RESILIENCE / VULNERABILITY FACTORS AS PREDICTORS OF TURKISH
UNIVERSITY STUDENTS' ADJUSTMENT TO COLLEGE


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# ABSTRACT

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It may be assumed that the various resources individuals have will be needed in coping with the adjustments required in college. Any deficits in individuals' psychological make-up or maladaptive coping strategies will block their adjustment to college. Within this idea of adjustment, adjustment to college and psychological well being were predicted by several variables named as personality, hardiness, and coping strategies under a stressful condition. Students who have completed their freshmen year were administered the scales related to the above variables and a series of path analyses were carried out. Results indicated that problem focused coping and helplessness/self blame had a mediator role between personality variables and psychological well being. Neuroticism was named as a vulnerability factor. Students with neuroticism as a personality characteristic were regarded as risk groups, who were likely to use helplessness/self blame coping. On the other hand, personality characteristics such as conscientiousness, openness/intellect, and hardiness were concluded to be a resilience factors together with problem focused coping.

Keywords: College adjustment, Resilience, Vulnerability

# ÖZ

## TÜRK ÜNİVERSİTE ÖĞRENCİLERİNİN UYUMLARINI ETKİLEYEN YATKINLIKLAR VE KORUYUCU FAKTÖRLER

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Üniversiteye uyum süreciyle başa çıkabilmek için çeşitli kaynaklara ihtiyaç olduğu düşünülebilir. Uygun olmayan başa çıkma yöntemlerinin kullanılması ya da kişinin psikolojik yapısındaki bozukluklar uyum sürecini olumsuz etkileyebilir. Uyumla ilgili bu bilgiler ışığında, bu çalışmada, üniversiteye uyum ve mutluluk kavramları kişilik, dayanıklılık ve başa çıkma becerileri ile yordanmıştır. Üniversitede ilk yılını tamamlamış öğrencilerden bu değişkenlerle ilgili ölçekleri doldurmaları istenmiştir ve bir dizi mediasyon analizi yapılmıştır. Mediasyon analizinin sonuçlarına göre çaresizlik ve problem odaklı başa çıkma becerilerinin kişilik özellikleri ve üniversiteye uyum arasındaki ilişkiyi etkilediği bulunmuştur. Nörotisizm uyum konusunda bir yatkınlık olarak adlandırılmıştır ve bu kişilik özelliğine sahip öğrenciler, başa çıkma yöntemi olarak çaresizliği benimsemeleri bakımından, risk grubunda kabul edilmiştir. Öte yandan sorumluluk, açıklık ve dayanıklılık kişilik özelliklerinin problem odaklı başa çıkma ile birlikte koruyucu faktörler olduğu tartışılmıştır

Anahtar Kelimeler: Üniversiteye uyum, Koruyucu faktörler, Yatkınlıklar

To My Baby

# ACKNOWLEDGEMENTS

**TABLE OF CONTENTS**

# LIST OF TABLES

TABLES

# LIST OF FIGURES

FIGURES

**CHAPTER I**

**INTRODUCTION**

An important goal for positive and health psychology more generally, is to help people increase their levels of happiness and adjustment (Seligman & Csikszentmihalyi, 2000). Adjustment refers to the process by which one changes or copes with the demands and challenges of everyday life (Creer, 1997). The college years can also be considered as a period with several challenges posed by everyday life, such as academic, social, and emotional areas which may lead to adjustment or maladjustment (Chickering & Reisser, 1993). It is now known that some students deal with these challenges in an appropriate and constructive ways whereas others are not able to adjust in a healthy manner (Tinto, 1987). Several cognitive and emotional processes are known to be involved in dealing with the challenges of adjustment. However, individuals tend to focus more on behavioral changes and coping strategies that are practical in adapting to the environment.

The present study is conducted in order to identify the personality factors and coping strategies that lead to better adjustment of college students. In this section, first the four constructs of college adjustment; namely academic adjustment, goal commitment/institutional adjustment, social adjustment, and personal emotional adjustment (Baker and Siryk 1984a) will be briefly described; and the positive and negative determinants of adjustment will be presented within the findings of the

1

literature. Following the literature review on college adjustment, several personality characteristics and coping factors related to adjustment will be laid out within the framework of Diathesis-Stress Model (Zubin & Spring, 1977). Finally the scope and aims of the current study will be presented.

**1.1 College Adjustment**

The important dimensions of students' adjustment to college have been studied over the last three decades. The factors thought to influence adjustment to college have been investigated and researchers mainly focused on demographic variables (e.g. Chataway & Berry, 1989; Hull, 1978), university entry qualifications and intellectual ability (e.g. Aspinwall & Taylor, 1992; Sternberg & Kaufman, 1998), personality variables such as shyness (Joiner, 1997), extraversion and neuroticism (Halamandaris & Power, 1999; Lu, 1990, 1994), and other vulnerability factors such as, positive and negative affect (Joiner, 1997) and social support (Halamandaris & Power, 1999).

In 1980s, Baker and Siryk (1984a) began a study on a comprehensive, multidimensional measure of university adjustment considering the many factors studied in the literature. They defined successful university adjustment as responding to academic demands, being involved in campus activities and being attached and committed to the college, being socially integrated with other students, faculty, and personnel in the university, and maintenance of one's own psychological and physical well-being. Baker and Siryk (1984a; 1986) thus proposed four different dimensions of university adjustment, namely, academic, goal commitment/institutional attachment, social, and personal/emotional. This complex nature of their research indicated that university adjustment is a multidimensional

phenomenon. In order to understand the concept of adjustment to college better, the dimensions of Baker and Siryk's adjustment model are defined in the following sections for better understanding the concept of college adjustment.

### 1.1.1 Academic Adjustment

Academic adjustment refers to the students' success in dealing with the various educational demands of the university experience. Baker and Siryk (1984a and 1984b) defined some contributing elements to academic adjustment, including academic performance and success, academic ability, academic motivation, academic purposes, and satisfaction with the academic environment. In addition to their research, relationship of academic adjustment with personality, social support and students' familial relationships have been investigated.

A number of studies investigated the relationship between academic adjustment and personality characteristics of the first-year students. Self concept, self-efficacy and optimism, locus of control, hardiness, and perfectionism are among the personality characteristics that have been studied in relation to adjustment to college. In general, studentswho did not experience problems with their self concept (Panori, Wong, Kennedy, & King, 1995); who had higher self efficacy and optimism (Chemers, Hu, & Garcia, 2001); adaptive perfectionism (Rice & Mirzadeh, 2000); and internal locus of control (Njus & Brockway, 1999) were found to well adjust to university academically. Hardiness, on the other hand, was found to be related with all other domains of adjustment as well as academic adjustment (Mathis & Lecci, 1999).

In addition to personality characteristics, several researchers have illustrated that social and environmental factors (e.g. residence, campus environment, family,

interactions with faculty and peer) do also play an important role in a student's academic adjustment (e.g., Blimling, 1999; Graff & Cooley, 1970; Pascarella & Terenzini, 1976; 1978; 1979b).

## 1.1.2 Goal Commitment/Institutional Attachment

Early research on adjustment indicated that academic performance does not account for even half of the variance in terms of academic adjustment (Pantages & Creedon, 1978). Baker and Siryk (1984b, 1989) stated that a general satisfaction with the academic environment was also necessary for the process of adjustment. This necessity was referred to as goal commitment/institutional attachment. Feelings about the institution, satisfaction with the institution, and the established bond between the student and the institution were some of the indicators of goal commitment / institutional attachment. Behavioral correlates of this dimension were indicated as having a career goal, a value for university education, and earning a degree at a particular institution (Baker & Siryk, 1999).

Smith and Baker (1987) compared the first-year university students who had made a decision about academic major and who had not. They indicated that decidedness regarding academic major is positively related to goal commitment/institutional attachment like academic adjustment. Similarly, Pascarella and Chapman (1983) found that commitment variables have a strong direct effect on staying in school, whereas demographic variables such as age, sex, or socioeconomic status tend to have a more indirect effect that interact with social and academic integration or institutional commitment to predict persistence.

While academic success and institutional attachment are parts of adjustment to college, psychosocial aspects such as interpersonal and social adjustment have

4

been considered as important for the overall adjustment process. In a parallel manner, some of the adjustment studies have tended to examine key outcome variables such as, well being and satisfaction related to social relations.

### 1.1.3 Social Adjustment

A healthy social adjustment to college requires interacting and forming relationships with peers, faculty, and staff. First-year college students generally separate from their previous social bonds and need to enter a new social environment and form new bonds, which might be very stressful. Social adjustment can be defined as the student's success in social activities, relationships with other persons on campus; ability to cope with social relocation, and being away from home and significant others; and satisfaction with the social aspects of the university environment (Baker & Siryk, 1999).

Lokitz and Sprandel (1976) designed a longitudinal study about the academic and social concerns of first-year students and found that in the first semester students were mostly concerned with their academic performance, but in the second semester these concerns were replaced with the social ones. It was suggested that if the new student could not establish a social support system, he/she may have difficulty in adjusting to college socially. This finding was supported by another study where the perception of insufficient social support was found to be predictive of maladjustment for both Caucasian and African American students (Mallinckrodt, 1988).

Several other studies examined the relationship between social support and overall adjustment in college students. In general, this body of research demonstrated that the perceived availability and quality of social support was positively related to college adjustment (Lokitz & Sprandel, 1976; Montgomary & Haemmerlie, 1993;

Pascarella & Terenzini, 1979a; 1979b; Terenzini et al., 1994).

Baker and Siryk (1983) studied the concept of social propensity in relation to college adjustment. Social propensity was defined as having an interest in various kinds of interactions with other persons, such as establishing relationships, participating in various social events, dealing with strangers, and so on. Social propensity was found to be significantly and positively correlated with social adjustment.

Terenzini et al. (1994) found that precollege friends at the same institution functioned as a bridge from one interpersonal environment to the next during the early weeks or months of college. Such earlier acquaintances provided important support during the transition. However, another research study about friend sickness revealed that students who were highly concerned about their precollege friendships had poorer adjustment to college (Paul, Brier, Er, Phan, Vereen, & Garrett, 2001). Support from family was also found to be important for young adults during the transition from high school to college. Lafreniere, Ledgerwood, and Docherty (1997) found greater college adjustment for the first-year students who had greater levels of support from family.

Quality of informal contact with faculty was defined as another form of support and was found to play a role in keeping enrolled in college (Pascarella, 1980; Terenzini & Wright 1987). Pascarella and Terenzini (1979b) found that students' informal contact with faculty beyond the classroom was important for the social integration of the students. The frequency and quality of student-faculty relationships, which were the predictors of persistence, were most important factors in social adjustment. It was also emphasized that integration into social environment

6

is a crucial element in commitment to a particular academic institution (Spady, 1970; Tinto, 1975).

The researchers have also investigated the relationship between personality characteristics and social adjustment of first-year students. Optimism, locus of control, and alienation were among the personality characteristics that were investigated in relation to social adjustment of first year students. In general students who had a sense of control over positive outcomes (i.e. responsibility for success) (Njus & Brockway, 1999), a greater degree of optimism (Brissette, Scheier, & Carver, 2002), and a greater degree of involvement in the social life of college (Baker & Siryk, 1980) were found to have better social adjustment to college.

### 1.1.4 Personal/Emotional Adjustment

Personal/Emotional adjustment is another dimension of college adjustment and it focuses on a student's level of psychological distress and somatic problems during his/her adjustment to college. Personal/emotional adjustment requires the students to have a positive sense of psychological and physiological well-being, such as feeling calm, stable, satisfied and secure, controlling intense emotions, dealing with daily stresses, and having less somatic complaints (Baker & Siryk, 1999). Behavioral correlates of personal/emotional adjustment could be listed as absence of global psychological distress, somatic distress, depression, anxiety, or low self esteem; a higher degree of psychological well being and experiencing fewer negative life events that are associated with personal/emotional adjustment (Baker & Siryk, 1999).

One of the predictors of personal /emotional adjustment was reported as familial relationship of first year students. Marital conflict between student's parents

(Holmbeck & Wandrei, 1993), poor attachment relations, and parenting style were shown to have a negative impact on a broad range of coping factors, including personal adjustment (Hoffman & Weiss, 1987), psychological health (Berman and Sperling, 1990; Kenny & Donaldson, 1991), self efficacy for social outcomes (Mallinckrodt, 1992; Strage, 2000), and overall adjustment (Wintre & Yaffe, 2000). Related to familial factors, one's gained independence from the family and separation were also found to be strongly related to personal/emotional adjustment (Rice, Cole, and Lapsley, 1990).

Other than familial conflicts and attachment issues, the studies on transition to college (Fisher & Hood, 1987; Bell & Bromnick 1998) focused on several personality variables. The research showed that adaptive perfectionism, self-esteem (Rice & Mirzadeh, 2000), hardiness (Mathis & Lecci, 1999), and optimism were found to be related to better psychological adjustment (Brissette, Scheier, & Carver, 2002). Effects of gender (Schultheiss & Blustein, 1994; Lafreniere, Ledgerwood, & Docherty, 1997) and overall stress (Hunsberger, Pratt, & Alisat, 2000) were also investigated in terms of overall adjustment and females were found to be more prone to the negative effects of stress and familial relationships.

The four dimensions of college adjustment have been presented and summarized up to this point by reviewing the research on several different measures of overall adjustment. In the next section indicators used to evaluate adjustment will be detailed and classified.

## 1.2 Indicators of Overall Adjustment

The present study aims to examine the variables related to adjustment. Firstly, we need to specify the indicators of adjustment for college students. Reviewed in the

previous section are the few of the indicators of adjustment which are psychological health and well-being. However, there is a body of research referring to quality of life and self esteem as additional indicators of overall adjustment. In this section, indicators of overall adjustment, i.e. psychological health, subjective well being, quality of life, and self esteem, will be defined and relevant research will be issued.

### 1.2.1 Psychological Health

Psychological health could be defined as the absence of global psychological distress (i.e. depression and anxiety) and presence of a high degree of well being. According to this definition of psychological health, Gerdes & Mallinckrodt (1994) listed the manifestations of personal or emotional problems for first year students including depression and anxiety as indicators of psychological health. Depression was reported to be the leading psychiatric disorder observed among college students (Sherer, 1985); whereas, anxiety caused by separation from the family and the novelty of college life has been consistently cited as predisposing students to drop out (Pappas & Loring, 1985). Studies on transition to college (Fisher & Hood, 1987; Bell & Bromnick 1998; Aspinwall & Taylor, 1992) showed that stressors such as being away from home resulted in unpleasant psychological effects such as depression and / or anxiety indicating poor psychological health for first year students.

During the 1970s and 1980s, research demonstrated that students with higher levels of separation-individuation from family and previous friends reported better psychological health in terms of fewer symptoms of loneliness or depression (Hoffman, 1984; Hoffman & Weiss, 1987; Levine, Green, & Millon, 1986; Rice, Cole, & Lapsley, 1990). Related to psychological health, Berman and Sperling

(1990) examined the effects of parental attachment on indicators of psychological distress and found that male students who had high levels of parental attachment at the beginning of the college had a tendency to show high levels of depressed mood at the end of the first semester. On the other hand, no relationship was found for female students.

In terms of personal or emotional adjustment, during the transition to college, students may also question their relationships, direction in life, self worth, their self-identity, and future goals (Chickering 1969, Chickering & Reisser, 1993). Such inner conflicts may result in personal crisis and psychological distress (Henton, Lamke, Murphy, & Haynes 1980). In terms of distress caused by the inner conflicts, anxiety (Pappas & Loring 1985) and depression (Sherer, 1985, Vrendenburg, O'brian, &Kramer 1988) has been consistently found to predispose students to poorer psychological health and maladjustment.

Homesickness was studied as another indicator of poor psychological health among college students. Fisher and Hood (1988) thought that transition to college had great adverse psychological effects, such as homesickness, on the college students. In this study, they examined the psychological reaction to the transition to college and found that 31% of the subjects reported experiencing homesickness without gender differences. They also examined the psychological response to the transition to college and the results showed that a stressful transition increased the level of psychological disturbance in all students; such as anxiety, depression and obsessive symptoms, fears, and somatic complaints all indicating poor psychological health.

It could be concluded that several stressors (i.e. separation from the family and previous friends; difficulty of forming new bonds with new peers and faculty; fcvelty of a new academic system) may result in high levels of psychological distress for first year college students. Psychological symptoms including depression, anxiety, obsessions, somatic complaints, and fears could be listed in order to define psychological distress and be accepted as indicators of psychological health for college students. Adjustment was previously defined by various factors one of which was lack of psychological distress. Psychological distress has been known for its negative effects on the academic and social performance of college students; hence, it could be a good indicator of college maladjustment.

## 1.2.2 Well-Being

Well-being is a concept which is to do with people's feelings about their everyday life activities. Such feelings may range from negative mental states through a more positive outlook that extends beyond the absence of dissatisfaction into a state which is identified as positive mental health. The operationalization of this concept has been more difficult than its description. Positive mental health is usually considered to include such features as favorable self evaluation, growth and learning from new experience. The components of well being are relatively easily assessed through self-reports of happiness. Psychological well being is thus a wide ranging concept which includes affective aspects of everyday experience. These affective components of psychological well being were extensively studied by Bradburn (1969) in adult populations. He argued that positive and negative affect were two uncorrelated aspects that is; a person's position on one of the two dimensions was not predictable from his position on the other. The two dimensions of well-being,

11

positive and negative affect were found to be related to quite different sets of variables.

Furthermore, the two dimensions were seen to be related to quite different sets of variables. Positive affect was associated with higher levels of social contact and more exposure to new experiences, whereas negative affect was uncorrelated with these variables. On the other hand, negative affect was found to be associated with various indices of anxiety, fears of a nervous breakdown and physical symptoms of ill health; but positive affect was not related to these variables.

Synonymous with well-being, happiness has also been conceptualized as containing both cognitive and affective aspects (Argyle, 1987). Argyle defined happiness as having three partly independent components: (1) the average level of satisfaction over a specific period; (2) the frequency and degree of positive affect; and (3) the relative absence of negative affect. The relationship of personality variables with happiness has been investigated. Personality variables such as extraversion and neuroticism were found to be related to affectivity (e.g. Argyle and Lu, 1990; Brebner et al. 1995; Costa and McCrae, 1980; Furnham and Brewin, 1990; Furnham and Cheng, 1997; 1999; Headey and Wearing, 1991) and self-esteem (e.g. Campbell et al. 1976; Furnham and Cheng, 2000; Rosenberg, 1965). Extraversion was found to predict positive affect and high self-esteem; whereas neuroticism was found to predict negative affect and low self-esteem.

Rice, Cole, and Lapsley (1990) examined the relationship between adolescent separation-individuation, family cohesion, and personal/emotional college adjustment. They found that the affective response to separation was strongly related to college adjustment. Students who reported positive feelings about separation also

12

reported being well adjusted to college life. The implication of this finding was that students who had negative affect associated with separation had more difficulty managing their adjustment to college.

Recent research on negative and positive affectivity investigated their relation with neuroticism and extraversion in general populations (Watson 1988, Watson et al., 1989; Watson & Pennebaker 1989; Watson & Kendall, 1989; Watson & Keltner, 1989). It was suggested that persons with high neuroticism tended to have high levels of negative affectivity, whereas persons with high extraversion or lower levels of neuroticism had higher levels of positive affectivity, which influenced psychosocial adaptation to everyday life.

Finally, a social cognitive model of well-being (Lent, 2004) was adapted to the context of academic adjustment and tested using a longitudinal design by Lent and his collegues (2007), in a sample of 252 college students. They completed measures of academic self-efficacy, environmental support, goal progress, and adjustment along with global measures of positive affect. Self-efficacy and positive affect were found to be reciprocally related to one another. The analyses indicated that the higher the self-efficacy, the higher was the positive affect.

As a conclusion, several stressors like separation individuation and predisposing factors, such as personality variables can be effective on well-being of college students. Since adjustment to college was partly defined as a state of high positive affectivity, well being needs to be considered as another marker of overall college adjustment.

### 1.2.3 Quality of Life

In the last few decades, quality of life has become an important outcome measure in social scientific studies. While a comprehensive, objective approach to quality of life was provided by Andrews and Withey (1976), later research has varied considerably in its definition, scope, measurement, and reporting (Gill & Feinstein, 1994). Quality of life refers to the satisfaction with one's overall life or components of it which could be related to social and emotional issues, physical circumstances or health.

The literature on djustment includes research examining factors related to quality of life, one of which is personality. Personality has been addressed for being influential on the quality of life. Wroschl and Scherier (2002) argued that personality affects quality of life by influencing how people approach and react to critical life situations and addressed the role played by optimism and goal adjustment. According to their research, it was concluded that individual differences in people's abilities to adjust to goals that were not attainable were associated with a good quality of life.

Scheier, Matthews, and Owens (1989) conducted a study on optimism as a personality variable and found that persons who had high optimism reported a more positive overall quality of life. Based on a sample of college students, Harju and Bolen (1998) found that high optimism was clearly the healthiest level of optimism compared to midlevel and low optimism. High optimists had the highest overall quality of life (satisfaction) and use the most action and reframing oriented coping styles. Mid-level optimists reported quality of life satisfaction but use more alcohol as a coping style than high optimists. Low optimists were dissatisfied with their overall quality of life and use more alcohol and disengagement for coping. Women

reported greater quality of life and coped by using emotion, venting, and religion. Interestingly, men use more acceptance and humor for coping.

On the other hand, research indicated a relationship between adjustment and quality of life. Lent (2007) studied the effects of academic self efficacy on overall life satisfaction with Portuguese college students. He found that academic self efficacy was related to academic adjustment, and that students who accomplished academic adjustment had higher levels of overall life satisfaction.

Moreover, on the physical health side of quality of life; there seems to be a connection between stress and poor health outcomes or disease (Damush, Hays, & DiMatto, 1997; Selye, 1976). Physical symptoms regarded as the effect of stress on college students included headaches, colds, and flu (Zaleski et al., 1998). If stress was not dealt with effectively, feelings of nervousness and loneliness, sleeplessness, excessive worrying (Wright, 1967), and negative health behaviors including suicide appeared (Guyton et al., 1989; Teuting, Koslow, & Hirschfield, 1981).

According to the research carried out on quality of life within the adjustment literature, several physical and psychological factors, such as optimism, goal adjustment, self efficacy, and stress influenced the perception of life quality which was reported to be a good predictor of overall adjustment. However, quality of life is a novel variable for adjustment research and the novelty of this concept should be further investigated as a solid marker of overall adjustment.

