results of the current study revealed that acculturative stress, cultural distance, and

positive coping skills were important in college adjustment of international students; orientation programs, workshops or support groups can be designed to facilitate adjustment process of these students. For example, skill training groups to increase positive coping skills of international students can be prepared for international students as suggested by Olivas and Li (2006). According to the authors, in addition to examining the difficulties that international students experience, it is also useful to teach these students how to cope with the difficulties of adjustment process. Also, preparing open support groups in which international students can enter and exit any time and discuss issues regarding their adjustment (Poyrazli & Grahame, 2007) can be valuable. Such a support group can help students to relieve their negative emotions through expressing them and can help seeing in that they are not alone in having difficulty in adaptation process or they can also see other well adapted students, can learn what strategies they use in adaptation and learn from experiences of others. In addition to counseling groups, events that bring international and host students together can be prepared (Poyrazli et al., 2004; Poyrazli & Grahame, 2007; Rosenthal et al., 2007). These events can facilitate the adjustment process through reducing acculturative stress and increasing social support (Poyrazli et al., 2004) and developing more acceptance and tolerance between differences (Poyrazli & Grahame, 2007). Moreover, such activities will be most probably enjoying and entertaining and also useful increasing the sense of belongingness of international students in Turkish society.

One another important implication may be in counselors' developing multicultural competence. Firstly, to be able to understand the experience of international students counselors should be aware of the possible difficulties that international students face (Bektaş, 2008). At this point, results of this study can help university counselors to

understand the experiences and adjustment process of international university students. For example, acculturative stress and cultural distance were the significant predictors for college adjustment. Therefore, counselors can see that college adaptation is related to cultural adaptation and these international students may need help in learning about new culture and also need counselors to be aware of their cultural background. Here, counselors should question their multicultural competency and try to develop culture free interventions as well.

Peering up new comers with the adjusted international students before coming (Lin, 2006; Poyrazli & Grahame, 2007, Zhai, 2002) and preparing orientation programs can also be very helpful for international students as stated in the literature (Bektaş, 2004; Bektaş, 2008; Lin, 2006; Zhai, 2002). A well organized orientation program for international students can be very helpful in getting acquainted to their new environment and decreasing their level of anxieties. The orientation model with 4 modules with seminars and workshops that was suggested by Bektaş (2008) seems to be helpful. In the first module influence of culture in the adaptation process is examined in detail, the host culture is introduced, information about finding a place to stay, transportation, and health care is given. In the second module, experiences of cultural contact are examined and possible and expected problems/symptoms of culture shock are discussed. These two phases can be very helpful since the results of the current study also revealed that culture related variables (cultural distance and acculturative stress) were significant in adjustment process. In the third phase, phases or steps of adaptation are discussed and it is stated that adaptation is a process that takes time. In the last module, role of the individual in the adaptation process, how the individuals give meaning to their adjustment (evaluate and appraise them as source of difficulty

or opportunity) and appropriate strategies or skills in dealing with the experiences of adjustment are discussed. In this module, international students can be taught positive coping skills as they are significant in the adjustment.

### **5.3. Recommendations for Future Research**

Recommendations for future research can be listed as:

1. In this study, a total of 170 international students were reached to collect data which were low in number than the expected and students from different universities were not represented well in the present study. For further studies, it is recommended to reach more number of students from different universities to be able to make generalizations.
2. Longitudinal studies on college adjustment of international students may give broader results since adjustment is an ongoing process that spans over time. A study that observes and evaluates international students from the beginning of their education to the end can give a whole picture of adjustment process and possible effective factors.
3. Qualitative studies can be conducted as they can give more specific information about adjustment experiences of international students and can provide deeper understanding of their adjustment process.
4. Since positive coping skills found to be significant in this study, a positive skill training program for international students can be developed and its effects on international students' college adjustment can be examined.
5. As cultural distance and acculturative stress were also significant in this study, it might be worth conducting a research on acculturation or cultural adjustment of sojourners. Examining

how cultural adjustment can affect general adjustment or college adjustment of international students may be meaningful in understanding the role of culture in adjustment process.