### 1.2.4  Self Esteem

Self-esteem is referred to as an important aspect of one's social and cognitive development (Berndt, 2002; Wigfield, Battle, Keller, & Eccles, 2002). It is often considered as self-evaluation, or an evaluation of one's self-worth and self-

acceptance. Global self-esteem is defined as a "positive or negative attitude toward a particular object, namely, the self" (Rosenberg, 1965). It was found that individuals low in self-esteem isolate themselves from others more often, tend to be more self-conscious and are also more likely to be depressed than those with high self-esteem which could be interpreted as self esteem being influential on social and psychological factors and adjustment in a positive direction.

Many studies have been conducted for the effects of self-esteem on different outcomes during the teenage years including academic performance and overall adjustment. Studies regarding the influence of self esteem on academic performance have yielded conflicting results. Hansford and Hattie (1982) reviewed 128 cross sectional studies where self-esteem was reported to be positively associated with academic outcomes. In contrast, several longitudinal studies had quite different conclusions. Rather than positive self-esteem leading to better grades, some studies suggested that good grades lead to higher levels of self-esteem (e.g., Ross & Broh, 2000; Schmidt & Padilla, 2003). In one longitudinal study Ross and Broh (2000) found that, once locus of control had been controlled for, self-esteem did not predict academic achievement after a two year follow up. Although Schmidt and Padilla (2003) found cross-sectional associations between grades and self esteem, they found no longitudinal effects of self-esteem on later grades. Hair and Graziano (2003) measured several components of self-esteem and found that only behavioral conduct predicted grades longitudinally.

However; there appears to be less conflict regarding the impact of self-esteem on overall adjustment and emotional states. Low self-esteem was found to be significantly related to poor psychological health (Pelkonen, 2003) and well being

(Furnham & Cheng, 2000). A number of longitudinal studies have been conducted into the effects of self-esteem on psychological adjustment, but these have focused primarily on depression rather than on other traits such as happiness. In a study with a 12 month follow up, Robinson, Garber, and Hilsman (1995) found that low self-esteem predicted poor psychological health and adjustment. Similar results with respect to depression were noted by Ralph and Mineka (1998) who also observed that individuals with low self-esteem were less well prepared to accommodate good news compared to those with higher self-esteem. As Baumeister et al. (2003) have pointed out, as well as the evidence that low self-esteem was prospectively related to emotional states, low self-esteem also had the ability to ''poison the good times''.

High self-esteem has been reported to be one of the strongest predictors of well-being and adjustment (e.g. Campbell, 1981; Wilson, 1967). Diener's (1984) review of well-being includes 11 studies in which a positive association between self-esteem and well-being was found. Campbell et al. (1976) compared satisfaction in different domains with overall life satisfaction and found that among all the variables, the highest correlation with life satisfaction was satisfaction with the self. Using regression and path analysis, Furnham and Cheng (2000) found self-esteem to be the most dominant and powerful predictor of young people's self-reported happiness.

In most Western cultures, young men and women are expected to leave their parents' residence following high school graduation (Goldscheider & Davanzo, 1986) with the help of self-esteem and to cope effectively with being apart from their parents and with the demands of the new environment. Peer and faculty interaction could be one demand of this sort and is important in relation to self-esteem and

17

confidence. Strage (2000) examined the role of students' rapport with instructors and peers as predictors of college adjustment. She indicated that high ratings of positive rapport with teachers were associated with college adjustment and high ratings of positive rapport with peers were associated with high levels of confidence.

All these studies in the literature indicate that self esteem seems to be a controversial concept for adjustment. The relationship between self esteem and adjustment outcome has been investigated within research (e.g. social contact with others, psychological health); however self-esteem has not been considered as a predictor of overall adjustment. In the present study, self-esteem which has been found to be strongly related with adjustment outcome will be used as a marker for overall adjustment.

## 1.3 Diathesis – Stress Model

In this section, Diathesis – Stress Model (Zubin & Spring, 1977), which will be used for examining adjustment in the present study, will be presented. First the explanations on the development of the theory and the supporting perspectives will be displayed. Following that, vulnerability and resiliences for college students (personality and coping styles) and major stressors of college life will be reviewed separately.

Diathesis – stress model (Zubin & Spring, 1977) is a psychological theory that explains behavior as both a result of biological and genetic factors (nature), and life experiences (nurture). The model assumes that a disposition towards a certain disorder may result from a combination of one's genetics, early learning and stressful events encountered. The theory was first formulated to describe the pronunciation of mental disorders, like schizophrenia, that are produced by the interaction of a

vulnerable hereditary predisposition, with precipitating events in the environment (Zubin & Spring, 1977).

In the Diathesis – Stress Model, a biological or genetic vulnerability or predisposition (diathesis) interacts with the environment and life events (stressors) to trigger behaviors or psychological disorders. The greater the underlying vulnerability, the less stress is needed to trigger the behavior/disorder. Conversely, where there is a smaller genetic contribution greater life stress is required to produce the particular result. Even so, someone with a diathesis towards a disorder does not necessarily mean they will ever develop the disorder. Both the diathesis and the stress are required for this to happen.

The diathesis-stress model has been reformulated in the last 20 years as the Stress-Vulnerability-Protective Factors Model by Liberman and Kuchnel (1988) in the field of psychiatric rehabilitation. The model has had profound benefits for people on how to handle this stress, and therefore reduce the expression of the diathesis, by developing resiliencies. Resiliencies include problem solving and basic communication skills; and the potential for developing a support system for oneself. The stress-vulnerability-protective factors help create a sophisticated personal profile of what happens when the person is doing poorly (the diathesis), what hurts (the stressors), and what helps (the resiliencies).

Coping has been considered as a somewhat resilience in the stress and coping literature. The roots of cognitive theory of stress and coping are based on the transactional perspective, which considers the person and the environment in a dynamic, mutually reciprocal, bidirectional relationship. Stress is conceptualized as a relationship between the person and the environment that is appraised by the person

as taxing or exceeding his/her resources and as risking well-being. The transactional perspective proposed two processes, namely, cognitive appraisal and coping, which are considered as the critical mediators of stressful person-environment relationships and of their immediate outcomes (Folkman, Lazarus, Gruen, & DeLongis, 1986).

The present study proposes that the personality factors and coping strategies play a role on students' adjustment or maladjustment to college either as vulnerability or resilience. Thus within the diathesis – stress model, the relationship between personality factors and coping strategies that are used by the first year students will be examined under the stressful conditions of freshmen year.

### 1.3.1 Vulnerability and Resilience for Adjustment (Diathesis)

College adjustment literature emphasizes the importance of personality characteristics and resources for coping on healthy adjustment. In the next two sections the concepts of personality and coping will be presented in terms of the Diathesis – Stress Model's vulnerability and resilience.

### 1.3.1.1 Personality

According to the diathesis – stress paradigm, personality is one of the important resources that can be effective on behavior together with the role of stress. In this section the role of personality characteristics on academic, institutional, social, and personal/emotional adjustment will be presented as both vulnerability and resilience. In relation to adjustment to college life, personality variables have received relatively little attention and it is during the last decade that the focus seems to be shifting in this direction. Initial studies focused on the authoritarian personality (Adorno et al., 1950; Basu & Ames, 1970; Chang, 1973) while later studies tried to identify possible vulnerability factors predictive of poor adjustment (Davidson et al.,

1950; Bean & Metzner, 1985; Fisher et al., 1985; Fisher & Hood, 1987; Chataway & Berry, 1989; Lu, 1990; 1994; Riggio et al., 1993).

Lu (1990a) explored the greater participation of extravert college students in social activities. It was found that extraverts enjoyed and participated more in social activities, that happiness was correlated with extraversion and enjoyment and participation in social activities. About half of the greater happiness of extraverts was explained by their greater participation in social activities. In a similar study Lu (1990b) has given sixty-three subjects measures of happiness, extraversion, neuroticism, social competence, and cooperativeness at time one, and happiness four months later. It was found that assertiveness predicted happiness in time two. Low neuroticism predicted high happiness by the mediating effect of assertiveness.

A number of studies have been conducted to investigate the relationship between academic adjustment and specific personality characteristics of the first-year students. Among the personality characteristics, self concept (Panori, Wong, Kennedy, & King, 1995), self-efficacy, optimism (Chemers, Hu, & Garcia, 2001), locus of control (Njus & Brockway, 1999), hardiness (Mathis & Lecci, 1999), and perfectionism (Rice & Mirzadeh, 2000) have been extensively studied.

Adaptive perfectionism, optimism, and hardiness (Mathis & Lecci, 1999) were found to be related to better psychological adjustment (Brissette, Scheier, & Carver, 2002). The role of optimism in social network development and psychological adjustment was examined by Brissette, Scheier, & Carver (2002). Their study revealed that greater optimism was related to greater increases in social support during the first semester of college. In addition, it was reported that optimists had more friendship networks after the first 2 weeks of college. Mathis & Lecci,

21

(1999) studied 63 first-year students for the effects of hardiness on adjustment. The results showed that higher hardiness was associated with better adjustment across all domains indicating that hardiness is an effective longitudinal predictor of college adjustment.

Kobasa (1979), examining high stress individuals with a low incidence of illness, coined the term ''cognitive hardiness'' to describe the adaptive behaviours of these resilient individuals. For Kobasa, cognitively hardy individuals (1) believe that they can control or influence events. (2) have a commitment to activities and their interpersonal relationships and to self, in that they recognize their own distinctive values, goals and priorities in life, and, (3) view change as a challenge rather than as a threat. In the latter regard, they are predisposed to be cognitively flexible. Kobasa (1979) and Kobasa and Puccetti (1983) described cognitive hardiness as a personality variable which has both cognitive and behavioural aspects. It was found to mitigate the negative effects of stress in relation to illness (Kobasa, 1979) and depression (Nowack, 1989). In a study of older people (65–80 years), Sharpley and Yardley (1999) reported that cognitive hardiness is a strong predictor of depression-happiness, with individuals high in cognitive hardiness scoring higher on the happiness end of the continuum.

Njus and Brockway (1999) conducted research on how academic adjustment of first year students was related to their perceptions of locus of control (LOC). Results showed that internal LOC over positive outcomes (responsibility for success) was associated with better academic adjustment than internal LOC over negative outcomes (responsibility for failure).

Rice and Mirzadeh (2000) examined the association of the types of perfectionism (adaptive and maladaptive) with academic integration, which is the indicator of academic adjustment. Adaptive perfectionism was defined as setting high self-standards, order, and organization but not at the expense of self-esteem. On the other hand, maladaptive perfectionists set high standards that never seem achievable and they are excessively concerned with making mistakes. Results indicated that maladaptive perfectionists were less academically integrated and more depressed than adaptive perfectionists. The results indicated that adaptive perfectionism played a role in facilitating the academic adjustment and integration of college students.

As being related to personality factors, alienation during the first-year of the college was also studied by Baker and Siryk (1980). They described alienation as a lesser degree of compatibility in the person-environment relationship. They found that the more alienated the student, the less likely he/she were to be involved with campus organizations and activities. A lesser degree of involvement with the social life of the college was interpreted as less effective adjustment. These studies indicate that different personality characteristics affect social adjustment of the students either positively or negatively.

One of the most potentially promising factors that should be taken into consideration is the concepts of neuroticism and extraversion (Eysenck, 1969; Eysenck & Eysenck, 1974). To date only a few studies have investigated the role of extraversion (Hojat, 1971; Zeldow et al., 1974; Searle & Ward, 1989; Lu, 1989; 1983; Ward & Searle, 1980) and even fewer the role of neuroticism (Amelang, 1965; Hojat, 1971; Zeldow et al., 1974; Saklofske & Yackulic 1978; Hojat et al., 1981;

23

Riggio et al., 1982) in relation to students' psychosocial adjustment to college life. Research in many different areas of psychology seems to suggest the possibility that neuroticism and extraversion may underlie many relationships that have been found between perceived social support, general well being and happiness (Costa and McCrae, 1974) on overall satisfaction with current life and adjustment as well as a number of significant gender differences (Borys and Perlman, 1974).

Neuroticism in particular had strong relations with well-being; this again suggests that well-being will tend to be stable over the lifespan. A number of recent studies (Holmbeck & Wandrei, 1982; Lu, 1983; Joiner, 1986) emphasized the need to investigate in more depth the role of major personality variables to successful psychosocial adjustment and general well being. The personality variables: vulnerability factors which have been of research interest recently include shyness (Joiner, 1986), negative and positive affect (Joiner 1986) and extraversion and neuroticism (Hussain & Kumari 1984; Jou & Fukada, 1985).

Achievement motivation is another personality variable which although appearing relevant to overall psychosocial and academic adjustment to college, has not been studied adequately. Only one study investigated the relationship between achievement motivation and personality, in which Doi (1974) using a Japanese student sample, reached the conclusion that the relationship between achievement motivation and personality may depend on cultural factors. Few studies seem to exist on the construction of measures of achievement motivation or on gender related differences and achievement motivation (Modick, 1966; Pilai, 1972).

Gender was focused on as a personality variable by Schultheiss and Blustein (1994) and sex differences were found regarding the effects of parental attachment

on overall adjustment. While there was no significant relationship between parental attachment and adjustment for females, for males' parental attachment were significantly related to overall adjustment. Gender differences in students' reaction to stress related to parental relations were also investigated in another study. Lafreniere, Ledgerwood, and Docherty (1997) showed that during the transition to college, male students living with their parents reported the least amount of stress. On the other hand, female students living with their parents were found to be vulnerable to stress.

As a conclusion, it could be stated that research on personality within the adjustment literature, neuroticism, alienation, maladaptive perfectionism and external locus of control have been shown to be vulnerability factors under the stressful conditions of first year of college. On the other hand, extraversion, self efficacy, higher levels of motivation, hardiness, optimism, adaptive perfectionism, and internal locus of control have been treated as resiliencies. Research conducted on the Big Five personality factors mainly focused on extraversion and neuroticism, and it could be stated that there is a lack of information on other sub types of personality regarding college adjustment.

**1.3.1.2 Coping Styles**

During the freshmen year of college, personal, emotional, social, and intellectual skills of students are tested through several challenges such as meeting the academic demands of college, entering a new social environments and need for forming novel bonds, and going through personal changes. In order to go through these tasks or challenges, students need different patterns of coping behavior.

Coping behaviors are conscious strategies, "cognitive and behavioral efforts", used by the individuals when confronted with particular stressful events. Endler and

Parker (1989b, 1989c) discussed a very significant distinction in the coping literature between emotion focused and problem focused coping strategies and most of the coping scales developed recently do include these broad two dimensions (Billings & Moos, 1973; Folkman & Lazarus, 1974; 1975). Problem oriented coping (coping with the problem that is causing the distress) might include activities such as finding out more information about the problems, or making up a list of priorities for tackling the problem. On the other hand, emotion oriented coping (focused on regulating emotion) might include activities like trying not to feel angry or depressed or daydreaming about the future.

More generally, Endler and Parker (1989) proposed that problem focused coping refers to task orientation; whereas emotion focused coping refers to person orientation. Although college adjustment and coping have been separately studied and well documented in the literature, there are limited numbers of studies, which examine the effects of coping strategies on college adjustment.

Research recognizes two major functions of coping: regulating stressful emotions, and altering the person–environment relation causing the distress (Folkman, Lazarus, Dunkel-Schetter, Delongis, & Gruen, 1986). Problem-focused coping includes cognitive and behavioral attempts to modify or eliminate the stressful situation. In contrast, emotion-focused coping involves attempts to regulate emotional responses elicited by the situation (Folkman & Lazarus, 1980). Researchers have suggested that emotion-focused coping is less effective and more likely to be associated with psychological distress than is problem-focused coping (Billings & Moos, 1981, 1984; Pearlin & Schooler, 1978; Sigmon, Stanton, & Snyder, 1995).

Problem solving is a general coping strategy, which facilitates and maintains general competence and adaptation. Problem-solving appraisals have been linked to indices of psychological distress including depression and anxiety (Elliott, Herrick, MacNair, & Harkins 1994; Elliott, Sherwin, Harkins, & Marmarosh, 1995; Heppner, Hibel, Neal, Weinstein, & Rabinowitz, 1982; Nezu, 1985, 1986), stress (Baker & Williams, 2001; Nezu & Perri, 1989; Nezu & Ronan, 1985, 1988), and adjustment (Heppner & Anderson, 1985), as well as behavioral health outcomes such as, health complaints and symptoms (Elliott, 1992; Elliott & Marmarosh, 1994).

Although existing research suggests that self-appraised social problem-solving ability may be an important tool in accounting for individual differences in adaptational outcomes in tertiary educational settings, in the majority of these studies, the variance accounted for by problem-solving was rather modest. It may be, as suggested by D'Zurilla and Sheedy (1991), that the time-frame over which these studies were conducted was too short (i.e. 6 weeks to 3 months) to allow students sufficient time to cope successfully with initial adjustment problems over the course of their first year and the transition into their second year of college.

Research with students appears to suggest that coping strategies and styles as expressed in specific stressful situations are related to both overall adjustment and to health outcomes (Chang, 1985). Jorgensen and Dusek (1990) examined the relationship between psychosocial adjustment and coping strategies categorized as more salutary and less salutary coping strategies among first-year college students. Results revealed that salutary coping efforts (e.g., developing a plan of action, utilizing social resources for emotional support and discussion of problems, and

engaging in physical, cognitive, and scholastic activities) were higher among optimally adjusted students than among those less optimally adjusted students.

The study of coping strategies in order to deal with unpleasant emotions and situations such as loneliness has been investigated by Saklofske and Yackulic (1978). Investigation of the coping strategies used by students in order to deal with homesickness; as well as with examination stress has not been clear due to research limitations as reported by the researchers. However, Bell and Bromnick (1998) stated that homesickness was a ruminative activity and prevented the assimilation of new experiences. However, they found that as levels of self-disclosure of the students increased, homesickness decreased during the first semester indicating the importance of taking action for coping.

Zea, Jarama, and Bianchi (1995) examined the relationships of social support, active coping, and college adjustment in a sample of 357 college students. The results revealed that active coping played an important role in adjustment to college. They suggested that both active coping and social support might produce desirable outcomes in the academic, social, emotional, and institutional aspects of college adjustment.

Tao, Dong, Pratt, Hunsberger, and Pancer (2000) investigated the interrelationships of social support, coping strategies, and college adjustment with a sample of 390 first-year students. The researchers found that social support was more closely related to social adjustment, and feelings of attachment to college. Overall social support at the beginning of the first semester was associated with adjustment at the end of the first semester both directly and indirectly through the patterns of less negative coping (acceptance, venting, denial, behavior and mental, alcohol-drug, and

disengagement) and more positive coping (active coping, planning, suppression of competing activities, seeking emotional and instrumental social support, and positive reinterpretation).

Leong, Bonz, and Zachar (1997) tested the hypothesis of whether or not the students' differential coping styles could impact their adjustment to college. The findings indicated that while active coping was positively related to academic and personal/emotional adjustment for first-year students, suppression of competing activities was negatively related with adjustment. It was also found that focus on and venting of emotions was negatively related to personal/emotional adjustment. They also found that social adjustment and goal commitment/institutional attachment were not related to any coping strategies.

As a conclusion it could be stated that research on coping styles of college students distinguished salutary coping, seeking social support, and problem focused coping from distancing oneself and emotion focused coping. More salutary and problem focused coping styles were referred to as being more adaptive and protective against stress; whereas distancing oneself from the stressful situations and emotion focused coping have been reported to be maladaptive for overall college adjustment.

### 1.3.2 Major stressors for college students (Stress)

Examinations, grade competition, large amounts of content to learn in a short time frame (Abouserie, 1994), and excessive homework or unclear assignments (Kohn & Frazer, 1986) are all common sources of academic stress reported by students. In addition to these academic sources of stress, first-year students often experience stress in adjusting to the social life of college, forming a support network,

and managing new social freedoms (Gerdes & Mallinckrodt, 1994). Indeed, Gerdes and Mallinckrodt (1994) found that social and emotional adjustment difficulties among first-year college students were strong predictors of attrition.

Many of the changes that late adolescents experience are related to the natural process of socialization and maturation, but some first-year college students are ill prepared to effectively deal with the social, personal, and academic demands of college life and thus may be more susceptible to psychological distress including anxiety, depression, and behavior disturbances (American Psychiatric Association, 2000; Bernier et al., 2005; Soucy & Larose, 2000).

College students were asked to provide their important domains of stress and the following factors were cited: feeling in control over life, satisfaction with school, perceived well-being, and social belonging (Keith & Schalock, 1994). For female students, the impact of teachers, social life, finances, housing, personal safety, and life stress were important domains (Berry, 1995). Overall stress was yet another broad factor effecting adjustment. Pancer, Hunsberger, Pratt, and Alisat (2000) reported that the students experiencing low levels of stress were relatively well-adjusted to the college; however, the adjustment of students experiencing higher levels of stress was affected by the complexity of their expectations of college. Students with complex expectations (thinking of an issue in a multidimensional fashion) displayed higher levels of adjustment than did students with simpler or one-dimensional ones. Students with complex expectations had effective coping with the novelty of college, thus, had more information about classes, faculty, social life, and life in general at college, and were more satisfied with the amount of information they had than were students with simpler expectations.

30

Levitz and Noel (1989) found that the first 2 to 6 weeks of college were the most critical period for first year students, significantly influencing whether a student would be successful in adjusting to college life, drop out, or transfer to another college. Consistent with this time frame, Cutrona (1982) found that most first-year college students were lonely during the fall but that they had formed new social networks by the end of their first year at college. First-year students who perceived less family support than do those who reported higher levels of family support reported more physical symptoms (Zaleski, Levey-Thors, & Schiaffino, 1998). Stress regarding familial issues contributes to emotional symptoms among college students. Common symptoms include depression, anxiety, and inability to cope (Grace, 1997).

A body of studies on the importance of parental separation and individuation were carried out. Separation and individuation were reported as critical developmental tasks faced by late adolescents which could impact their academic, social, and emotional adjustment (Gerdes & Mallinckrodt, 1994) to college (Andreasen & Hoenk, 1982). Supportingly, Fisher & Hood (1987) found sources of stress unique to residential students (i.e. living apart from their parents) as compared with home-based students (i.e. living with their parents) and vice versa. Residents reported problems because of a new social life, new domestic routines and lack of privacy; whereas home-based students felt there was restriction of freedom caused by their parents.

Berman and Sperling (1990) examined the effects of parental attachment on emotional distress. They found that male students who had high levels of parental attachment at the beginning of the college had a tendency to show high levels of

31

depressed mood at the end of the first semester. On the other hand, no relationship was found for female students. Lafreniere, Ledgerwood, and Docherty (1997) revealed that during the transition to college, male students living with their parents reported the least amount of stress. On the other hand, female students living with their parents were found to be at a higher risk of stress.

Psychological and physical unhealthiness may be determined by the challenges of a new environment and the stress of transition as well as being separated from previous familiar environment (Fisher & Hood, 1987). Consequently, attachment difficulties including anxiety and depression are expected in the first year of college as students move away from home. Wintre and Yaffe (2000) conducted a study to examine the contributions of perceived parenting style, current relationships with parents, and psychological well being variables on perceived overall adjustment to college. They found that authoritative parenting style had an indirect positive effect on adjustment and current relationships with parents were directly related to overall adjustment to college. Holmbeck and Wandrei's (1993) study also supported the effects of family relations on overall adjustment.

Marital conflict between student's parents and conflicted, over involved or poor attachment relations between the students and parents may have a negative impact on a broad range of coping factors, including personal and social adjustment (Hoffman and Weiss 1987, Lopez Campbell and Watkis 1988), social skills and psychological health (Kenny and Donaldson, 1991), social support and self efficacy for social outcomes (Mallinckrodt 1992), and even commitment in the career decision making process (Bluestein, Walbridge, Friedlander and Palladino, 1991).

Autonomy is one of the factors related to stress. An autonomous state of mind has been associated with feeling less distress and anxiety and with reporting higher levels of social support during the first year in college (Kobak & Sceery, 1988). Autonomous adolescents, who show better emotion regulation capacities than others (Cassidy, 1994), who can rely on others for comfort and help when in need (Belsky & Cassidy, 1994), and for whom separation poses less of a threat (Scharf, 2001), are expected to cope with this transition better than others.

These studies showed that being away from home results in unpleasant psychological effects, such as increased levels of cognitive failure, psychological disturbance, absent-mindedness, increased anxiety, depression and obsessional symptoms. There is extensive evidence to suggest that college can be stressful for many students, entailing a great deal of adjustment to a range of interpersonal, social, and academic demands and situations (e.g., Dunkel-Schetter & Lobel, 1990).

### 1.3.3   Diathesis – Stress

After reviewing the role of personality factors and coping resources, and stress separately on the adjustment literature it would be necessary to evaluate the interaction of these diathesis and stress factors. Research on the role of diatheses factors under stressful conditions will be displayed in this section.

Within a similar perspective as Diathesis – Stress paradigm, Lazarus and Folkman's (1984) transactional model, contends that a person's response to stress that is based on how that person appraises the stress and the resources the person has to cope with the stressor. Folkman and Lazarus (1985) found that people use both problem-solving and emotion-focused coping strategies to reduce stressful events. For instance, if a person perceives a stress positively rather than negatively or as a

33

challenging threat, the person may feel that he or she is able to cope with the stressor, thereby decreasing the overall stressful event. Their model has been used to help people reduce stress. This same model has the potential to be used among first-year college students to assist them to change their perceptions of a stressful situation, such as attending a residential college and to improve their confidence in their abilities to be successful at college.

Halamandaris and Power (1997) investigated the relationship between personality variables (extraversion, neuroticism, achievement motivation, perceived social support) and overall psychosocial adjustment to college life. Adjustment was measured in terms of absence of loneliness and overall subjective satisfaction with several social and academic aspects of college life. In order to investigate the relationship between coping styles and psychosocial adjustment to college life, from a number of demographic, personality, coping and social support variables, and examination stress was chosen as a stress factor. One hundred and eighty three first year home based students completed a questionnaire at the end of the academic year. The results indicated that personality variables correlated significantly with social support and psychosocial adjustment to college life. However, none of the personality variables, perceived social support measures or other psychosocial adjustment indices correlated with academic performance. Emotion focused coping was found to positively correlate with neuroticism and problem focused coping correlated positively with achievement motivation. Several correlations were reported between personality and the different ways of coping with the examinations stress. Distancing oneself from examination stress was the only variable that significantly correlated positively with academic performance. Finally, personality

and social support contributed significantly to the prediction of psychosocial adjustment to college life.

In an attempt to understand how competent adolescents cope with anticipated tasks of college, Silber et al. (1976) conducted a study over a 6-month period, from the spring of the last year of high school through September (prior to student's departure for college). Competent adolescents whose general characteristics were positive attitudes towards new experiences, a tendency to be active in dealing with the tasks of the transition, and an enjoyment of problem solving and pleasure derived from mastering of the challenges. The interviews conducted with the participants indicated that competent students referred back to relevant past experiences of their own which had been adequately mastered; gathered information about the new environment and reduced related ambiguity; prepared for the new situation by rehearsing forms of behavior associated with college students; dealt with concerns about performance at college by redefining an acceptable goal that would permit them to maintain a feeling of satisfaction in their performance; and tended to perceive college as a potentially friendly environment. This perception helped the students sustain the feeling that one would be able to get along well in college.

Coelho, Hamburg, and Murphey (1976) followed the subjects of Silber, et al.'s study (1976) during their first year at college and found very diverse patterns of coping behavior in the new academic environment. Maintaining a sense of worth and keeping anxiety within non interfering limits involved the capacity for doing meaningful work, actively seeking out problem-solving opportunities, and working out different sources of intellectual gratification outside the normal academic curriculum. Additionally if the students experienced some academic disappointment

then they recentered their efforts within long-range purposes, like setting another goal for the course that they were poor in. When the two studies were interpreted together it could be stated that predispositions  (i.e. strengths, vulnerabilities) such as positive attitude towards handling new experiences and enjoyment of problem solving were effective in coping with the stressors of college life.

Aspinwall and Taylor's study (1992) investigated the impact of several individual differences regarding optimism, self-esteem, and locus of control, and coping on college adjustment. It was found that higher the self-esteem, greater the optimism, and an internal locus of control predicted less use of avoidant coping. Avoidant coping, in turn, predicted less successful adjustment to college. Greater optimism and greater desire for control predicted greater use of active coping to deal with the stress of entering college. Active coping, in turn, predicted better subsequent adjustment to college.

Regarding coping as a diathesis factor together with other personality factors such as control (Nezu, 1985), self-concept (Heppner, Reeder, & Larson, 1983), and irrational beliefs (Heppner et al., 1982); research showed that effective and ineffective problem solvers differed in relation to the role of the stated personality factor; while effective problem solving has been associated with rational decision-making styles (Chartrand, Rose, Elliott, Marmarosh, & Caldwell, 1993), and the use of problem-focused coping strategies under stressful conditions (MacNair & Elliott, 1992).

Particularly, research suggests that social problem solving was effective on problem resolution and adjustment over time (D'Zurilla, 1986, 1990). Thus, more effective problem solvers ought to be able to effectively solve their adjustment

problems, and patterns of relationships between variables of the study are more likely to emerge in the longer-term. The only way to sort out potential relationships between social problem solving and key outcome variables is to collect data from a sample of students over the entire course of their time at college. Adjustment during this period is linked to the way individuals cope with that stress, which will have impacts on their physical and psychological health (Aspinwall & Taylor, 1992; van Rooijen, 1986), and academic motivation and performance (Sharma, 1973; Zitzow, 1984).

More recently, Chemers, Hu, and Garcia (2001) examined the effects of academic self-efficacy that is the confidence in ability to perform well academically, optimism, and stress on the academic performance and adjustment of first-year college students. Results indicated that self-efficacy yielded direct and indirect powerful relationships with academic performance and adjustment of first-year college students. Optimism was also found to be related to academic performance and adjustment. Academically confident and optimistic students were more likely to see the college experience as a challenge rather than a threat and they experienced less stress.

Research on all personality, coping, stress, and their interaction indicates that when extraversion, neuroticism, motivation, social support, competence, and locus of control could have either a positive or a negative effect on adjustment to college life depending on the coping style chosen for the stressful condition. It could be stated that when these factors are combined with active, problem focused coping the results on adjustment are more positive, with higher satisfaction with life, higher self esteem, and better psychological health. On the other hand, combinations of the

37

predispositions with more disengaging and emotion focused coping result in the opposite. Thus, it seems that certain strengths or vulnerabilities of students' influence how they appraise the demands of college life, and how they cope with them, which in turn determine their level of adjustment.

**1.4 The Aims and Scope of the Present Study**

College adjustment research, as previously reviewed, includes studies indicating that adjustment is a multidimensional concept. Academic, institutional, social, and personal dimensions of adjustment are continuously predicted by using several indicators of adjustment. These indicators of adjustment are psychological health, well – being, quality of life, and self esteem. However, research refers to these indicators separately instead of considering the need for including measures of these indicators for the same population for a broader understanding of the multidimentional structure of adjustment.

The purpose of the present study, considering the need for better understanding of college adjustment, is to find out positive and negative indicators of psychological health, well – being, positive – negative affect, and self esteem. Basic personality traits, hardiness, and coping styles will be used as predictors of adjustment indicators. Paths that start from personality variables and reach adjustment indicators through coping styles will be investigated. Positive personality variables are hypothesized to predict better adjustment through active coping styles, whereas negative personality variables are hypothesized to predict weaker adjustment through more passive and emotional coping styles.

In order to meet the very purpose, first study will be conducted to explore the views of students on adjustment. For this, college students will be asked to list the

factors that they think are important for adjustment and well – being. The results of this additional study will guide in choosing variables that will be included in the main study for examining the variables related to adjustment and well – being among college students. In other words, in addition to variables those have already been found in the literature to be important for adjustment, the perspectives of college students themselves will also be considered to complete the set of indicators to be used in the main study.

# CHAPTER 2

## STUDY I

A number of variables that are used for predicting and explaining the concept of adjustment are specified in the literature. However, these variables were identified mainly on theoretical ground rather than considering the adjusters' (i.e. students) needs and opinions. Therefore, finding out college students' perceptions on adjustment was one of the important stages of the current research. Thus, the aim of Study I was to explore college students' ideas on the requirements of adjustment and to use this information in the main study in order to contribute to the existing adjustment literature. Another purpose of this study was to explore the match between the literature and the students' perspectives on factors related to adjustment.

## METHOD

### 2.1.1 Participants

114 first year college students participated in this section of the study. 63 participants were female and 51 were male. 21 students were from the Psychology Department whereas 93 students were from the Mechanical Engineering Department.

### 2.1.2 Instruments

Participants completed a form, including information on their gender and four open ended questions: (1) List the five most important factors that you think plays a

role in adjusting well to college life, (2) Think of someone of your own sex who has adjusted well to life at college. List three most important factors that you think have played a role in his/her adjustment process, (3) Think of someone of the opposite sex who has adjusted well to life at college. List three most important factors that you think have played a role in his/her adjustment process, (4) List the five factors that you think are important for happiness in life (See appendix A).

**2.1.3 Procedure**

Research design and instruments for the first and the main study were first submitted to the Institute of Social Sciences Ethical Committee, at Middle East Technical College for suitability of human research ethical conduct. Following the Institute's approval, first year classes were selected for administration, from the Mechanical Engineering and Psychology departments due to availability. For each class the course instructor's approval was taken. The administration was conducted by the researcher at the beginning of class hours and it took approximately 10 minutes. Informed consent was taken from the participants and participation was voluntary. Debriefing about the aims of the study was provided for all participants after the administration process.

**2.1.4 Statistical Analysis**

Data was analyzed through the Statistical Package for Social Sciences (SPSS) 16. Descriptive statistics were used for analyzing participant characteristics and Cohen's Kappa coefficients (Cohen, 1960) were calculated for inter rater reliability though crosstabs. Data was checked for missing answers and two cases were excluded from the analysis due to incomplete forms.

**RESULTS**

After reading all the answers, for each question several answer categories to cover all the responses were formed by the researcher. These categories were each given a general label and examples were provided for explanation. In order to evaluate the answers to these open-ended questions, firstly, two raters coded all the answer sheets independently. In the categorization process, if one participant included more than one category in his/her answers, then the most frequent category that the subject referred to was coded. Ratings that were provided by the two different raters were analyzed for inter-rater agreement using Cohen's Kappa coefficient (Cohen, 1960).

**2.2.1 First Question: List the five most important factors that you think play a role in adjusting well to college life**

Seven categories were created for the first question based on a general inspection of the answers by the sample. Those were autonomy (answers related to self efficacy), social support (provided by family, friends, romantic partner, and academicians), personality, physical conditions (campus facilities, place of residence, and academic opportunities), economic status, motivation, and knowledge/experience (knowledge about the general rules and regulations of the college, prior experience in the campus area, preparation year, and orientation programs provided by the college). The Cohen's kappa coefficient was found to be .87 ($p < .001$) for the first question. The percentages for each response category for female and male participants are given in Table 1. Chi-square analysis was conducted for gender differences and the results revealed no significant gender differences in terms of choice of categories ($\chi^2 = 3.48, p > .05$).

42

Table 1. Five most important factors for adjusting to college life.

|  | Autonomy | Social Support | Personality | Physical conditions | Economic Status | Motivation | Knowledge/ Experience |
|---|---|---|---|---|---|---|---|
| % of female | 12.7 | 28.6 | 22.2 | 12.7 | 6.3 | 11.1 | 6.3 |
| % of male | 18.4 | 24.5 | 18.4 | 18.4 | 10.2 | 8.2 | 2.0 |
| % of total sample | 15.2 | 26.8 | 20.5 | 15.2 | 8.0 | 9.8 | 4.5 |

Social support and personality were the most frequently chosen categories, whereas economic status and knowledge/experience were the least frequently given responses.

**2.2.2 Second Question: Think of someone of your own sex who has adjusted well to life at college. List three most important factors that you think have played a role in his/her adjustment process**

The examination of replies showed that the categories for the second question were exactly same seven categories as those that were formed for the first question. Cohen's Kappa for inter-rater reliability was found to be .79 ($p < .001$). The percentages for each response category for female and male participants are given in Table 2. Chi-square analysis was conducted for gender differences in terms of choice of category and the results were not found to be significant ($\chi^2 = 8.37$, $p > .05$).

Table 2. Three most important factors for the same sex students.

|  | Autonomy | Social Support | Personality | Physical Conditions | Economic Status | Motivation | Knowledge/ Experience |
|---|---|---|---|---|---|---|---|
| % of female | 14..3 | 15.9 | 42.9 | 15.9 | 1.6 | 6.3 | 3.2 |
| % of male | 8.5 | 17.0 | 42.6 | 10.6 | 10.6 | 2.1 | 6.4 |
| % of total sample | 11.8 | 16.4 | 42.7 | 13.6 | 5.5 | 4.5 | 4.5 |

Personality and social support were the most frequently chosen, whereas motivation and knowledge/experience were the least frequently given responses.

**2.2.3 Third Question: Think of someone of the opposite sex who has adjusted well to life at college. List three most important factors that you think have played a role in his/her adjustment process**

For the third question, physical appearance (answers related to looks, cleanliness, and dressing style) was another response category in addition to autonomy, social support, personality, physical conditions, economic status, motivation, and knowledge/experience. Inter-rater reliability of these eight categories were tested through the Cohen's Kappa analysis and the kappa coefficient was found to be .80 ($p < .001$) indicating reliable results. The percentages for each response category for female and male participants are given in Table 3. Results of the chi-square analysis conducted for gender differences were also significant ($\chi^2 = 27.81$, $p < .001$). Females were more likely to give importance to personality and autonomy for male adjustment, whereas males were more likely to find physical appearance as impertant and personality as less important for female adjustment.

Table 3. Three most important factors for the opposite sex students.

| | Autonomy | Social Support | Personality | Physical Conditions | Economic Status | Motivation | Knowledge/ Experience | Physical Appearance |
|---|---|---|---|---|---|---|---|---|
| % of female | 20.3 | 10.9 | 48.4 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 |
| % of male | 16.7 | 16.7 | 18.8 | 14.6 | 4.2 | 2.1 | 0.0 | 27.1 |
| % of total sample | 18.8 | 13.4 | 35.7 | 8.0 | 3.6 | 2.7 | 1.8 | 13.4 |

Regardless of gender, personality and autonomy were the two most frequently chosen categories, whereas economic status and motivation were the least frequently given responses. The most markable difference was on personality and

physical appearance. Males seemed to find physical appearance as more important and personality as less important for females.

**2.2.4 Fourth Question: List the five factors that you think are important for happiness in life**

General categories for happiness in life were grouped as autonomy, social support, personality, economic status, success/motivation, psychological health, and physical health. Analysis revealed the Cohen's Kappa coefficient as .82 ($p$ <.001) for the fourth question. The percentages for each response category for female and male participants are given in Table 4. Chi-square analysis was conducted and the results were not significant ($\chi^2$ = 2.21, $p$ > .05). There were no gender differences in terms of choice of category.

Table 4. Five most important factors for happiness in life.

|  | Autonomy | Social Support | Personality | Physical conditions | Economic Status | Success/ Motivation | Psychological Health | Physical Health |
|---|---|---|---|---|---|---|---|---|
| % of female | 3.1 | 17.2 | 14.1 | 6.2 | 3.1 | 14.1 | 26.6 | 15.6 |
| % of male | 4.2 | 12.5 | 22.9 | 6.2 | 4.2 | 12.5 | 20.8 | 16.7 |
| % of total sample | 3.6 | 15.2 | 17.9 | 6.2 | 3.6 | 13.4 | 24.1 | 16.1 |

Psychological health, personality, physical health, and social support were the most frequent response categories. On the other hand autonomy and economic status were the least frequently given answers.

According to students' perspective on adjustment to college life, only the diathesis side of the Lazarus's stress model was emphasized by including autonomy, personality, and social support in response categories. Stress was considered as a factor for happiness and was referred to as psychological and physical health.

However, these items brought by the students at this stage of the research were more to be common outcome variables than predictors as used in the adjustment literature.

Considering the perspective of the college students, overall dependent variables of the main study were set as psychological health, psychological well being, autonomy, physical health and social/emotional quality of life. The predictor variables were identified as coping styles and personality traits. Stress as measured by Life Events Inventory for College Students is one of the main variables of the main study. Stress factor includes the daily hassles of college students and was used as a control variable.

**DISCUSSION**

The first study was conducted to have an insight through college students' perspectives on adjustment to college and happiness in life. The theories of student adjustment and happiness have proposed ways for adjusting to certain circumstances and models explaining the individuals' way to happiness. However, they were not developed after an analysis of students' perspectives and needs on the subject matter.

In Study I, four open ended questions were asked to college students in order to obtain their own perspectives on adjustment and happiness within the diathesis-stress model. The first question was on the general requirements of adjustment. Students gave answers related to autonomy, social support, personality, physical conditions of the college, economic status, motivation, and knowledge/experience. Most popular categories the students referred to in the order of importance were personality, social support, and autonomy. Considering the diathesis- stress paradigm personality and autonomy can be listed under the diathesis side of the model.

46

However, the presence or absence of social support can be taken as a stress factors. The students listed economy and knowledge/experience as least important. Thus, economical means which can be a factor that combats stress is not regarded as an important factor for adjustment. It could be interpreted that according to students' perspectives, diathesis or resiliencies such as personality and autonomy seem to be more important for adjustment than the stress factor.

The second and third questions were about the requirements of adjustment for different genders. The second question asked the students to list the features of the same sex students who adjusted well to college life. All students gave answers related to autonomy, social support, personality, physical conditions of the college, economic status, motivation, and knowledge/experience for their same sex friends. Similarly Keith and Schalock, (1994) found that feeling in control over life, satisfaction with school, perceived well-being, and social belonging were important issues for college students. Berry (1995) also supported these findings and found that for female students, the impact of teachers, social life, finances, housing, personal safety, and life stress were important domains of college adjustment. Although not significant, the order of the importance of the answers differed for males and females. Female students emphasized the importance of personality, social support, physical conditions, and autonomy; whereas male students favored personality, social support, physical conditions, and economic status over autonomy. Economic status seemed to be more important for males than females.

On the other hand gender differences were significant for the third question. Students were asked to list the features of the opposite sex students, who adjusted well to college life. Answers related to autonomy, social support, personality,

47

physical conditions of the college, economic status, motivation, knowledge/experience, and physical appearance were given by all students. Female students again favored personality, autonomy, and social support for male students; whereas physical appearance, personality, autonomy, and social support were important female features according to male students. Male students thought physical appearance was more important than personality and autonomy for females in order to adapt well to college, although they did not report it on the second question for male students.

The male role in Turkish social life includes contributing to the family's welfare through financial and practical help, and taking care of the aging parents. Turkish parents were found to let their sons behave more independently and aggressively, whereas more dependence and obedience was expected from their daughters (Kagitcibasi, 1982). Related to the literature on gender differences in Turkey, the findings of the current study once more underlined the distinct differences of roles. Male students consistently attributed physical appearance over autonomy for the adjustment of female students, and females gave autonomy as a more important characteristic for males. On the other hand knowledge / experience, motivation, and economic status were the least important factors for both males and females.

What is striking in all questions is that, economy does not seem to be important for college students, and personality always seems to be important. Middle East Technical University is one of top ranked universities in Turkey and only 1% of the college entrance examination applicants are enrolled. The campus area has many opportunities for the students including, academic facilities, social clubs, and

accommodation that are approachable to the college students in terms of economic requirements. These opportunities that are unique to the college may cause students to have other priorities than economic status. Additionally students of Middle East Technical University may be coming from rich or well to do families. The information regarding students' socio economic status was not gathered for Study I. Further studies may consider students needs for adjustment to college for students that are coming from different socio economic status.

Answers for the first three questions indicate that personality, social support, and autonomy were the most important characteristics for adjustment to college according to Turkish University Students regardless of their gender; whereas knowledge/experience, motivation, and economic status were the least important. Turkish culture has repeatedly been described as a "culture of relatedness" and a combination of individual and group loyalties (Kagitcibasi, 1996). This description also supports kinship and friendship networks (Kagitcibasi, 1982; Kagitcibasi & Sunar, 1992; Kandiyoti, 1982), which provide individuals with emotional support and strength. The emphasis on social support in the present study is therefore a culturally supported need for Turkish university students.