6. Lastly, as there have been limited research studies related to international students in Ankara and in Turkey, more research needed to have clearer and more ideas about international students. To see the effect of some other factors on college adjustment (e.g., prior cross-cultural experiences, length of stay, physical health, self-esteem, etc.), this study can be replicated with different predictor variables in different universities.

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## APPENDICES

### APPENDIX A

#### Personal Data Sheet

Sex: \_\_\_\_\_ male \_\_\_\_\_ female

Age \_\_\_\_\_ years

Please write the name of the university you enrolled in Turkey:

\_\_\_\_\_

Please check below your academic classification:

\_\_\_\_\_ Freshman  
\_\_\_\_\_ Sophomore  
\_\_\_\_\_ Junior  
\_\_\_\_\_ Senior  
\_\_\_\_\_ Master/Doctoral

Please check below your major area of study in Turkey:

\_\_\_\_\_ Business and management  
\_\_\_\_\_ Computer and information services  
\_\_\_\_\_ Education  
\_\_\_\_\_ Engineering  
\_\_\_\_\_ Health Professions  
\_\_\_\_\_ Physical Sciences  
\_\_\_\_\_ Psychology  
\_\_\_\_\_ Social sciences  
\_\_\_\_\_ Miscellaneous

Please check the source/s of your financial support while studying in Turkey:

\_\_\_\_\_ Family \_\_\_\_\_ Native Government

\_\_\_\_\_ College/University \_\_\_\_\_ Turkish Government

\_\_\_\_\_ Other

Language/s

Native Country\_\_\_\_\_

Native Language\_\_\_\_\_

\_\_\_\_\_ I learned Turkish in Turkey.

\_\_\_\_\_ I learned Turkish as a second language in my native country.

Please rate your ability in Turkish:

	Lowest				Highest
Reading	1	2	3	4	5
Writing	1	2	3	4	5
Speaking	1	2	3	4	5

Please rate your ability in English:

	Lowest				Highest
Reading	1	2	3	4	5
Writing	1	2	3	4	5
Speaking	1	2	3	4	5

## **APPENDIX B**

### **SAMPLE ITEMS FROM STUDENT ADAPTATION TO COLLEGE QUESTIONNAIRE (SACQ)**

3. I have been keeping up to date on my academic work.
4. I am meeting as many people and making as many friends as I would like at college.
16. I am pleased now about my decision to attend this college in particular.
32. Lately I have been doubts regarding the value of a college education.
64. I am experiencing a lot of difficulty coping with the stress imposed upon me in college.

## **APPENDIX C**

### **SAMPLE ITEMS FROM ACCULTURATIVE STRESS SCALE FOR INTERNATIONAL STUDENTS (ASSIS)**

1. Homesickness for my country bothers me.
9. Others are biased toward me.
13. I feel overwhelmed that multiple pressures are placed upon me after my migration to this society.
22. I feel uncomfortable to adjust to new cultural values.
28. I don't feel a sense of belonging (community) here
33. People from some other ethnic groups show hatred toward me verbally
34. I feel guilty that I am living a different lifestyle here.

## **APPENDIX D**

### **SAMPLE ITEMS FROM BRIEF COPE**

1. I've been turning to work or other activities to take my mind off things.
7. I've been taking action to try to make the situation better.
8. I've been refusing to believe that it has happened.
15. I've been getting comfort and understanding from someone.
16. I've been giving up the attempt to cope.
27. I've been praying or meditating.

## **APPENDIX E**

### **SAMPLE ITEMS FROM CULTURAL DISTANCE SCALE**

1. Dressing
2. Communication
7. Language
9. Customs
10. Worldview
12. Living standards

## **APPENDIX F**

### **SAMPLE ITEMS FROM THE MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT (MSPSS)**

1. There is a special person who is around when I am in need.
2. There is a special person with whom I can share my joys and sorrows.
4. I get the emotional help and support I need from my family.
8. I can talk about my problems with my family.
9. I have friends with whom I can share my joys and sorrows.
12. I can talk about my problems with my friends.