Consistent with the scope of Study I, another study explored the sources of distress for students' during the first year of college (Lokitz & Sprandel 1976). In their study first year students reported academic and social concerns that they thought influenced their adjustment during the freshmen year; indicating that if the students could not establish a social support system, they may have difficulty in their social adjustment. Answers to the first three questions of Study I include the need for social support in order to well adjust to college and support Lokitz and Sprandel's

(1976) findings.

Turkish men and women are considered to have different personality traits. According to the definition of cultural relatedness, Gurbuz (1985) found that being "independent," "aggressive," and "individualistic," were undesirable; whereas "dependency" was desirable for both sexes in Turkey. However, later findings (Lajunen & Özkan, 2005) argued that some culturally new characteristics (i.e., "independent," "assertive," "strong personality," "has leadership abilities," "willing to take risks," "dominant," "self-sufficient," "defends own beliefs") were now desirable for both sexes due to the rise of psychological values such as loving parent child relationship instead of child raring as an investment to the future. The importance of personality and autonomy according to the Turkish university students' perspectives supports the changes in family lives and desired characteristics in terms of personality and autonomy. However, according to the current results autonomy was seen as important by female students for male students' adjustment. This may point culturally created gender differences for males and females which may still be influential.

On the last question general requirements of happiness in life were asked. Different from the requirements of adjustment, students listed autonomy, social support, personality, economic status, motivation/success, psychological health, and physical health as general categories. Regardless of gender, students listed psychological health and physical health as the most important factors. These categories could be listed on the stress side of the diathesis-stress paradigm. The findings could be interpreted that according to Turkish university student's perspectives, absence of psychological and physical distress was more important than

50

resiliencies for happiness in life. However, personality and social support again appeared as important categories for happiness, whereas economy was listed very infrequently.

Overall stress has been reported to be a broad factor that has impacts on adjustment. Pancer, Hunsberger, Pratt, and Alisat (2000) reported that the students experiencing low levels of stress were relatively well-adjusted to the college than students experiencing high levels of stress. According to the results of Study I students listed the diathesis part of diatheses-stress model over the stress part for better adjustment to college. Students did not list distress due to conditions in college as an issue of adjustment and they seemed to believe that adjustment could be accomplished through personal and social resiliencies. However they tended to give answers putting the stress part of the model over the diathesis part for happiness in life. In other words hey thought distress was the main issue of happiness in life and that, if they had good psychological and physical health they could have increased well – being and be satisfied with their lives. Since METU campus is one of the best developed in Turkey, students' answers on the diathesis side may be understood in this context. They might have believed that with personality and social support resources adjustment can be formulated. Thus, it is necessary to examine the views of students from other universities.

As a conclusion it could be stated that according to college students' perspectives personality, autonomy, physical health, and psychological health were the most important factors related to adjustment and happiness. Females mostly expressed their needs for certain personality characteristics, social support, autonomy, and psychological health; whereas males generally emphasized the need

51

for personality characteristics, social support, economic status, and physical health. At this point it could be concluded that overall Turkish college students' perspectives matched the research findings on adjustment in the literature. Taking their perspectives into account, personality, autonomy, psychological health, physical health and well being were included as major variables in the main study.

**2.3.1 Limitations and Directions for Future Research**

Study I was conducted with freshmen year students at Middle East Technical College and the participants were mainly engineering students. These participant characteristics would bring along the question of generalizibility of the results, thus enlarging the sample to a wider range of departments and universities would help handle this generalizibility issue. Conducting similar studies with students from each grade of college, including students from the preparation year, and from different colleges could also provide the literature with comparisons of student perspectives for different years of college life. By this way, effects of experience and personal growth on students' perspectives about adjustment and happiness could be more visible to researchers.

Participants of Study I were not asked to report any kind of demographic information, except for department and gender. Demographic information on age, socioeconomic status, family type, place of residence and GPA could be helpful on distinguishing which students needed what in order to well adjust to college life. Such information would also lead college counseling services to better get to know and understand college students concerns and needs; hence to create more enhanced and effective support systems in helping them.

Additionally, it was clear that personality was an important factor for college

students. However, questions presented to the college students within this study did not ask them the important aspects of personality according their view. Future research should investigate what aspects of personality are important for college students and consider these aspects for better understanding college students' adjustment.

### 2.3.2 Implications for University Counseling Services

University students emphasized the importance of social support and autonomy which could be some useful information for university counseling services for better understanding university students' needs in the adjustment processes. Supporting the students with social skills training may improve students' autonomy and help them make better use of the university's social facilities.

Knowledge/experience was a factor that was least mentioned by the university students. Thus, in addition to the content of orientation programs that provide information for students, the importance of social skills could be stressed for the students.

# CHAPTER 3

# MAIN STUDY

First study was conducted to explore the views of university students on adjustment and to use their point of view of adjustment as a contribution to the main study. Several variables (i.e. personality, autonomy, psychological health, physical health, and well-being) were proposed by the university students in the first study. In addition to variables those have already been found in the literature such as coping and hardiness, the perspectives of university students themselves were taken into consideration to determine the set of indicators to be used in the main study. Thus, psychological health, well-being, life quality, and self esteem were selected as outcome variables. The purpose of the main study was then determined as to find out the predictors of these outcome variables and to investigate the paths leading to adjustment by using the selected predictor variables (i.e. different coping styles and personality traits).

# METHOD

## 3.1.1 Participants

Three hundred and one university students all in their freshmen years participated in the main study. 238 students were recruited from the faculty of Engineering and 63 were recruited from the faculty of Arts and Sciences and faculty

of Administrative Sciences. 34 % of participants were female ($n = 102$) and 66% were male ($n = 199$). Descriptive information regarding participants' age, parents' age, and GPA's are summarized in Table 5.

Table 5. Descriptive Statistics for participant demographic characteristics

|  | Mean | SD | Range |
|---|---|---|---|
| Age | 19.27 | 0.87 | 17 - 20 |
| Mothers' Age | 45.93 | 4.48 | 33 - 57 |
| Fathers' Age | 50.18 | 4.88 | 38 - 71 |
| GPA | 3.11 | 0.77 | 0-60 – 4.00 |

Parental education was another participant characteristic. As displayed in Table 6, 41% of mothers ($n = 124$) and 59% of fathers ($n = 179$) were university graduates, 28 % of mothers ($n = 85$) and 21 % of mothers ($n = 65$) were high school graduates, and 26 % of mothers ($n = 80$) and 17 % of fathers ($n = 53$) were elementary and middle school graduates.

Table 6. Descriptive statistics for parent education

|  | Mothers' Education | | Fathers' Education | |
|---|---|---|---|---|
|  | N | % | N | % |
| None | 11 | 3.7 | 2 | 0.7 |
| Elementary School | 63 | 20.9 | 37 | 12.3 |
| Middle School | 17 | 5.6 | 16 | 5.3 |
| High School | 85 | 28.2 | 65 | 21.6 |
| University | 124 | 41.2 | 179 | 59.5 |

### 3.1.2 Instruments

### 3.1.2.1 Demographic Information Form

Participants were administered a demographic information form. The form included information on age, gender, mothers' and fathers' age and education, department and GPA (See Appendix B).

### 3.1.2.2 Brief Symptom Inventory

Brief Symptom Inventory (BSI) was developed by Derogatis (1983) as a 53 item Likert-type scale where each item refers to a psychological symptom and rated on a six poing scale between 0 and 5 (0 = never and 5 = always). Şahin and Durak (1994) conducted the reliability and validity studies for a Turkish sample and reported the internal consistency of the scale as .94. For the current study the Alpha reliability coefficient for the total scale was found to be .89 (See Appendix C).

### 3.1.2.3 Positive and Negative Affect Schedule (PANAS)

The Positive and Negative Affect Schedule (PANAS) (Watson, Clark, & Tellegen, 1988) was developed to measure affectivity. Schedule includes two subscales, named as Positive Affect and Negative Affect (See Appendix D). Both subscales consist of 10 items that are rated on a five-point Likert-type scale (1 = never and 5 = always). The subscales were shown to be largely uncorrelated and stable up to a 2-month period. Watson et al., (1988) reported the reliability of the scale for positive affect as.88 and for negative affect as .87. The reliability and validity studies for the Turkish version were conducted by Gençöz (2000) and reliability coefficients for positive and negative affect were reported as .83 and .86 respectively. Scale reliability was tested for the present study. Cronbach Alpha coefficients were .83 for positive affect and .84 for negative affect.

### 3.1.2.4 Quality of Life Scale Short Form 36

The scale is a generic measure and was developed to assess life quality by the Rand Corporation (Ware & Sherbourne, 1992). It has 36 items and 8 subscales namely physical functioning, social functioning, physical role dysfunction, emotional role dysfunction, mental health, energy, pain, and general health. Item ratings vary for each question (See Appendix E). Total scale scores range from 0 to 100 where 0 refers to low life quality and 100 refers to high life quality. Turkish reliability and validity studies were conducted and the reliability values were reported to be similar to the original scale (Koçyiğit, Aydemir &, Fişlek, 1999).

For the current study, a higher order factor analysis was conducted for the scale and the analysis revealed a two factors solution. Factors were named as Social / Emotional Quality of Life and Physical Quality of Life, and the Cronbach Alpha coefficients were .88 and .84 respectively (see section 3.2.1 for factor analysis).

### 3.1.2.5 Rosenberg's Self Esteem Scale

Rosenberg's Self Esteem Scale (Rosenberg, 1995) is composed of 10 items that are rated on a 5-point Likert-type scale (1=strongly disagree and 5=strongly agree) (See Appendix F). Higher scores imply higher self esteem. The scale was standardized for a Turkish sample by Çuhadaroğlu (1986) who found reliability and validity coefficients of the scale to be comparable to those of the original values. Scale reliability was tested for the present study. Cronbach Alfa coefficient was found to be .89.

### 3.1.2.6 Basic Personality Traits Inventory

The inventory has 47 items and was developed for measuring Turkish population's basic personality traits (Gençöz. & Öncül, in progress). There are six

factors of the inventory measured on a 5 point Likert type scale (1 = not suits me at all and 5 = definitely suits me) (See Appendix G). Scale reliability was tested for the present study. The original scale reliability values and the values for the present study can be summarized for each factor could in Table 7.

Table 7. Scale reliability values for Basic Personality Traits Inventory

| Factor | Original scale reliability | Scale reliability for the present study |
|---|---|---|
| Extroversion – Introversion | .89 | .87 |
| Conscientiousness | .85 | .85 |
| Agreeableness | .85 | .82 |
| Neuroticism–Emotional Stability | .83 | .80 |
| Openness/Intellect | .80 | .74 |
| Negative Valence | .71 | .65 |

**3.1.2.7 Hardiness Scale**

The original Hardiness Scale (Madi, 1987) was composed of 50 items that were rated on a 4-point Likert- type scale anchored by 0 = strongly disagree and 3 = strongly agree (See Appendix H). Three subscales were reported for the original scale namely challenge, commitment, and control. Adaptation studies for a Turkish sample were conducted by Motan (2002) and two factors were identified as commitment and control with alpha coefficients of .79 and .71 respectively. Scale reliability was tested for the present study, yielding Cronbach alpha coefficients .67 for commitment and .63 for control.

**3.1.2.8 Turkish Ways of Coping Questionnaire**

The original questionnaire was formed by Folkman & Lazarus (1980) and included 68 items (See Appendix I). The scale was standardized for a Turkish sample by Siva (1991). The Turkish version included 6 additional items and response style

was a 5-point Likert-type scale (1 = strongly disagree and 5 = strongly agree). Factor structure of the scale was investigated in a different study (Gençöz, Gençöz & Bozo, 2006) and five factors were identified namely problem focused coping ($\alpha$=.90), religious coping ($\alpha$=.89), seeking social support ($\alpha$=.84), helplessness / self blame ($\alpha$=.83) and disacting / avoidance ($\alpha$= .76). Scale reliability was tested for the present study and results were similar. Cronbach Alpha coefficient was .90 for problem focused coping, .83 for religious coping, .80 for seeking social support, .77 for helplessness / self blame, and .71 for disacting / avoidance.

### 3.1.2.9 Life Events Inventory for University Students

Life Events Inventory for University Students (Oral, 1999) is a 5 point Likert-type scale with 49 items (See Appendix J). It was developed by Oral (1999) for measuring daily stress / hassles in university students and the reliability coefficient was reported to be .89 for the total scale. Scale was tested for reliability with the current data for the present study and the Cronbach Alpha coefficient was .91 for the whole scale.

### 3.1.3 Procedure

Research design and instruments for the main study was first submitted to the Institute of Social Sciences Ethical Committee at Middle East Technical University for suitability of human research ethical conduct. Following the Institute's approval, first year classes were selected for administration from the Engineering Faculty, Faculty of Arts and Sciences, and the Faculty of Administrative Sciences in terms of availability. For each class the course instructor's approval was taken. The order of the instruments was counterbalanced prior to administration. Administration was conducted by the researcher at the beginning of class hours and it took 35 minutes.

Informed consent was taken from the participants and participation was voluntary. Debriefing about the aims of the study was provided for all participants after the administration process.

**3.1.4 Statistical Analysis**

Data was analyzed through the SPSS 16.  Prior to analysis data were screened for accuracy of data, outliers and missing values.  Sixteen missing cases were detected and excluded from the analysis. Each variable was screened for univariate and multivariate outliers separately. No case with an extreme z score was detected according to Mahalanobis Distance ($p>$ 001). Data was checked for adequacy of sample size and variable-subject ratio showed that sample size was satisfactory for the analysis.

Assumptions of normality were tested through histograms and skewness-kurtosis values. Normality assumptions were met for all the variables and no transformations were performed for further analysis.  After the test of normality, data was checked for multicollinearity and singularity. Tolerance values were close to one but there were no values greater than .30 in the condition index meaning multicollinearity and singularity assumptions were met. 285 cases were included in the final analysis. Following data cleaning, data was analyzed through several statistical procedures including descriptive, data reduction, and multiple regression analysis.

**RESULTS**

### 3.2.1 Factor Structure and Reliability of the Quality of Life Scale Short Form 36

The eight original factors of the Turkish version of the scale were subjected to a second order factor analysis with varimax rotation. Scree plot clearly suggested a two factor solution. Mental health, energy, social functioning, emotional role dysfunction factors were grouped under the first factor with an eigenvalue of 3.50, and explained 44 % of the total variance; items constituting this factor had a Cronbach alpha coefficient of .88. This factor was named as Social/Emotional Quality of Life. Physical functioning, pain, general health, and physical role dysfunction loaded under the second factor with and eigenvalue of 1.10 explaining 13 % of the total variance. Items under this factor revealed a Cronbach alpha coefficient of .84, and this factor was named as Physical Quality of Life. Factor loadings for each factor are displayed in Table 8.

Table 8. Factor loadings for second order factor analysis of quality of life scale

|  | Factor I<br>Social / Emotional Quality Of Life | Factor II<br>Physical Quality Of Life |
|---|---|---|
| Mental Health | **.79** | .33 |
| Energy | **.79** | .38 |
| Social Functioning | **.73** | .19 |
| Emotional Role Dysfunction | **.68** | .20 |
| Physical Functioning | .32 | **.77** |
| Pain | .30 | **.69** |
| General Health | .23 | **.66** |
| Physical Role Dysfunction | .21 | **.52** |

**3.2.2 Correlation Analysis**

Prior to data analysis inter variable correlations were checked for collinearity. Brief Symptom Inventory, PANAS: Negative Affect and Positive Affect, Self Esteem, Social /Emotional Quality of Life, and Physical Quality of Life, which were taken as measures of degree of adjustment, were examined for their relationship with the personality variables which were defined to be the basic personality traits and hardiness and coping styles. The results are summarized in Table 9.

Correlations of BSI with extraversion, conscientiousness, neuroticism, openness/intellect, and control were significant. Helplessness / self blame and religious coping were the two coping styles that significantly correlated with BSI. Correlations ranged from .30 to .56 ($p < .001$). Negative Affect was found to be significantly correlated with neuroticism, commitment, and control ($p < .001$). Correlation coefficients were between .31 and .53. Helplessness was the only coping style that correlated with negative affect ($p < .001$).

Social/Emotional Quality of Life was found to be significantly correlated with neuroticism, openness/intellect, commitment, and control with correlations ranging from .30 to .56. Problem focused coping (.34) and helplessness (.50) were shown to be the two coping styles that significantly correlated with social/emotional quality of life. Physical Quality of life was found to be significantly correlated with control. Correlation coefficients for the relationship between Positive affect, conscientiousness, commitment, and problem focused coping were found to be significant with coefficients ranging from .29 to .38. Self esteem was shown to be significantly correlated with extraversion, openness, commitment, and control with

correlation coefficients ranging from .38 to .53. Problem focused coping (.43) and helplessness/self blame (.56) were the two coping strategies that significantly correlated with self esteem.

Table 9. Significant correlations between dependent and independent variables

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | |
| 2 | **.65\*\*** | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | |
| 4 | **-45\*\*** | **-35\*\*** | | | | | | | | | | | | | | | | | |
| 5 | **-61\*\*** | **-55\*\*** | **.32\*\*** | **.52\*\*** | | | | | | | | | | | | | | | |
| 6 | **.64\*\*** | **.49\*\*** | | **-48\*\*** | **-56\*\*** | | | | | | | | | | | | | | |
| 7 | **-.48\*\*** | **-.42\*\*** | .28* | **.30\*\*** | **.42\*\*** | **.43\*\*** | | | | | | | | | | | | | |
| 8 | **-30\*\*** | -.22* | | .18* | .22* | -.24* | **.39\*\*** | | | | | | | | | | | | |
| 9 | | | **.32\*\*** | | .16* | | .26* | | | | | | | | | | | | |
| 10 | | .23* | | | | | .24* | .28* | .22* | | | | | | | | | | |
| 11 | **.48\*\*** | **.53\*\*** | | -.27* | **-39\*\*** | **.42\*\*** | -.27* | -.15* | | | -.16* | | | | | | | | |
| 12 | **-32\*\*** | -.18* | **.36\*\*** | .20* | **.30\*\*** | -.26* | **.53\*\*** | **.45\*\*** | | | **.34\*\*** | | | | | | | | |
| 13 | .23* | .29* | | | | .20* | -.23* | -.25* | | **-41\*\*** | **.41\*\*** | | | | | | | | |
| 14 | -.24* | -.29* | **.38\*\*** | .23* | **.34\*\*** | -.20* | **.43\*\*** | .30* | .26* | **.35\*\*** | **-33\*\*** | **.38\*\*** | -27* | | | | | | |
| 15 | **.30\*\*** | -.26* | | -.24* | | .22* | -.18* | | | | | .18* | -.17* | .24* | | | | | |
| 16 | | | | | | | .17* | .27* | .14* | **.33\*\*** | | | -21* | .18* | | | | | |
| 17 | **.56\*\*** | **.47\*\*** | -.19* | -.30* | **-50\*\*** | **.48\*\*** | **-.56\*\*** | **-34\*\*** | -.19* | | **.35\*\*** | **-38\*\*** | | -.26* | **.30\*\*** | | | | |
| 18 | | | | | .19* | | | | | | .17* | -.20* | | **.41\*\*** | **.47\*\*** | | | | |
| 19 | -.26* | -.29* | **.34\*\*** | .16* | **.44\*\*** | -.28* | **.38\*\*** | .19* | **.35\*\*** | **.30\*\*** | -.20* | **.30\*\*** | -16* | **.52\*\*** | | .21* | -.31* | .21* | |
| 20. | **-.31\*\*** | **-.31\*\*** | .15* | **.34\*\*** | **.33\*\*** | **-.39\*\*** | **.40\*\*** | .22* | .15* | | -.28* | .29* | -.18* | **.35\*\*** | **-.36\*\*** | | **-.43\*\*** | -.15* | **.38\*\*** |

*Significant at $p < .05$ level
**Significant at $p < .001$ level

| | | |
|---|---|---|
| 1. BSI | 6. Life Events Inventory | 11. Neuroticism |
| 2. Negative Affect | 7. Self esteem | 12. Openness / Intellect |
| 3. Positive Affect | 8. Extraversion | 13. Negative Valence |
| 4. Physical Quality of Life | 9. Conscientiousness | 14. Problem Focused Coping |
| 5. Social Quality of Life | 10. Agreeableness | 15. Religious Coping |

16. Seeking Social Support
17. Helplessness / Self Blame
18. Avoidance / Disacting
19. Commitment
20. Control

### 3.2.3 Factor Structure of the Indicators of Adjustment

Psychological heath (BSI scores), Negative Affect, Positive Affect, Social/Emotional Quality of Life, Physical Quality of Life, and Self Esteem were subjected to factor analysis in order to explore whether these variables can be grouped. A second order factor analysis with varimax rotation was conducted. Scree plot suggested a two factor solution. All of the indicators except positive affect (i.e poor psychological heath (BSI scores), Negative Affect, Social/Emotional Quality of Life, Physical Quality of Life, and Self Esteem) were grouped under the first factor with an eigen value of 2.97, and explained 49% of the total variance; items constituting this factor had a Cronbach alpha coefficient of .84., Positive Affect on the other hand, loaded under the second factor with an eigen value of 1.13 explaining 19% of the total variance. Cronbach alpha coefficient for positive affect was found as .83. Factor loadings for each factor are displayed in Table 10.

Table 10. Factor Loadings for the Indicators of Adjustment

|  | Factor I | Factor II |
|---|---|---|
| Psychological Health | **-.86** | .23 |
| Negative Affect | **-.84** | .28 |
| Social / Emotional Quality of Life | **.76** | .19 |
| Physical Quality of Life | **.68** | .20 |
| Self Esteem | **.56** | .47 |
| Positive Affect | .21 | **.95** |

Factor loadings for the analysis indicate that self esteem has rather high loadings for both factors. Correlations of self esteem with the other indicators of adjustment were investigated and it was found that self esteem has correlations with psychological health (.48), negative affect (.42), social emotional quality of life (.42), and physical quality of life (30) at $p < .001$. Due to its strong relationship with the

other variables and its higher loadings in the first factor, self esteem was retained in the first factor. On the other hand positive affect stood as a separate dimension regarding the concept of adjustment.

Within Factor I, poor psychological health and negative affect had negative loadings; whereas social/emotional quality of life, physical quality of life, and self esteem had positive loadings. It could be stated that, if factor one were named as the indicators of adjustment, than the presence of psychological health, life quality, and self esteem, and absence of negative affect indicate adjustment as a whole measure. In the next section mediation analyses with all the indicators of adjustment will be presented.

### 3.2.4 Mediation Analysis

### 3.2.4.1 Part I: Predicting the Indicators of Adjustment

Six hierarchical regression analyses were conducted in order to see which personality variables and coping styles predicted the six dependent variables, namely Brief Symptom Inventory scores, Negative Affect, Positive Affect, Social/Emotional Quality of Life, Physical Quality of Life, and Self Esteem separately. For each regression analysis, four steps were set.

At the first step gender, parent's education, and GPA were entered as control variables. At the second step Life Events Inventory scores were added to the equation as the stress factor. At the third step the scores of extraversion, conscientiousness, agreeableness, neuroticism, openness/intellect, negative valence, commitment, and control were entered as personality variables. Problem focused coping, religious coping, seeking social support, self blame/helplessness, and disacting/avoidance were entered at the final step for the predictor role of coping.

Mean and Standard Deviation values for all the variables used in hierarchical regression analysis are displayed in Table 10. Standard deviation values for the Life Events Inventory Scale ($SD$ = 10.31), Brief Symptom Inventory Scale ($SD$ = 11.85), and Problem Focused Coping ($SD$ = 11.11) were found to be rather high, indicating a heterogeneous structure for the group.

Table 11. Means and SD's for the Dependent Variables

|  | N | M | SD | Range |
|---|---|---|---|---|
| Life Events | 301 | 114.14 | 10.31 | 56 - 183 |
| BSI | 301 | 49.52 | 11.85 | 43 - 157 |
| Negative Affect | 301 | 23.26 | 6.57 | 11 - 46 |
| Positive Affect | 301 | 30.21 | 7.07 | 12 - 50 |
| Social / Emotional Quality of Life | 301 | 47.53 | 9.71 | 19 - 70 |
| Physical Quality of Life | 301 | 63.70 | 6.76 | 41 - 74 |
| Self Esteem | 301 | 30.67 | 5.33 | 11 - 44 |
| Extraversion | 301 | 27.30 | 6.57 | 10 - 40 |
| Conscientiousness | 301 | 27.73 | 6.32 | 10 - 40 |
| Neuroticism | 301 | 25.46 | 6.51 | 9 - 44 |
| Openness / Intellect | 301 | 22.22 | 3.85 | 6 - 30 |
| Commitment | 301 | 20.21 | 4.93 | 7 - 36 |
| Control | 301 | 32.19 | 4.73 | 16 - 45 |
| Problem Focused Coping | 301 | 68.40 | 11.11 | 30 - 99 |
| Helplessness / Self Blame | 301 | 27.94 | 6.07 | 12 - 48 |

### 3.2.4.1.1 Brief Symptom Inventory

First hierarchical regression analysis was run on BSI scores. The results, as shown in Table 11, indicated that the total variance explained was 59 %, $R$ = .772. At the first step control variables made a significant contribution to psychological symptoms of the participants ($R^2$ = .04, $F\Delta$ (4, 281) = 3.06, $p$ < .001). Life Events inventory score was entered into the equation at the second step and explained 37% of the total variance ($F\Delta$ (1, 280) = 179.71, $p$ < .001). When personality variables were entered into the equation at the third step, they explained a further 12 % of the total variance ($R^2$ change = .12, $F\Delta$ (8, 272) = 8.32, $p$ < .001). T-test results for

consciousness ($t$ (285) = 3.46, $p <$ .001), neuroticism ($t$ (285) = 5.57, $p <$ .001), and openness / intellect ($t$ (285) = -3.00, $p <$ .001) were significant at this step. At the fourth step coping styles contributed a further 6.5% of the variance in BSI scores ($R^2$ change = .065, $F\Delta$ (5, 267) = 8.56, $p <$ .001). T-test result for helplessness / self blame ($t$ (285) = 6.00, $p <$ .001 was significant at this step.

Table 12. Hierarchical Regression for Brief Symptom Inventory

| Variables in set | F change | df | t ( for set ) | β | pr | $R^2$ |
|---|---|---|---|---|---|---|
| Step I | 3.06** | 4, 281 | | | | .04 |
| Sex | | | .18 | .01 | .01 | |
| Mothers' Education | | | -2.29* | -.18 | -.13 | |
| Fathers' Education | | | .03 | .00 | .00 | |
| GPA | | | -1.44 | -.09 | -.08 | |
| Step II | 179.71** | 1, 280 | | | | .37 |
| Life Events | | | 13.41** | .63 | .62 | |
| Step III | 8.32** | 8, 272 | | | | .12 |
| Extraversion | | | -1.79 | -.08 | -.11 | |
| Conscientiousness | | | -3.46* | -.16 | -.20 | |
| Agreeableness | | | .32 | .02 | .01 | |
| Neuroticism | | | 5.57** | .27 | .32 | |
| Openness / Intellect | | | -3.00** | -.15 | -.18 | |
| Negative Valence | | | -.51 | -.03 | -.03 | |
| Commitment | | | 1.39 | .07 | .08 | |
| Control | | | .08 | .00 | .01 | |
| Step IV | 8.56** | 5, 267 | | | | .065 |
| Problem Focused Coping | | | .10 | .01 | .01 | |
| Religious Coping | | | 1.45 | .08 | .09 | |
| Seeking Social Support | | | -1.02 | .05 | -.06 | |
| Self Blame / Helplessness | | | 6.00** | .32 | .34 | |
| Disacting / Avoidance | | | -.69 | -.03 | -.04 | |

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

At the final step, after the entrance of coping styles into the regression analysis, consciousness ($\beta$ = -.13), neuroticism ($\beta$ = .21), and openness / intellect remained ($\beta$ = -.12) significant. However a decrease in the $\beta$ values for these variables was observed indicating the probability of a mediational relationship.

**3.2.4.1. 2 Negative Affect**

Second hierarchical regression analysis was conducted on Negative Affect scores. The results, as summarized in Table 13, showed that the total variance explained by all the variables in Negative Affect scores was 48 %, $R$ = .693. At the first step control variables made a significant contribution to Negative Affect scores of the participants ($R^2$ = .03, $F\Delta$ (4, 281) = 2.50, $p$ < .001). Life event score was entered into the equation at the second step and explained 23% of the total variance ($F\Delta$ (1, 280) = 89.80, $p$ < .001). When personality variables were entered in the equation at the third step, 15 % of the total variance was explained ($R^2$ change = .15, $F\Delta$ (8, 272) = 8.66, $p$ < .001). T-test results for conscientiousness ($t$ (284) = 2.52, $p$ < .001), neuroticism ($t$ (284) = 6.49, $p$ < .001), and commitment ($t$ (284) = 2.47, $p$ < .001) were significant for this step. At the last step coping styles contributed a further 6.1 % of the variance in Negative affect scores ($R^2$ change = .061, $F\Delta$ (5, 267) = 6.29, $p$ < .001). T-test result for helplessness/self blame ($t$ (284) = 5.10, $p$ < .001 was significant at this step.

At the last step, after the entrance of the coping styles into the equation neuroticism ($\beta$ = .29) and commitment ($\beta$ = .11) remained significant. At this step, $\beta$ value for neuroticism decreased and conscientiousness was no more significant which indicates a possible mediational relationship.

69

Table 13. Hierarchical Regression Analysis on Negative Affect

| Variables in set | F change | df | t (for set) | β | pr | R² |
|---|---|---|---|---|---|---|
| Step I | 2.50* | 4, 281 | | | | .03 |
| Sex | | | 1.18 | .07 | .07 | |
| Mothers' Education | | | -1.43 | -.12 | -.09 | |
| Fathers' Education | | | -.01 | -.00 | -.00 | |
| GPA | | | -2.15* | -.13 | -.12 | |
| Step II | 89.80** | 1, 280 | | | | .23 |
| Life Events | | | 9.48** | .50 | .49 | |
| Step III | 8.66** | 8, 272 | | | | .15 |
| Extraversion | | | -.88 | -.05 | -.05 | |
| Conscientiousness | | | 2.52* | .13 | .15 | |
| Agreeableness | | | 1.07 | .06 | .06 | |
| Neuroticism | | | 6.49** | .34 | .36 | |
| Openness / Intellect | | | -.72 | -.04 | -.04 | |
| Negative Valence | | | .92 | .05 | .06 | |
| Commitment | | | 2.47* | .14 | .15 | |
| Control | | | -.86 | -.05 | -.05 | |
| Step IV | 6.28** | 5, 267 | | | | .061 |
| Problem Focused Coping | | | -.08 | -.01 | -.00 | |
| Religious Coping | | | 1.27 | -.07 | .08 | |
| Seeking Social Support | | | -1.71 | -.09 | -.10 | |
| Self Blame / Helplessness | | | 5.10** | .31 | .29 | |
| Disacting / Avoidance | | | -1.35 | -.08 | -.08 | |

*p<.05      ** p<.001

### 3.2.4.1.3 Social Emotional Quality of Life

The fourth hierarchical regression analysis was conducted on Social/Emotional Quality of Life scores. The results, showed that the total variance explained by all variables in Social/Emotional Quality of Life scores was 48 %, $R = .703$. as shown in Table 14, at the first step control variables made a significant contribution to Social Quality of Life scores of the participants ($R^2 = .03$, $F\Delta (4, 281) = 3.35$, $p < .001$). Life events inventory score was entered the equation at the second step and explained 28% of the total variance ($F\Delta (1, 280) = 110.56$, $p < .001$). When personality variables were entered in the equation at the third step, 13% of the total

variance was explained ($R^2$ change = .13, $F\Delta$ (8, 272) = 8.29, $p$ < .001). T-test results for neuroticism ($t$ (284) = -4.04, $p$ < .001), negative valence ($t$ (284) = 2.60, $p$ < .001), and commitment ($t$ (284) = -5.06, $p$ < .001) were found to be significant. At the last step coping styles contributed a further 4.4 % of the variance in Social Quality of Life scores ($R^2$ change = .044, $F\Delta$ (5, 267) = 4.67, $p$ < .001). T-test result for helplessness / self blame (t (284) = -4.48, p < .001) was significant at this step. Results of the hierarchical regression analyses for social/emotional quality of life are presented in Table 14. At the final step neuroticism ($\beta$ = -.19), negative valence ($\beta$ = -.13), and commitment ($\beta$ = -.22) remained significant. A decrease was observed in the $\beta$ value for neuroticism indicating a possible mediational relationship.

Table 14. Hierarchical Regression Analysis for Social/Emotional Quality of Life

| Variables in set | F change | df | t ( for set ) | β | pr | R² |
|---|---|---|---|---|---|---|
| Step I | 3.35* | 4, 281 | | | | |
| Sex | | | 1.10 | .06 | .07 | |
| Mothers' Education | | | 1.48 | .12 | .08 | .03 |
| Fathers' Education | | | .15 | .01 | .01 | |
| GPA | | | 2.39* | .14 | .14 | |
| Step II | 110.56** | 1, 280 | | | | .28 |
| Life Events | | | -10.52** | -.54 | -.53 | |
| Step III | 8.29** | 8, 272 | | | | .13 |
| Extraversion | | | .52 | .02 | .03 | |
| Conscientiousness | | | -.13 | -.01 | -.01 | |
| Agreeableness | | | .51 | .02 | .03 | |
| Neuroticism | | | -4.04** | -.22 | -.24 | |
| Openness / Intellect | | | 1.59 | .08 | .10 | |
| Negative Valence | | | 2.60* | .14 | .12 | |
| Commitment | | | -5.06** | -.27 | -.29 | |
| Control | | | -.07 | -.00 | -.00 | |
| Step IV | 4.67** | 5, 267 | | | | .044 |
| Problem Focused Coping | | | .34 | .02 | .02 | |
| Religious Coping | | | -.05 | -.00 | -.00 | |
| Seeking Social Support | | | .71 | .03 | .04 | |
| Self Blame / Helplessness | | | -4.48** | -.27 | -.26 | |
| Disacting / Avoidance | | | 1.67 | .10 | .10 | |

*p<.05     ** p<.001

**3.2.4.1.4 Physical Quality of Life**

The fifth hierarchical regression analysis was conducted on Physical Quality of Life scores. Results of the regression analysis are shown in Table 15. The results showed that the total variance explained by all variables in Physical Quality of Life scores was 32 %, $R = .555$. At the first step control variables were shown to make a significant contribution to Physical Quality of Life scores of the participants ($R^2 = .06$, $F\Delta$ $(4, 281) = 4.21$, $p < .001$). Life events inventory score was entered the equation at the second step and explained 20% of the total variance ($F\Delta$ $(1, 280) = 77.62$, $p < .001$). When personality variables were entered in the equation at the third step, 4% of the total variance was explained ($R^2$ change $= .04$, $F\Delta$ $(8, 272) = 18.57$, $p < .001$). T-test results for control ($t$ $(285) = 3.07$, $p < .001$) was significant at this step. At the last step coping styles contributed a further 1.2 % of the variance in Physical Quality of Life scores ($R^2$ change $= .012$, $F\Delta$ $(5, 267) = 16.82$, $p < .05$). T-test result for problem focused coping ($t$ $(285) = 2.18$, $p < .001$) was significant at this step.

At the final step, control ($\beta = .11$) remained significant. However, a decrease in the $\beta$ valued for control was observed which might be an indicator of a possible mediational relationship.

Table 15. Hierarchical Regression analysis for Physical Quality of Life

| Variables in set | F change | df | t (for set) | β | pr | R² |
|---|---|---|---|---|---|---|
| Step I | 4.21* | 4, 281 | | | | .06 |
| Sex | | | 1.15 | .07 | .06 | |
| Mothers' Education | | | 1.11 | .08 | .06 | |
| Fathers' Education | | | 1.64 | .13 | .09 | |
| GPA | | | 1.72 | .10 | .10 | |
| Step II | 77.62** | 1, 280 | -8.81** | | | .20 |
| Life Events | | | | -.47 | -.46 | |
| Step III | 18.57* | 8, 272 | | | | .04 |
| Extraversion | | | -.17 | -.01 | -.01 | |
| Conscientiousness | | | .76 | .21 | .21 | |
| Agreeableness | | | .88 | .06 | .05 | |
| Neuroticism | | | .16 | .01 | .01 | |
| Openness / Intellect | | | 1.23 | .32 | .29 | |
| Negative Valence | | | 1.30 | .08 | .07 | |
| Commitment | | | -.22 | -.20 | -.19 | |
| Control | | | 3.07** | .17 | -.18 | |
| Step IV | 16.82 | 5, 267 | | | | .012 |
| Problem Focused Coping | | | 2.18** | .11 | .13 | |
| Religious Coping | | | 1.55 | .10 | .10 | |
| Seeking Social Support | | | -.24 | -.01 | -.02 | |
| Self Blame / Helplessness | | | -.85 | -.06 | -.05 | |
| Disacting / Avoidance | | | -1.83 | -.13 | -.11 | |

*p<.05    ** p<.001

### 3.2.4.1.5 Self Esteem

Last hierarchical regression analysis was conducted on self esteem scores. The results, as summarized in Table 16, showed that the total variance explained by all these variables in self esteem scores was 56 %, $R = .749$. At the first step control variables made a significant contribution to psychological symptoms of the participants ($R^2 = .04$, $F\Delta$ (4, 281) = 2.52, $p < .001$). Life events inventory score was entered the equation at the second step and explained 20% of the total variance ($F\Delta$ (1,280) = 57.75, $p < .001$). When personality variables were entered in the equation at the third step, 28% of the total variance was explained ($R^2$ change = .28, $F\Delta$

(8,272) = 19.06, *p* < .001). T-test results for extraversion (*t* (285) = 2.10, *p* < .001), conscientiousness (*t* (285) = 3.13, *p* < .001), openness / intellect (*t* (285) = 7.33, *p* < .001), and control (*t* (285) = 2.49, *p* < .001) were significant for this step. At the fourth step coping styles contributed a further 7.3 % of the variance in BSI scores (*R²* change = .073, *FΔ* (5,267) = 8.78, *p* < .001). T-test results for helplessness / self blame (*t* (283) = 2.12, *p* < .001) and problem focused coping (*t* (285) = -6.04, *p* < .001) were significant at this step.

At the final step conscientiousness (*ß* =.12) and openness / intellect (*ß* =.28) remained significant. However, a decrease in the *ß* values for these variables was observed. On the other hand extraversion and control were no more significant indicating a strong likelihood of a mediational relationship.

Table 16. Hierarchical Regression Analysis for Self Esteem

| Variables in set | F change | df | t (for set) | β | pr | R² |
|---|---|---|---|---|---|---|
| Step I | 2.52* | 4, 281 | | | | .04 |
| Sex | | | -1.24 | -.07 | -.07 | |
| Mothers' Education | | | 1.54 | .12 | .10 | |
| Fathers' Education | | | -1.13 | -.01 | -.01 | |
| GPA | | | 2.15* | .13 | .12 | |
| Step II | 57.76** | 1, 280 | | | | .20 |
| Life Events | | | -7.60** | -.42 | -.41 | |
| Step III | 19.06** | 8, 272 | | | | .28 |
| Extraversion | | | 2.10* | .10 | .12 | |
| Conscientiousness | | | 3.13* | .16 | .18 | |
| Agreeableness | | | -.34 | -.01 | -.02 | |
| Neuroticism | | | -1.41 | -.07 | -.08 | |
| Openness / Intellect | | | 7.33** | .39 | .41 | |
| Negative Valence | | | -.57 | -.03 | -.03 | |
| Commitment | | | -1.38 | -.07 | -.08 | |
| Control | | | 2.49* | .13 | .15 | |
| Step IV | 8.78** | 5, 267 | | | | .073 |
| Problem Focused Coping | | | 2.12* | .12 | .13 | |
| Religious Coping | | | 1.03 | .05 | .06 | |
| Seeking Social Support | | | 1.29 | .11 | .14 | |
| Self Blame / Helplessness | | | -6.05** | -.33 | -.35 | |
| Disacting / Avoidance | | | .33 | .01 | .02 | |

*p<.05        ** p<.001

### 3.2.4.1.6 Positive Affect

The third hierarchical regression analysis was run on Positive Affect scores. The results, as displayed in Table 17, showed that the total variance explained by all variables in Positive Affect scores was 32 %, $R = .556$. At the first step control variables made a significant contribution to Positive Affect scores of the participants ($R^2 = .04$, $F\Delta$ (4, 280) = 2.72, $p < .001$). Life events inventory score was entered into the equation at the second step and did not make a significant contribution ($F\Delta$ (1, 280) = 2.23, $p > .001$). When personality variables were entered into the equation at the third step, 20% of the total variance was explained ($R^2$ change = .20, $F\Delta$ (8, 272) = 11.12, $p < .001$). T-test results for conscientiousness (t (284) = 3.46, p < .001), openness/intellect ($t$ (284) = 4.99, $p < .001$), and commitment ($t$ (284) = -3.22, $p < .001$) were significant at this step. At the fourth step coping styles contributed 4.4 % of the variance, in Positive affect scores ($R^2$ change = .044, $F\Delta$ (5, 267) = 6.95, $p < .001$). T-test result for problem focused coping ($t$ (284) = 3.99, $p < .001$) was significant at this step.

At the final step conscientiousness ($\beta = -.17$), commitment ($\beta = -.19$), and openness / intellect ($\beta = -.25$) remained significant. However a decrease in the β values for these variables was observed. The decrease in the $\beta$ values might be indicating a mediational relationship.

Table 17. Hierarchical Regression Results for Positive Affect

| Variables in set | F change | df | T (for set) | β | pr | R² |
|---|---|---|---|---|---|---|
| Step I | 2.72* | 4, 281 | | | | .04 |
| Sex | | | .36 | .02 | .02 | |
| Mothers' Education | | | -.53 | -.04 | -.03 | |
| Fathers' Education | | | -1.22 | -.09 | -.07 | |
| GPA | | | 2.28* | -.14 | .13 | |
| Step II | .29 | 1, 280 | | | | .04 |
| Life Events | | | -.54 | -.03 | -.03 | |
| Step III | 11.13** | 8, 272 | | | | .20 |
| Extraversion | | | -.17 | -.01 | -.01 | |
| Conscientiousness | | | 3.46** | .21 | .21 | |
| Agreeableness | | | .88 | .06 | .05 | |
| Neuroticism | | | .16 | .01 | .01 | |
| Openness / Intellect | | | 4.99** | .32 | .29 | |
| Negative Valence | | | 1.30 | .08 | .07 | |
| Commitment | | | 3.22** | .20 | .19 | |
| Control | | | -.11 | -.01 | -.01 | |
| Step IV | 3.42* | 5, 267 | | | | .044 |
| Problem Focused Coping | | | 3.99** | .29 | .24 | |
| Religious Coping | | | 1.55 | .10 | .10 | |
| Seeking Social Support | | | -.24 | -.01 | -.02 | |
| Self Blame / Helplessness | | | -.85 | -.06 | -.05 | |
| Disacting / Avoidance | | | -1.83 | -.13 | -.11 | |

*p<.05        ** p<.001

### 3.2.4.1.7 Summary of the Regression Analyses for Part I

Results of the six hierarchical regression analyses are summarized in Table 18. Results indicate the problem focused coping and helplessness/self blame are the two coping styles to be included in the mediation analyses. According to the results of Part I, extraversion, conscientiousness, openness/intellect, negative valence, commitment, and control will be considered as personality variables.

Table 18. Multiple Regression Result Summaries for Step I

|  | PERSONALITY VARIABLES | COPING STYLES | DEPENDENT VARIABLE |
|---|---|---|---|
| REGRESSION I | Conscientiousness Neuroticism Openness / Intellect | Helplessness/Self Blame | Brief Symptom Inventory Scores |
| REGRESSION II | Conscientiousness Neuroticism Commitment | Haplessness/Self Blame | Negative Affect Scores |
| REGRESSION III | Neuroticism Negative Valence Commitment | Helplessness/Self Blame | Social / Emotional Quality of Life Scores |
| REGRESSION IV | Control | Problem Focused Coping | Physical Quality of Life Scores |
| REGRESSION V | Extraversion Conscientiousness Openness / Intellect Control | Problem Focused Coping Helplessness/Self Blame | Self Esteem Scores |
| REGRESSION VI | Conscientiousness Openness / Intellect Commitment | Problem Focused Coping | Positive Affect Scores |

### 3.2.4.2 Part II: Predicting the Mediators

Results of the regression analysis conducted on Step I showed that only problem focused coping and helplessness/self blame had a significant predictor role on adjustment among other coping styles. In order to be able to conduct mediation analysis and find out which personality variables predict these coping styles, two hierarchical regression analyses were conducted. Problem focused coping and helplessness/self blame were identified as the dependent variables. For both hierarchical regressions at the first step gender, parent's education, and GPA were entered as control variables. At the second step Life Events Inventory scores were added into the equation as the stress factor. At the third step subscales extraversion,

conscientiousness, neuroticism, openness/intellect, negative valence, commitment, and control were entered as personality variables.

### 3.2.4.2.1 Problem Focused Coping

The results of the hierarchical regression analysis conducted on problem focused coping showed that the total variance explained by all variables was 43 %, R = .649. As shown in Table 19, control variables did not make a significant contribution to problem focused coping ($R^2 = .02$, $F\Delta$ (4, 281) = 1.30, $p > .001$). Life events inventory was entered into the equation at the second step and explained 4% of the total variance ($F\Delta$ (1,280) = 11.89, $p < .001$). Personality variables contributed for 37% of the variance ($R^2$ change = .37, $F\Delta$ (8, 272) = 22.34, $p < .001$). T-test results for extraversion ($t$ (283) = 2.39, $p < .001$), neuroticism ($t$ (283) = -2.06, $p < .001$), openness / intellect ($t$ (283) = 3.16, $p < .001$), commitment ($t$ (283) = -6.73, $p < .001$), and control ($t$ (283) = 2.14, $p < .001$), were significant at this step.

Table 19. Hierarchical Regression Analysis for Problem Focused Coping

| Variables in set | F change | df | t (for set) | β | pr | R² |
|---|---|---|---|---|---|---|
| Step I | 1.30 | 4, 281 | | | | .02 |
| Sex | | | 1.15 | .07 | .06 | |
| Mothers' Education | | | .38 | .03 | .02 | |
| Fathers' Education | | | -1.05 | -.08 | -.06 | |
| GPA | | | 1.26 | .07 | .07 | |
| Step II | 11.89** | 1, 280 | | | | .04 |
| Life Events | | | -3.45** | -.21 | -.20 | |
| Step III | 22.34** | 8, 272 | | | | .37 |
| Extraversion | | | 2.39* | .10 | .11 | |
| Conscientiousness | | | 1.52 | .08 | .09 | |
| Agreeableness | | | 1.93 | .11 | .12 | |
| Neuroticism | | | -2.06** | -.18 | -.20 | |
| Openness / Intellect | | | 3.16* | .16 | .17 | |
| Negative Valence | | | -.86 | -.04 | -.05 | |
| Commitment | | | -6.73** | -.35 | -.36 | |
| Control | | | 3.72* | .14 | .10 | |

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

### 3.2.4.2.2 Helplessness/Self Blame

The results of the hierarchical regression analysis as presented in Table 20, showed that the total variance explained by all variables was 42 %, $R = .620$. At the first step control variables did not make a significant contribution to helplessness / self blame ($R^2 = .02$, F$\Delta$ (4, 281) = 1.69, $p < .001$). Stress variable was entered the equation at the second step and explained for 23% of the total variance ($F\Delta$ (1,280) = 72.67, $p < .001$). Personality variables contributed a further 19% of the variance ($R^2$ change = .19, $F\Delta$ (8, 272) = 11.63, $p < .001$). T-test results for extraversion ($t$ (283) = -3.34, $p < .001$), conscientiousness ($t$ (283) = -2.26, $p < .001$), neuroticism ($t$ (283) = 2.76, $p < .001$), openness / intellect ($t$ (283) = -3.94, $p < .001$), and control ($t$ (283) = -3.46, $p < .001$) were significant at this step.

Table 20. Hierarchical Regression Analysis for Helplessness / self blame

| Variables in set | F change | df | t | β | pr | model R² |
|---|---|---|---|---|---|---|
| Step I | | 4, 281 | | | | |
| Sex | | | -2.15* | -.13 | -.13 | |
| Mothers' Education | 1.69 | | -.30 | -.02 | -.01 | .02 |
| Fathers' Education | | | -.25 | -.02 | -.01 | |
| GPA | | | -.88 | -.05 | -.05 | |
| Step II | 72.67** | 1, 280 | | | | .23 |
| Life Events | | | 8.52** | .47 | .45 | |
| Step III | | 8, 272 | | | | |
| Extraversion | | | -3.34** | -.18 | -.19 | |
| Conscientiousness | | | -2.26* | -.12 | -.14 | |
| Agreeableness | | | 3.09* | .18 | .18 | |
| Neuroticism | 11.63** | | 2.76* | .15 | .16 | .42 |
| Openness / Intellect | | | -3.94** | -.22 | -.23 | |
| Negative Valence | | | -.15 | -.01 | -.01 | |
| Commitment | | | 1.40 | .07 | .09 | |
| Control | | | -3.46** | -.18 | -.21 | |

*p<.05      ** p<.001

**3.2.4.2.3 Summary of Regression Analyses for Part II**

Summary of the hierarchical regression analyses on coping styles are presented in Table 21. Extraversion, neuroticism, openness/intellect, commitment, and control were found to predict problem focused coping; whereas extraversion, conscientiousness, neuroticism, openness/intellect, and control were found to predict helplessness/self blame.

Table 21. Regression Result Summaries for Part II

|  | PERSONALITY VARIABLES | DEPENDENT VARIABLE |
|---|---|---|
| REGRESSION I | Extraversion<br>Neuroticism<br>Openness / Intellect<br>Commitment<br>Control | Problem Focused Coping |
| REGRESSION II | Extraversion<br>Conscientiousness<br>Neuroticism<br>Openness / Intellect<br>Control | Helplessness / Self Blame |

**3.2.4.3 Mediation Testing**

According to the overall results of the hierarchical regression analysis in Part I and Part II, a series of paths were formulated for the mediator role of Coping Styles between personality variables and adjustment outcome. Paths to be tested are demonstrated on Table 22.

Table 22. Formulated Paths According to the Hierarchical Regression Results

|  | PERSONALITY VARIABLES | MEDIATOR (COPING) | ADJUSTMENT OUTCOME |
|---|---|---|---|
| PATH I | Conscientiousness Neuroticism Openness / Intellect | Helplessness / Self Blame | Brief Symptom Inventory Scores |
| PATH II | Conscientiousness Neuroticism Commitment | Haplessness / Self Blame | Negative Affect Scores |
| PATH III | Neuroticism Commitment | Helplessness / Self Blame | Social / Emotional Quality of Life Scores |
| PATH IV | Control | Problem Focused Coping | Physical Quality of Life Scores |
| PATH V | Extraversion Conscientiousness Openness / Intellect Control | Helplessness / Self Blame | Self Esteem Scores |
| PATH VI | Extraversion Conscientiousness Openness / Intellect Control | Problem Focused Coping | Self Esteem Scores |
| PATH VII | Conscientiousness Openness / Intellect Commitment | Problem Focused Coping | Positive Affect Scores |

In this section, details of the path analyses are displayed. The above paths were tested with mediation analysis. The results of the mediation analysis showed that the following relationships were significant.

1. Mediator role of helplessness between Personality variables (conscientiousness, neuroticism and openness/intellect) and BSI scores

2. Mediator role of helplessness between Personality variables (conscientiousness and neuroticism) and Negative Affect

3. Mediator role of problem focused coping between Personality variables (openness/intellect and commitment) and Positive Affect

4. Mediator role of helplessness between Personality variables (neuroticism) and Social Quality of Life

5. Mediator role of problem focused coping between Personality variables (control) and Physical Quality of Life

6. Mediator role of helplessness between Personality variables (extraversion, conscientiousness, openness/intellect, and control) and Self Esteem

7. Mediator role of problem focused coping between Personality variables (extraversion, openness/intellect, and control) and Self Esteem.

### 3.2.4.3.1 Mediation Analysis for Brief Symptom Inventory

Mediator role of helplessness / self blame between personality variables and Brief Symptom Inventory scores was tested through hierarchical regression analysis as depicted on Figure 1, after controlling for sex, parents' education, GPA, and stress.



Figure 1. Mediator Role of Helplessness /self blame on BSI

The results showed that the entrance of helplessness/self blame in the equation at the fourth step decreased the β values all for Conscientiousness (-.11), neuroticism (.23) and openness/intellect (-.11) as shown on Table 23. Sobel test (http://people.ku.edu/~preacher/sobel/sobel.htm) was conducted for the significance of *β* decrease. Test results were found to be significant for the paths starting with conscientiousness ($z$ = -2.62, $p<.05$), neuroticism ($z$ = 3.23, $p<.05$) and openness/intellect ($z$ = -2.88, $p<.05$).

Table 23. Mediator effect of helplessness / self flame on BSI

| Variables in set (BSI) | F change | df | t | β | pr | model R² |
|---|---|---|---|---|---|---|
| Step I | 3.34* | 4, 289 | | | | .04 |
| Sex | | | .37 | .02 | .02 | |
| Mother's Education | | | -2.31* | -.18 | -.13 | |
| Father's Education | | | .06 | .00 | .00 | |
| GPA | | | -1.67 | -.09 | -.09 | |
| Step II | 189.17** | 1, 288 | | | | .42 |
| Life Events | | | 13.75** | .63 | .63 | |
| Step III | 20.86** | 3, 285 | | | | .53 |
| Conscientiousness | | | -3.18* | -.14 | -.18 | |
| Neuroticism | | | 6.19** | .28 | .34 | |
| Openness / Intellect | | | -4.44** | -.19 | -.25 | |
| Step IV | 39.74** | 1, 284 | | | | .59 |
| Helplessness / self blame | | | 6.30** | .20 | .35 | |
| Conscientiousness | | | -4.29** | -.11 | -.12 | |
| Neuroticism | | | 5.37** | .23 | .30 | |
| Openness / Intellect | | | -2.67* | -.11 | -.15 | |

*p<.05        ** p<.001

**3.2.4.3.2 Mediation Analysis for Negative Affect**

Mediator role of helplessness/self blame between personality variables and Negative Affect was tested through hierarchical regression analysis as depicted on Figure 2, after controlling for sex, parents' education, GPA, and stress.
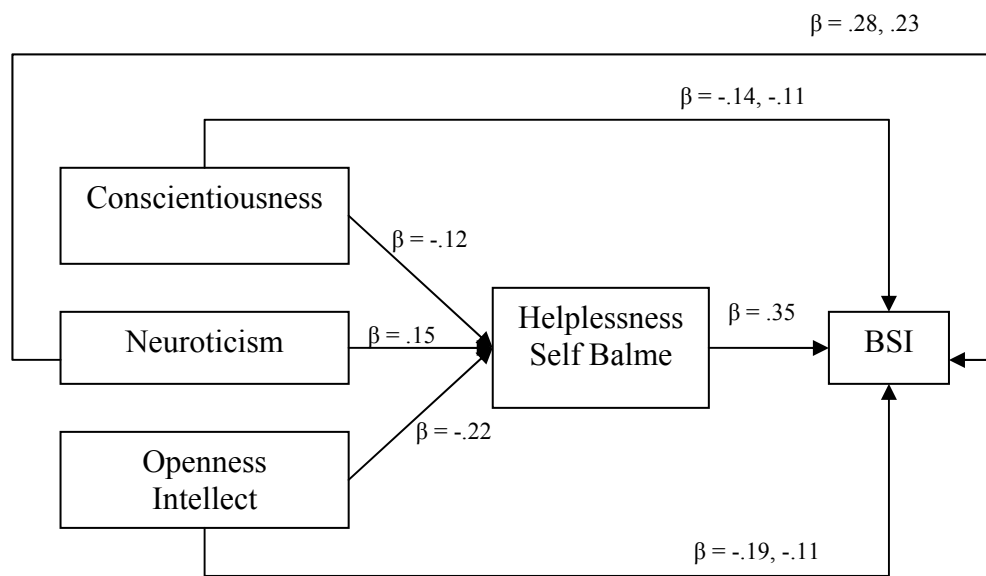


Figure 2. Mediator Role of Helplessness on Negative Affect

The results showed that when helplessness/self blame was entered in the equation at the fourth step, $\beta$ values both for neuroticism (.31) and conscientiousness (-.06) decreased as summarized on Table 24. Sobel test (http://people.ku.edu/~preacher/sobel/sobel.htm) was conducted for the significance of $\beta$ decrease. Results were found to be significant for the path starting from neuroticism ($z = 3.13$, $p<.05$), whereas helplessness was a full mediator between conscientiousness and negative affect.

Table 24. Mediator effect of helplessness / self flame on Negative Affect

| Variables in set (BSI) | F change | df | t | B | pr | Model R² |
|---|---|---|---|---|---|---|
| Step I | 2.50* | 4, 280 | | | | .03 |
| Sex | | | 1.18 | .07 | .07 | |
| Mother's Education | | | -1.43 | -.12 | -.08 | |
| Father's Education | | | -.04 | -.00 | -.00 | |
| GPA | | | -2.15* | -.13 | -.12 | |
| Step II | 89.80** | 1, 279 | | | | .27 |
| Life Events | | | 9.47** | .50 | .49 | |
| Step III | 28.60** | 2, 277 | | | | .40 |
| Conscientiousness | | | -2.30* | -.12 | -.11 | |
| Neuroticism | | | 6.91** | .35 | .23 | |
| Step IV | 25.05** | 1, 276 | | | | .45 |
| Helplessness / self blame | | | 5.00** | .26 | .22 | |
| Conscientiousness | | | -1.27 | -.06 | -.05 | |
| Neuroticism | | | 6.31** | .31 | .28 | |

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

### 3.2.4.3.3 Mediation Analysis for Social Emotional Quality of Life

Mediator role of helplessness/self blame between neuroticism and Social Emotional Quality of Life was tested through hierarchical regression analysis as seen on Figure 3, after controlling for sex, parents' education, GPA, and stress.
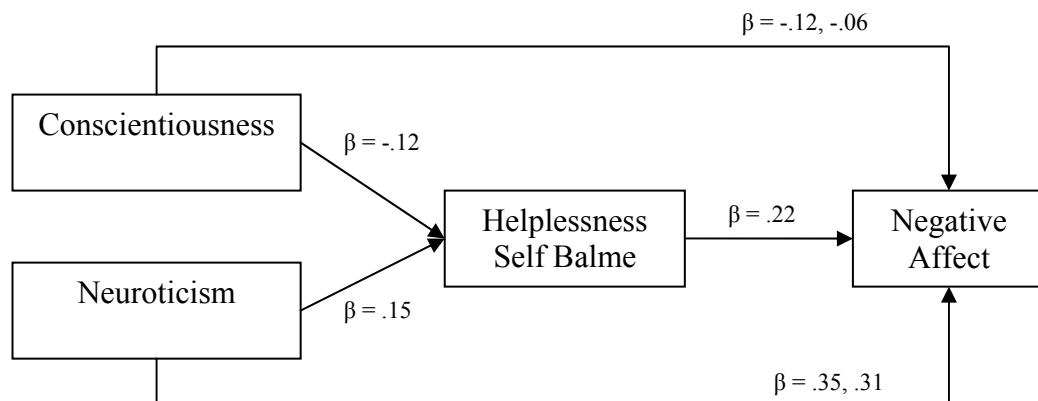
Figure 3. Mediator Role of Helplessness / Self Blame on Social Quality of Life

As summarized on Table 25 the results showed that when helplessness / self blame was entered in the equation at the fourth step, $\beta$ value for neuroticism (-.13) decreased. Sobel test (http://people.ku.edu/~preacher/sobel/sobel.htm) was conducted for the significance of $\beta$ decrease and the results indicated partial mediation ($z$ = -4.31, $p$<.001).

Table 25. Mediator effect of helplessness / self flame on Social Quality of Life

| Variables in set (BSI) | F change | df | t | β | pr | model R² |
|---|---|---|---|---|---|---|
| Step I | 3.36* | 4, 281 | | | | .04 |
| Sex | | | 1.10 | .06 | .06 | |
| Mother's Education | | | 1.48 | .12 | .08 | |
| Father's Education | | | .15 | .01 | .00 | |
| GPA | | | 2.39** | .14 | .14 | |
| Step II | 110.56** | 1, 280 | | | | .32 |
| Life Events | | | -10.51** | -.54 | -.53 | |
| Step III | 27.26** | 2, 278 | | | | .42 |
| Neuroticism | | | -3.32** | -.16 | -.15 | |
| Step IV | 19.43** | 1, 277 | | | | .46 |
| Helplessness / Self esteem | | | -4.41** | -.23 | -.19 | |
| Neuroticism | | | -2.68* | -.13 | -.12 | |

*p*<.05        ** *p*<.001

### 3.2.4.3.4 Mediation Analysis for Physical Quality of Life

Mediator role of problem focused coping between control and Physical Quality of Life was tested through hierarchical regression analysis as summarized on

Figure 4, after controlling for sex, parents' education, GPA, and stress.
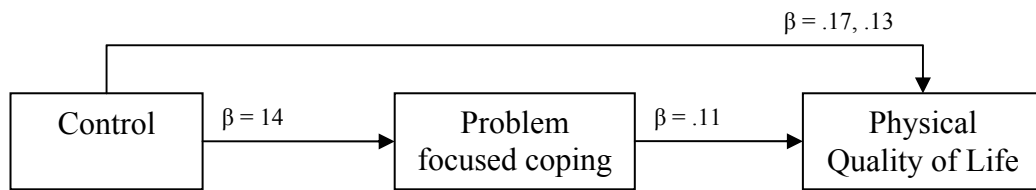


Figure 4. Mediator Role of Problem Focused Coping on Physical Quality of Life

According to the results as displayed on Table 26, the entrance of problem focused coping in the equation at the fourth step, decreased the $\beta$ value for control (.13). Sobel test (http://people.ku.edu/~preacher/sobel/sobel.htm) was conducted for the significance of $\beta$ decrease and the results indicated partial mediation ($z = 3.46$, $p<.05$).

Table 26. Mediator effect of problem focused coping on Physical Quality of Life

| Variables in set (BSI) | F change | df | t | β | Pr | model R² |
|---|---|---|---|---|---|---|
| Step I | 4.21* | 4, 281 | | | | .05 |
| Sex | | | 1.15 | .07 | .06 | |
| Mother's Education | | | 1.11 | .09 | .06 | |
| Father's Education | | | 1.65 | .13 | .09 | |
| GPA | | | 1.73 | .10 | .10 | |
| Step II | 77.62** | 1, 280 | | | | .26 |
| Life Events | | | -8.81** | -.47 | -.46 | |
| Step III | 9.43* | 1, 179 | | | | .29 |
| Control | | | 3.07* | .17 | .18 | |
| Step IV | 4.77* | 1, 278 | | | | .30 |
| Problem focused coping | | | 2.18* | .11 | .13 | |
| Control | | | 2.31* | .13 | .14 | |

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

### 3.2.4.3.5 Mediation Analysis for Self Esteem (Helplessness / Self Blame)

Mediator role of helplessness/self blame between personality variables and Self Esteem was tested through hierarchical regression analysis as seen on Figure 5, after controlling for sex, parents' education, GPA, and stress.
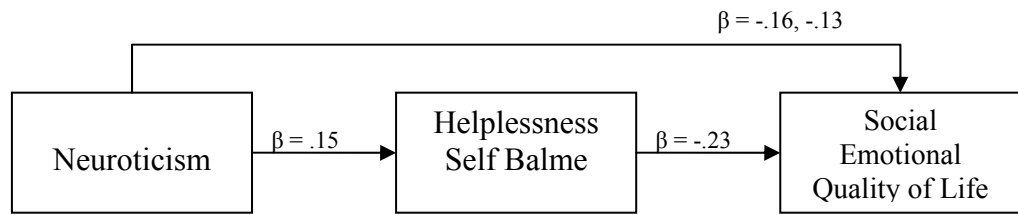


Figure 5. Mediator Role of Helplessness / Self Blame on Self Esteem

The results showed that the entrance of helplessness/self blame into the equation at the fourth step decreased the $\beta$ values for extraversion (.07), conscientiousness (.13), openness/intellect (.39), and control (.11) as shown on Table 27. Sobel test (http://people.ku.edu/~preacher/sobel/sobel.htm) was conducted for each path separately for the significance of $\beta$ decrease. The results indicated full mediation for Extraversion and Control; partial mediation for the paths starting with Conscientiousness ($z = 3.25$, $p<.05$) and openness / intellect ($z = 2.97$, $p<.05$).

Table 27. Mediator effect of helplessness / self blame on Self Esteem

| Variables in set (BSI) | F change | Df | t | β | pr | model R² |
|---|---|---|---|---|---|---|
| Step I | 2.52* | 4, 279 | | | | .02 |
| Sex | | | -1.24 | -.07 | -.07 | |
| Mother's Education | | | 1.53 | .12 | .09 | |
| Father's Education | | | -.12 | -.01 | -.00 | |
| GPA | | | 2.15* | .13 | 1.12 | |
| Step II | 57.75** | 1, 287 | | | | .18 |
| Life Events | | | -7.60** | -.42 | -.41 | |
| Step III | 36.65** | 4, 274 | | | | .46 |
| Extraversion | | | 2.20* | .11 | .13 | |
| Conscientiousness | | | 3.81** | .18 | .21 | |
| Openness / Intellect | | | 7.82** | .39 | .42 | |
| Control | | | 3.19* | .15 | .18 | |
| Step IV | 31.43** | 1, 273 | | | | .52 |
| Helplessness / self blame | | | -5.60** | -.29 | -.32 | |
| Extraversion | | | 1.28 | .06 | .07 | |
| Conscientiousness | | | 3.19* | .14 | .13 | |
| Openness / Intellect | | | 7.01** | .34 | .39 | |
| Control | | | 1.89 | .09 | .11 | |

*p<.05        ** p<.001

### 3.2.4.3.6 Mediation Analysis for Self Esteem (Problem Focused Coping)

As depicted on Figure 6 mediator role of problem focused coping between personality variables and self esteem was tested with hierarchical regression analysis, after controlling for sex, parents' education, GPA, and stress.
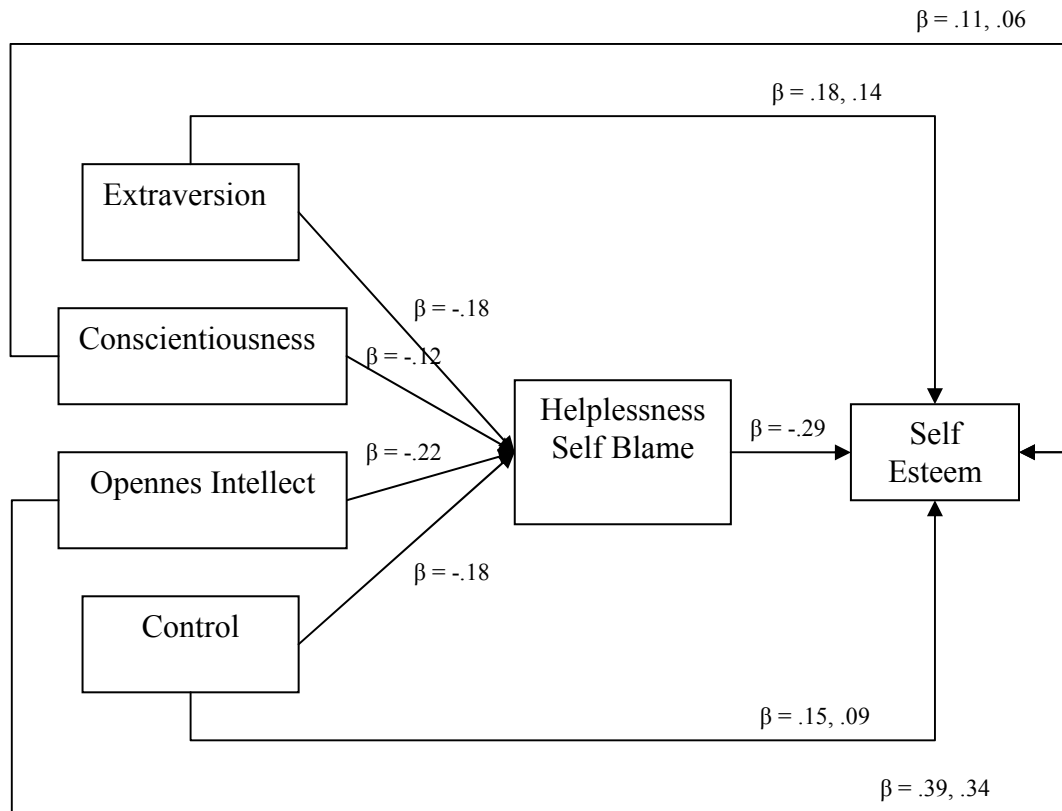


Figure 6. Mediator Role of Problem Focused Coping on Self Esteem

The results showed that the entrance of problem focused coping into the equation at the fourth step, decreased the $\beta$ values for extraversion (.07), openness (.30), and control (.11) as summarized on Table 28. Sobel test (http://people.ku.edu/~preacher/sobel/sobel.htm) was conducted for each path separately for the significance of $\beta$ decrease. The results indicated partial mediation for paths starting with extraversion ($z = 4.01$, $p<.05$), openness/intellect ($z = 2.99$, $p<.05$), and control ($z = 3.45$, $p<.05$).

Table 28. Mediator effect of helplessness / self flame on Self esteem

| Variables in set (BSI) | F change | df | t | β | pr | model R² |
|---|---|---|---|---|---|---|
| Step I | 2.52* | | | | | .03 |
| Sex | | | -1.23 | -.07 | -.07 | |
| Mother's Education | | 4 | 1.53 | .12 | .09 | |
| Father's Education | | 279 | -.13 | -.01 | -.00 | |
| GPA | | | 2.14* | .13 | .12 | |
| Step II | 57.75** | 1 | | | | .20 |
| Life Events | | 278 | -7.60** | -.42 | -.40 | |
| Step III | 36.66** | | | | | .48 |
| Extraversion | | 4 | 2.20* | .11 | .09 | |
| Openness / Intellect | | 274 | 7.83** | .39 | .34 | |
| Control | | | 3.19* | .16 | .13 | |
| Step IV | 8.79* | | | | | .50 |
| Helplessness / self blame | | | 2.97* | .15 | .13 | |
| Extraversion | | 1 | 1.84 | .09 | .07 | |
| Openness / Intellect | | 273 | 6.97** | .36 | .30 | |
| Control | | | 2.52* | .12 | .11 | |

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

**3.2.4.3.7 Mediation Analysis for Positive Affect**

Mediator role of problem focused coping between personality variables and Positive Affect was tested by hierarchical regression analysis. Mediation is formulated and displayed on Figure 7, after controlling for sex, parents' education, GPA, and stress.
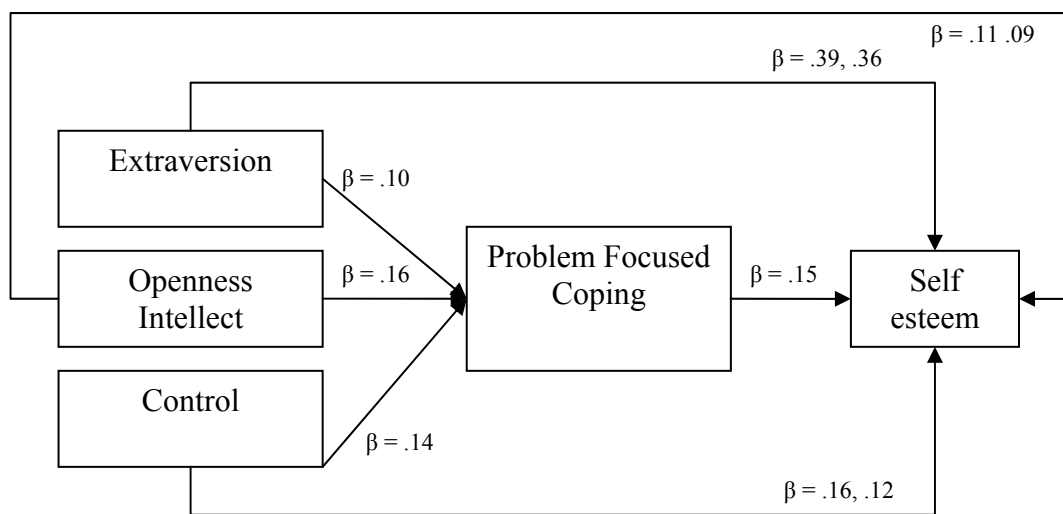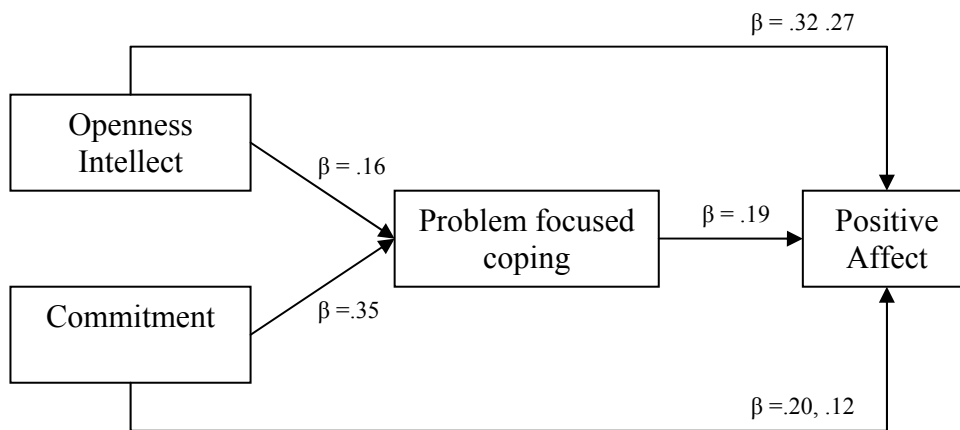
Figure 7. Mediator Role of Problem Focused Coping on Positive Affect.

The results showed that the entrance of problem focused coping in the equation at the fourth step, decreased the β values for openness / intellect (.27) and commitment (.12) as summarized on Table 29. Sobel tests (http://people.ku.edu/~preacher/sobel/sobel.htm) were conducted for the significance of β decrease and the results indicated partial mediation for openness/intellect ($z$ = 4.39, $p$<.001) and commitment ($z$ = 5.08, $p$<.001).

Table 29. Mediator effect of helplessness / self flame on Positive Affect

| Variables in set (BSI) | F change | df | t | B | pr | model R² |
|---|---|---|---|---|---|---|
| Step I | 2.73* | 4, 280 | | | | .03 |
| Sex | | | .36 | .02 | .02 | |
| Mother's Education | | | -.53 | -.04 | -.03 | |
| Father's Education | | | -1.22 | -.09 | -.07 | |
| GPA | | | 2.28* | .14 | .13 | |
| Step II | .29 | 1, 279 | | | | .04 |
| Life Events | | | -.54 | -.03 | -.03 | |
| Step III | 29.18** | 3, 276 | | | | .27 |
| Openness / intellect | | | 5.79** | .32 | .29 | |
| Commitment | | | -3.47** | -.20 | -.18 | |
| Step IV | 9.53* | 1, 275 | | | | .30 |
| Problem focused coping | | | 3.08** | .19 | .15 | |
| Openness / intellect | | | 4.79** | .27 | .24 | |
| Commitment | | | -2.03* | -.12 | -.10 | |

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

**DISCUSSION**

The aim of the main study, as shaped up according to the results of Study I, was to find out predictors of psychological health, well being, quality of life, and self esteem and to investigate the paths leading to adjustment by using basic personality traits, hardiness, and coping as predictors. Coping strategies are expected to mediate the relationship between personality variables and adjustment. In order to meet this purpose seven different mediation analysis were conducted and the results have been laid out on section 3.2. In this section results of the mediation analysis and the factor structure of the indicators of adjustment will be discussed for each indicator of adjustment and the conclusions on the vulnerabilities and the resiliencies for adjustment will be presented and discussed within the framework of literature. Finally limitations of the main study and implications for future research and university counseling services will be presented.

**3.3.1 Indicators of Adjustment**

**3.3.1.1 Psychological Health**

Good psychological health, as defined by the lack of psychological distress has been measured with Brief Symptom Inventory (BSI) in the present study. Three mediation analyses were conducted for the mediator role of helplessness/self blame coping taking conscientiousness, neuroticism, openness/intellect as predictors of adjustment outcome.

According to the results of the mediation analysis, for psychological health, as assessed by BSI helplessness/self blame coping mediated the relationship between conscientiousness and psychological health. Results indicated that higher levels of

conscientiousness predicted psychological health through lowered levels of helplessness/self blame. In other words, conscientiousness led to a decrease in helplessness/self blame which in turn decreased BSI scores. In this sense, conscientiousness appears to be a protector factor through its impact on lowering helplessness, and lower helplessness has a direct effect in decreasing psychological symptoms.

Similarly, openness/intellect also predicted better psychological health through lower levels of helplessness/self blame. On the other hand neuroticism predicted poorer psychological health through the use of helplessness/self blame which can be considered as one of the emotion focused coping styles. Thus, the results showed that conscientiousness and openness are protective personality characteristics. Their protective role is mediated by their effect on helplessness coping. They both lower helplessness which turn reduces symptomatology. On the other hand, neuroticism is vulnerability through its effect on increasing helplessness.

Although hardiness was not a significant predictor of psychological health for the main study, the findings partially support the findings of Beasley, Thompson & Davidson (2003) on the use of coping strategies. These researchers have investigated the mediator role of coping styles between hardiness as a personality variable and psychological well being. Similar to the results of the present study they also found that emotion focused coping mediated the relationship between personality and psychological well being. They argued that when not properly dealt, negative life events directly affect measures of psychological and somatic distress. Emotion-oriented coping has once more been implied for its direct effects in decreasing scores of general and psychological health, irrespective of the occurrence of negative life

events (Sharply & Yardly, 1999).

Other consistent findings have been reported in the literature concerning the effects of coping styles. It was found that with the use of task focused coping, less psychological dysfunction was observed, whilst greater psychological dysfunction occurred with avoidance or emotion-focused coping (e.g. Higgins & Endler, 1995). Supportively, Kobasa (1979) also found that hardiness mitigated the negative effects of stress in relation to illness (Kobasa, 1979) and depression (Nowack, 1989).

The literature point out to the effects of emotion focused coping strategies on the relationship between personality and psychological health. It could be stated that the findings of the present study have turned out to be supporting the adjustment literature on psychological health. Certain personality characteristics are important in determining the type of coping. Thus, personality seems to have an indirect effect on adjustment through its impact on coping strategies.

### 3.3.1.2 Well - Being

Research in the areas of personality, particularly on neuroticism, and the more extended concept of negative affectivity (Watson, 1988; Watson & Clark, 1984; Watson & Keltner, 1989; Watson & Kendall, 1989; Watson & Pennebaker, 1989) seem to suggest that a link between neuroticism and negative affectivity as well as between extraversion, positive affectivity, and adjustment may exist. Similarly, Gomez, Krings, Lausanne, Bangerter and Grob (2008) found in their study that extraversion was a predictor of positive affect in young adults.

Using the same mediation model with the literature two different mediation analyses were conducted for positive affect and negative affect. According to the results of the mediation analysis on negative affect, conscientiousness and

neuroticism predicted negative affect through the use of helplessness/self blame. The results were consistent with the literature and indicated that higher levels of conscientiousness predicted negative affect through lowered levels of helplessness/self blame. In other words, conscientiousness led to a decrease in helplessness/self blame which in turn decreased negative affect scores. In this sense, conscientiousness appears to be a protector factor through its impact on lowering helplessness, and lower helplessness has a direct effect in decreasing negative affect.

On the other hand neuroticism predicted higher negative affect through the use of helplessness/self blame. Thus, the results showed that conscientiousness was a protective personality characteristic and its protective role is mediated by its affect on helplessness coping. Conscientiousness lowers helplessness which turn reduces negative affect. On the other hand, neuroticism is vulnerability through its effect on increasing helplessness.

However, according to the mediation results for positive affect, openness/intellect and commitment, a type of hardiness, predicted positive affect though the use of problem focused coping style. Openness/intellect and commitment predicted higher levels of positive affect through increased levels of problem focused coping. In other words openness/intellect and commitment led to an increase in the use of problem focused coping which in turn increased positive affect scores. Thus, openness/intellect and commitment appear to be resiliencies through their impact on increasing problem focused coping, and higher levels of problem focused coping in increasing positive affect.

Although the relationship between hardiness and well being is a novel one with younger people, there are explanations of hardiness consistent with the use of

95

problem focused coping. Kobasa (1979) define persons as hardy individuals if they (1) believe that they can control or influence events (2), have a commitment to activities and their interpersonal relationships and to self, in that they recognize their own distinctive values, goals and priorities in life, and (3), view change as a challenge rather than as a threat. In the latter regard, they are predisposed to be cognitively flexible and to cope with the challenges of everyday life in more effective and active ways.

As a conclusion the literature point out to the importance of extraversion and neuroticism as predictors of psychological well being. Certain personality characteristics are important in determining the type of coping. Thus, personality seems to have an indirect effect on adjustment through its impact on coping strategies. The findings of the study meet the general consensus on neuroticism as a personality factor; however do not support the role of extraversion for the Turkish university students.

**3.3.1.3 Quality of Life**

The studies on quality of life have mostly focused on optimism as a personality variable (e.g. Scheier, Matthews, and Owens. 1989; Harju & Bolen 1998). Another study on the mediator role of coping styles between optimism and quality of life was conducted by Schou, Ekeberg & Ruland (2005) and the results were similar. They found out that two coping strategies were particularly prominent as mediators: active coping and helpless coping. Optimistic people appeared to respond to greater degree with active coping, which was associated with better global quality of life, meaning satisfaction with life, and functioning. On the other hand, pessimistic people responded with a greater degree of helpless, which was associated

with poorer global quality of life and functioning.

In the present study using the personality traits and hardiness instead of optimism, two separate mediation analyses were conducted for social emotional quality of life and physical quality of life. Similar to the findings in the literature for social/emotional quality of life, neuroticism predicted low social and emotional satisfaction with life through the use of helplessness/self blame. The results indicated that higher levels of conscientiousness predicted negative affect through lowered levels of helplessness/self blame. In other words, conscientiousness led to a decrease in helplessness/self blame which in turn decreased negative affect scores. In this sense, conscientiousness appears to be a protector factor through its impact on lowering helplessness, and lower helplessness has a direct effect in decreasing negative affect.

Similarly, control as a type of hardiness predicted higher levels of physical quality of life with the use of problem focused coping. Control predicted higher levels of positive affect through increased levels of problem focused coping. In other words higher sense of control over events led to an increase in the use of problem focused coping which in turn increased physical quality of life scores. Thus, control appears to be resilience through its impact on increasing problem focused coping, and higher levels of problem focused coping in increasing physical quality of life. Thus, the results showed that control was a protective personality characteristic and its protective role is mediated by its effect on problem focused coping. Control increases problem focused coping which in turn results in better physical health. Supporting this findings, studies on quality of life also indicate that if stress is not dealt with effectively with the use of suitable coping mechanisms, feelings of

nervousness and loneliness, sleeplessness, excessive worrying (Wright, 1967), and negative health behaviors may occur (Guyton et al., 1989; Teuting, Koslow, & Hirschfield, 1981).

The findings of the present study on physical quality of life are consistent with the literature. Certain personality characteristics are important in determining the type of coping. According to the findings of the present study the use of problem focused coping helps enhance physical quality of life of individuals who score high on hardiness. Thus, personality seems to have an indirect effect on adjustment through its impact on coping strategies.

### 3.3.1.4 Self Esteem

The relationship of self esteem with personality variables and coping has been investigated. Robins, Tracy, Trzesniewski, Potter and Gosling (2001) examined the relation between self-esteem and the Big Five personality dimensions. It was found in their study that high self-esteem individuals were emotionally stable, extraverted, and conscientious, somewhat agreeable, and open to experience. It was also shown that individuals reporting high self-esteem tend to rely more on problem-focused coping than those reporting low self-esteem (Terry, 1994). There is some evidence that individuals high in self-esteem tend to make more adaptive choices in stressful situations (Taylor & Brown, 1988). Carver, Scheier, and Weintraub (1989) found positive relationships between self-esteem and the problem-focused strategies such as active coping, planning, and positive re-interpretation. Carver and collegues (1989) also found low self-esteem was associated with using emotion-focused strategies such as denial and behavioral disengagement.

In the present study, mediator role of coping styles between personality variables and self esteem have been investigated. As found in the literature, according to the results of the mediation analyses; predicted higher levels of self esteem through decreased use of helplessness/self blame coping. Results indicated that higher levels of extraversion, conscientiousness, openness/intellect, and control predicted self esteem through lowered levels of helplessness/self blame. In other words, extraversion, conscientiousness, openness/intellect, and control led to a decrease in helplessness/self blame which in turn increased self esteem scores. In this sense, extraversion, conscientiousness, openness/intellect, and control appear to be resiliencies through their impact on lowering helplessness, and lower helplessness has a direct effect in elevating self esteem.

Additionally extraversion, openness/intellect, and control were found to predict higher self esteem with the use of problem focused coping style. Extraversion, openness/intellect, and control predicted higher levels of self esteem through increased levels of problem focused coping. In other words higher extraversion, openness/intellect, and control led to an increase in the use of problem focused coping which in turn increased self esteem scores. Thus, extraversion, openness/intellect, and control appear to be resiliencies through their impact on increasing problem focused coping, and higher levels of problem focused coping in increasing self esteem. Thus, the results showed that extraversion, openness/intellect, and control were protective personality characteristics and their protective role is mediated by their effect on problem focused coping.

Although self esteem has been used as one of the predictors of adjustment in the past (Pelkonen, 2003; Furnham & Cheng, 2000; Robinson, Garber, and Hilsman,

1995; Ralph and Mineka, 1998), the use of self esteem as an indicator of adjustment is a novelty in the adjustment literature. However there is one study in the literature investigating the relationship of self esteem with adjustment outcome. Cheng and Furnham (2002) found that self-esteem had a direct predictive power on happiness and the opposite relationship with depression. These results support the findings of the present study since it explains the relationship of self esteem with psychological health and well being. Psychological health and well being are the two strong indicators of adjustment; hence relationship of self esteem with these outcome variables might help us consider self esteem as an indicator of adjustment itself.

**3.3.1.5 Overall Evaluation of Indicators of Adjustment**

Clark and Watson (1991) propose a theoretical model, called the tripartite model according to which general distress (high negative affect) is the common feature of anxiety and depression, whereas unhedonia (low positive affect) is specific to depression. In the present study the indicators of adjustment have been subjected to factor analysis in order to see whether adjustment was a whole concept or not. Factor analysis indicated that all of the indicators of adjustment fell into a single factor with negatively and positively loaded indicators together with negative affect; however, positive affect was left alone as a single dimension. The findings from the present factor analysis seem to support the idea that adjustment can be referred to as a whole concepts and the indicators of adjustment are mostly related to general distress and psychological health rather than unhedonia which is supported by the tripartite model in the literature. Thus, positive affect can be excluded from the indicators of adjustment that were listed under the first factor.

100

When adjustment is referred to as a whole concept, the results of the factor analysis showed that, indicators of adjustment loaded to this whole factor either positively or negatively. The positively loaded indicators were quality of life and self esteem, where as negatively loaded indicators were poor psychological health and negative affect. According to the results of the factor analysis it could be stated that presence of psychological health, life quality, and self esteem; and absence of negative affect all together indicate adjustment to university. For psychological health, due to the scale characteristics higher scores indicate poor psychological health. Therefore, the only measure showing a negative indication for adjustment is negative affect. Although some indicators had positive and negative loadings due to scale characteristics, it could be interpreted that adjustment could be investigated as a whole and a single dimension.

### 3.3.2 Vulnerability and Resilience

After seeing that the adjustment indicators used in the main study seemed to form a single dimension, except for positive affect it was aimed to classify the predictors of adjustment, in other words it was intended to distinguish the vulnerabilities from the resilience factors. According to the results of the mediation analyses, two sets of predictors can be defined. Extraversion, conscientiousness, openness/intellect, hardiness, and problem focused coping predicted the adjustment indicators loading positively on the adjustment factor. On the other hand, neuroticism and helplessness/self blame predicted the negatively loaded adjustment indicators.

Three sets of correlations were investigated for supporting an accurate classification of predictors. Firstly the correlation coefficients among personality variables and the indicators were taken into account. Positive indicators of

adjustment correlated significantly with extraversion, conscientiousness, openness/intellect, and hardiness (commitment and control). Neuroticism on the other hand predicted the negatively loaded indicators of adjustment (i.e. poor psychological health, negative affect) consistently.

Secondly, the correlation coefficients among coping styles and the indicators were evaluated. It was clearly shown that helplessness/self blame correlated significantly and positively with the negatively loaded indicators of adjustment. In addition to that positive and significant correlations were observed between problem focused coping and the positively loaded indicators of adjustment.

Lastly, correlations among personality variables and coping styles were investigated. It was shown that helplessness/self blame correlated with neuroticism; whereas problem focused coping correlated with extraversion, conscientiousness, openness/intellect, and hardiness (commitment and control).

According to the investigations of the correlations among the predictors and the indicators, predictors were intended to be classified into two groups. The indicators were predicted with several personality variables through the use of different coping styles. It could be stated that extraversion, conscientiousness, openness / intellect, and hardiness (commitment and control) predicted the positively loaded indicators of adjustment through the use of problem focused coping. Neuroticism predicted the negatively loaded indicators of adjustment through the use of helplessness / self blame as shown in Table 30.

Table 30. Vulnerability and Resilience

| Resiliencies | Vulnerabilities |
| --- | --- |
| Extraversion | Neuroticism |
| Conscientiousness | Helplessness/Self Blame |
| Openness/Intellect | |
| Hardiness | |
| Problem Focused Coping | |

Similar to the findings of the main study, resilience studies also suggested different contributors to stress management and adaptation. It was found that individuals who take more risks and seek out solutions in healthy ways tended to have better adaptation than those who excessively avoid. This finding was discussed in terms of a positive correlation between resilience and extraversion, and a negative correlation between resilience and neuroticism in a sample of college students (Campbell-Sills, 2006).

Findings of the main study could also be supportive of the work of Southwick, Vythilingam & Charney (2005) on stress inoculation in terms of resilience. The present study emphasizes the importance of coping styles on adjustment defined previously as a stressful period which is full of challenges. It was found on their research that coping strategies such as cognitive flexibility, cognitive explanatory style, reappraisal, and acceptance were related to stress resilience.

Finally it was reviewed by Connor and Zhang (2006) that patterns of characteristics associated with successful adaptation has recently emerged. Amongst these patterns characteristic commitment, as a type of hardiness, was argued to be a good predictor of successful adaptation. These arguments are consistent with the findings of the present study where hardiness was shown as a strong predictor of adjustment.

### 3.3.3 Limitations

The present study has some methodological limitations that should be taken into account. The participants of the main study were all freshmen and mainly from the engineering departments. The sample of the study included only students of the Middle East Technical University (METU), which limits the generalizibility of the results. METU is one of the most respected universities in Turkey, and only approximately 1% of all applicants are accepted to undergraduate programs. Middle East Technical University is also a more heterogeneous place with students from 40 different departments. Students from each department have different standards of academic conditions (i.e. difficulty of classes, work load) and social environment. Additionally Middle East Technical University is one of the few universities with higher standard of academic and campus opportunities. Considering the larger and heterogeneous structure of the college, the results of the present study may not be generalized to all students of the Middle East Technical University and to college student all over Turkey.

Male to female ratio among participants of the present study was not proportionate. The number of male participants was almost twice as the number of female participants. This male to female ratio may have caused the results to be male dominant. According to the findings of Study I, it is now known that males and females are likely to share different perspectives on adjustment, thus a more gender equality in the sample composition is needed.

Likewise, demographic information gathered from the participants may be insufficient. Since demographic information such as where students live, the characteristics of their household or dormitories, and socioeconomic status may have

led to a homogeneous group in terms of daily hassles, which might have influenced the results of the main study. Furthermore, the study used a cross – sectional design and future longitudinal studies may provide a better picture of predictors of adjustment.

### 3.3.4 Implications for Future Research

The present study identified the indicators of adjustment and maladjustment and classified the predictors of these indicators with several limitations. In these terms there are issues that future research could take into account. The classifications developed according the results of the main study have not been tested with larger groups of different participant characteristics; such as students from different universities and of different age groups or adults experiencing transitions of any sort in their lives. Future research could be helpful for testing the proposed classifications for accuracy.

According to the findings of the present study positive affect was found to be a distinct dimension, from psychological health, negative affect, quality of life, and self esteem. It could be tested with cultural data from other groups of university students and adult samples whether positive affect dimension should be excluded from adjustment research or what its other correlates are.

Self esteem has been classified in the main study as an indicator of adjustment. Future research could make further investigations on whether self esteem is a strong indicator of adjustment or not. Additionally the place of self esteem within the proposed classifications could be better tested and affirmed with research using larger samples.

Adjustment research on personality recently focuses on combinations of personality traits rather than referring to single personality traits (Vollrath & Torgensen, 2000). It could be enriching to the adjustment literature to adapt combinations of personality traits into the proposed classifications, for predictors of adjustment.

Additionally, conducting similar studies with students who are recruited from the counseling services of the universities and comparing their adjustment to normal controls could provide the literature and the university counseling services with more accurate and cultural specific results of adaptation to college. Finally longitudinal studies would provide the literature with more accurate information on whether these predictions are accurate.

### 3.3.5 Implications for University Counseling Services

It was argued according to the diathesis-stress paradigm (Zubin & Spring, 1977) that, in human terms, resilience was an ability to cope with stress and varies with context, time, age, gender, and cultural origin (Connor & Zhang, 2006). Resilience shifts the focus of psychological investigation onto increasing the positive rather than reducing the negative. Inquiry into resilience has evolved from descriptions of resilient qualities, to discovery of the process to uncovering the motivation leading to a resilient manner. Thus, resilience may represent an important target of treatment in anxiety, depression, and stress reactions among university students and support successful adaptation. It was concluded that requirements of such adaptation could be quantified, but available measures are needed to be validated transculturally since resilience is modifiable on individual and cultural levels. There exist many possible determinants of adaptation, including

106

neurobiologic, genetic, personal, and environmental influences according to the diathesis-stress paradigm.

As such, findings of the present study provide the literature with personal determinants of adjustment that are specific to the Turkish culture. According to the results of the main study, helplessness/self blame as a coping strategy was a mediator between several personality variables and maladjustment outcomes, such as negative affect, social/emotional quality of life, self esteem, and poor psychological health. Since recent research focuses on increasing the positive rather than concentrating on the negative, it could be concluded that empowering students who adapt helplessness/self blame as a coping strategy by providing them with ways of coping with the challenges of everyday life would help them adjust better to life in college.

Problem focused coping, on the other hand, was more related to adjustment outcomes such as positive affect and physical health according to the findings of the main study. It was found that lack of problem focused coping increased stress; hence led to poorer physical health and decreased positive affect. Psychological stress and problems with students' physical health could be reduced by teaching them problem focused coping for better adaptation to college life academically, personally, and socially.

In light of the present findings, it could be stated that primary and secondary interventions could be provided for university students. On the primary intervention side, all freshmen students can be given educational information on university adjustment and personal growth. Additionally students with certain personality characteristics can be regarded as risk groups, who are likely to use helplessness/self blame coping. Students can be routinely assessed for their personality characteristics

and preventive psychological counseling programs can be offered for those likely to use helplessness coping and thus facilitate adjustment to university life.

On the other hand, secondary interventions could be provided for the students that apply for the university counseling services. Counseling programs specific to adjustment difficulties can be developed according to the needs of Turkish university students as stated in Study I of the current study and applicants can be taught effective alternative ways for better adjustment to college in terms of more effective coping strategies.

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113

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APPENDIX A

Cinsiyet:

Bölüm:

**SORU I**: Üniversite yaşantısına uyum sağlamak için sizce nelerin gerekli olduğunu sıralayınız.

**SORU II:** Kendi cinsinizde üniversiteye iyi uyum sağladığını düşündüğünüz birini düşünün. Bu kişinin üniversiteye uyum sağlamasında rol oynayan en önemli üç özelliğini yazın.

**SORU III:** Karşı cinsten üniversiteye iyi uyum sağladığını düşündüğünüz birini düşünün. Bu kişinin üniversiteye uyum sağlamasında rol oynayan en önemli üç özelliğini yazın.

**SORU IV:** Sizce hayatta mutlu olabilmek için önemli olan faktörleri sıralayınız.

APPENDIX B

Değerli Katılımcı,

Bu çalışma Orta Doğu Teknik Üniversitesi Klinik Psikoloji Doktora Programına devam eden Uzm. Psk. Özge Orbay'ın yaptığı doktora tezini oluşturmaktadır. Çalışmanın amacı üniversite öğrencilerinin üniversiteye uyumlarını ve mutluluklarını yordayan faktörleri araştırmaktır. Araştırmaya birinci sınıfı bitirmiş olan üniversite öğrencileri katılabilir. Anketleri doldurmak yaklaşık olarak 30 dakika sürmektedir. Araştırmaya katılım tamamen gönüllülük esasına dayanmaktadır. Sizden herhangi bir kimlik bilgisi istenmemekle beraber cevaplarınız da tamamıyla gizli tutulacak ve yalnızca araştırmacı tarafından çalışmayı yürütme amaçlı olarak değerlendirilecektir.

Anketlerde yer alan sorular kişisel rahatsızlık verecek unsurlar içermemektedir. Buna karşın katılımınız sırasında herhangi bir nedenden ötürü rahatsızlık hissederseniz, istediğiniz aşamada cevaplamayı yarıda bırakıp çıkmakta serbestsiniz. Araştırmada doğru sonuçlara ulaşabilmemiz için soruları içtenlikle ve sizi en doğru yansıtacak şekilde cevaplandırmanız çok önemlidir. Çalışma hakkında daha fazla bilgi almak isterseniz Orta Doğu Teknik Üniversitesi Klinik Psikoloji Doktora Öğrencisi Özge Orbay (iş tel: (312) 212 68 68; e-posta: e110765@metu.edu.tr) ile iletişime geçebilirsiniz.

➢ Cinsiyetiniz: ( ) K ( ) E

➢ Yaşınız: ……………….

➢ Aşağıdaki seçeneklerden size uygun olanını işaretleyiniz
( )Annem ve babam hayattalar          ( ) Sadece annem hayatta
   ( ) Sadece babam hayatta       ( ) İkisi de hayatta değil
Hayatta iseler;
Anneniniz yaşı:..................... 　　Babanızın yaşı:........................

➢ Annenizin eğitim durumu:
( ) Okuma yazması yok   ( ) İlk okul     ( ) Orta okul   ( ) Lise       ( ) Yüksek okul

➢ Babanızın eğitim durumu:
( ) Okuma yazması yok   ( ) İlk okul     ( ) Orta okul   ( ) Lise       ( ) Yüksek okul

➢ Bölümünüz:………….................

➢ Sınıfınız:..................................

➢ Genel not ortalamanız:........................

APPENDIX C

BSI

Aşağıda, insanların bazen yaşadıkları belirtiler ve yakınmaların bir listesi verilmiştir. Listedeki her maddeyi lütfen dikkatle okuyun. Daha sonra o belirtinin SİZİ BUGÜN DÂHİL, SON BİR HAFTADIR NE KADAR RAHATSIZ ETTİĞİNİ yandaki bölmede uygun olan yerde işaretleyin. Her belirti için sadece bir yeri işaretlemeye ve hiçbir maddeyi atlamamaya özen gösterin. Yanıtlarınızı kurşun kalemle işaretleyin. Eğer fikir değiştirirseniz ilk yanıtınızı silin.

| | Hiç | Biraz | Orta derecede | Epey | Çok fazla |
|---|---|---|---|---|---|
| 1. İçinizdeki titreme ve sinirlilik hali | | | | | |
| 2. Baygınlık, baş dönmesi | | | | | |
| 3. Bir başka kişinin sizin düşüncelerinizi kontrol edeceği fikri | | | | | |
| 4. Başınıza gelen sıkıntılardan dolayı başkalarının suçlu olduğu duygusu | | | | | |
| 5. Olayları hatırlamada güçlük | | | | | |

## PANAS

Aşağıda farklı duyguları tanımlayan bir takım sözcükler bulunmaktadır. Son iki hafta nasıl hissettiğinizi düşünüp her maddeyi okuyun. Uygun cevabı her maddenin yanında ayrılan yere (puanları daire içine alarak) işaretleyin. Cevaplarınızı verirken aşağıdaki puanları kullanın.

| 1. Çok az veya hiç | 2. Biraz | 3. Ortalama |
|---|---|---|
| 4. Oldukça | 5. Çok fazla | |

| | | | | | |
|---|---|---|---|---|---|
| 1. İlgili | 1 | 2 | 3 | 4 | 5 |
| 2. Sıkıntılı | 1 | 2 | 3 | 4 | 5 |
| 3. Heyecanlı | 1 | 2 | 3 | 4 | 5 |
| 4. Mutsuz | 1 | 2 | 3 | 4 | 5 |
| 5. Güçlü | 1 | 2 | 3 | 4 | 5 |

## QUALITY OF LIFE SCALE SHORT FORM 36

Aşağıda günlük yaşamınızla ilgili bilgi edinebilmek amacıyla çeşitli sorular sıralanmıştır. Bu soruları size en uygun seçeneği işaretleyerek yanıtlayınız.

1. Genel olarak sağlığınız için aşağıdakilerden hangisini söyleyebilirsiniz?
   a) Mükemmel      b) Çok iyi      c) İyi      d) Orta      e) Kötü

2. Bir yıl öncesiyle karşılaştırdığınızda, şimdi genel olarak sağlığınızı nasıl değerlendirirsiniz?
   a) Bir yıl öncesine göre çok daha iyi
   b) Bir yıl öncesine göre biraz daha iyi
   c) Bir yıl öncesiyle hemen hemen aynı
   d) Bir yıl öncesine göre biraz daha kötü
   e) Bir yıl öncesinden çok daha kötü

3. Aşağıdaki maddeler gün boyunca yaptığınız etkinliklerle ilgilidir. Sağlığınız şimdi bu etkinlikleri kısıtlıyor mu?

|  | Evet, oldukça kısıtlıyor | Evet, biraz kısıtlıyor | Hayır, hiç kısıtlamıyor |
|---|---|---|---|
| Koşmak, ağır kaldırmak, ağır sporlara katılmak gibi ağır etkinlikler | ( ) | ( ) | ( ) |
| Bir masayı çekmek, elektrik süpürgesini itmek ve ağır olmayan sporları yapmak gibi orta dereceli etkinlikler | ( ) | ( ) | ( ) |
| Günlük alışverişte alınanları kaldırma, veya taşıma | ( ) | ( ) | ( ) |
| Merdivenle çok sayıda kat çıkma | ( ) | ( ) | ( ) |
| Merdivenle bir kat çıkma | ( ) | ( ) | ( ) |
| Eğilme veya diz çökme | ( ) | ( ) | ( ) |
| Bir-iki kilometre yürüme | ( ) | ( ) | ( ) |
| Birkaç sokak öteye yürüme | ( ) | ( ) | ( ) |
| Bir sokak öteye yürüme | ( ) | ( ) | ( ) |
| Kendi kendine banyo yapma veya giyinme | ( ) | ( ) | ( ) |

ROSENBERG SELF ESTEEM SCALE

Lütfen aşağıdaki maddeleri dikkatle okuyun ve her maddenin altındaki 4 cevap şıkkından, size en uygun olanını daire içine alarak işaretleyin.

**1.** Kendimi en az diğer insanlar kadar değerli buluyorum.
   a. Çok doğru     b. Doğru     c. Yanlış     d. Çok yanlış
**2.** Bazı olumlu özelliklerim olduğunu düşünüyorum.
   a. Çok doğru     b. Doğru     c. Yanlış     d. Çok yanlış
**3.** Genelde, kendimi başarısız biri olarak görme eğilimindeyim.
   a. Çok doğru     b. Doğru     c. Yanlış     d. Çok yanlış

PERSONALITY TRAITS INVENTORY

Aşağıda size uyan ya da uymayan pek çok kişilik özelliği bulunmaktadır. Bu özelliklerden herbirinin sizin için ne kadar uygun olduğunu ilgili rakamı daire içine alarak belirtiniz.

| | | Hiç uygun değil | Uygun değil | Kararsızım | Uygun | Çok uygun |
|---|---|---|---|---|---|---|
| 1 | Aceleci | 1 | 2 | 3 | 4 | 5 |
| 2 | Yapmacık | 1 | 2 | 3 | 4 | 5 |
| 3 | Duyarlı | 1 | 2 | 3 | 4 | 5 |
| 4 | Konuşkan | 1 | 2 | 3 | 4 | 5 |
| 5 | Kendine güvenen | 1 | 2 | 3 | 4 | 5 |

## HARDINESS SCALE

Aşağıda bir kişinin dış dünyaya karşı tutumlarını içeren çeşitli önermeler bulunmaktadır. Lütfen her maddeyle ilgili olarak size en uygun seçeneği işaretleyiniz.

| | Kesinlike doğru değil | Pek doğru değil | Genellikle doğru | Tamamen doğru |
|---|---|---|---|---|
| 1. Genellikle, hayatımı bir önceki gün kaldığı yerden devam ettirme isteğiyle dolu olarak uyanırım. | 0 | 1 | 2 | 3 |
| 2. İşimde pek çok çeşitlilik olması hoşuma gider. | 0 | 1 | 2 | 3 |
| 3. Çoğu zaman, insanlar söylemem gerekeni dikkatle dinler. | 0 | 1 | 2 | 3 |
| 4. Önceden plan yapmak, gelecekteki bir çok problemden kaçınmaya yardımcı olabilir. | 0 | 1 | 2 | 3 |
| 5. Yarın bana ne olacağı, bügün ne yaptığıma bağlıdır. | 0 | 1 | 2 | 3 |

## TURKISH WAYS OF COPING SCALE

Bir genç olarak, çeşitli sorunlarla karşılaşıyor ve başa çıkabilmek için çeşitli duygu, düşünce ve davranışlardan yararlanıyor olabilirsiniz. Lütfen sorunlarla başa çıkabilmek için neleri yaptığınızı göz önünde bulundurarak aşağıdaki soruları uygun seçeneği işaretleyerek cevaplayınız.

|  | Hiç uygun değil | Pek uygun değil | Uygun | Oldukça uygun | Çok uygun |
|---|---|---|---|---|---|
| 1. Aklımı kurcalayan şeylerden kurtulmak için değişik işlerle uğraşırım. | 1 | 2 | 3 | 4 | 5 |
| 2. Bir sıkıntım olduğunu kimsenin bilmesini istemem. | 1 | 2 | 3 | 4 | 5 |
| 3. Bir mucize olmasını beklerim. | 1 | 2 | 3 | 4 | 5 |
| 4. İyimser olmaya çalışırım. | 1 | 2 | 3 | 4 | 5 |
| 5. "Bunu da atlatırsam sırtım yere gelmez" diye düşünürüm. | 1 | 2 | 3 | 4 | 5 |

APPENDIX J


LEIU

Aşağıda günlük yaşantınızda size sıkını verebilecek bazı olaylar ve sorunlardan
bahsedilmektedir. Her maddeyi dikkatli bir şekilde okuyarak, son bir ay içerisinde ne
kadar sıklıkla böyle bir olay ya da sorunla karşılaştığınızı maddelerin karşılarında
bulunan uygun olanını işaretleyerek belirtiniz.

| | Hiçbir zaman | Nadiren | Ara sıra | Sık sık | Her zaman |
|---|---|---|---|---|---|
| 1. Derslerin ağırlığı ve yoğunluğu. | 1 | 2 | 3 | 4 | 5 |
| 2. Genel sağlık problemleri. | 1 | 2 | 3 | 4 | 5 |
| 3. Kız / erkek arkadaşımla olan problemler. | 1 | 2 | 3 | 4 | 5 |
| 4. Barınma ile ilgili sorunlar. | 1 | 2 | 3 | 4 | 5 |
| 5. Ulaşım sorunu. | 1 | 2 | 3 | 4 | 5 |

## CURRICULUM VITAE

**PERSONAL INFORMATION**

Surname, Name: Orbay, Özge
Nationality: Turkish (TC)
Date and Place of Birth: 24 April 1979, Eskişehir
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**EDUCATION**

| Degree | Institution | Year of Graduation |
|--------|-------------|--------------------|
| PhD | METU Psychology | 2009 |
| MS | METU Psychology | 2005 |
| BS | METU Psychology | 2002 |
| High School | Eskişehir Anadolu Lisesi | 1997 |

**WORK EXPERIENCE**

| Year | Place | Enrollment |
|------|-------|------------|
| 2006- Present | Başkent University Hospital | Clinical Psychologist |
| 2006–2008 | SANO Clinic | Clinical Psychologist |
| 2004 February- June | Bilkent University Student Development and Counseling Center | Intern Student |
| 2000-2002 | METU Department of Psychology | Student Assistant |

**FOREIGN LANGUAGES**

Advanced English

**PUBLICATIONS**

1. Orbay, Ö., Ayvaşık, H.B. (2006). Spence Çocuklar İçin Kaygı Ölçeği-Ebeveyn Formu: Ön Çalışma. *Türk Psikoloji Yazıları, 9(18)*, 33–48.

HOBBIES

enis, Movies, Piano

APPENDIX L

TURKISH SUMMARY

Pozitif psikoloji ve sağlık psikolojisinin önemli amaçlarından biri de insanların uyumlarını ve mutluluklarını artırmaktır (Seligman & Csikszentmihalyi, 2000). Uyum bir kişinin günlük yaşamın zorlukları ve gereklilikleri karşısında geçirdiği değişiklik ve başa çıkmalar olarak tanımlanabilir (Creer, 1997). Üniversite yılları da günlük yaşantıda akademik sosyal, ve duygusal zorlukların belirdiği bir dönem olarak incelenebilir (Chickering & Reisser, 1993). Ancak, kimi öğrencileri bu zorluklarla uygun ve yapıcı şekillerde başa çıkabilirken kimilerinin ise bu başa çıkma sürecini sağlıklı olarak geçiremedikleri bilinmektedir (Tinto, 1987). Çeşitli bilişsel ve duygusal süreçlerin uyumun zorluklarıyla başa çıkmada etkili olduğu gösterilmiştir. Buna rağmen bireylerin ise özellikle davranışçı başa çıkma yollarını kullanmaya eğilimi olduğu söylenebilir.

Bu çalışma, iyi uyumu yordayan kişilik özelliklerini ve başa çıkma yollarını belirlemeyi amaçlamaktadır. Bu amaçla öncelikle üniversite öğrencilerine üniversiteye uyum için gerekli olan faktörler sorulmuş ve alınan cevaplar incelenmiştir. Kişilik, bağımsızlık, psikolojik sağlık, fiziksel sağlık ve mutluluk gibi faktörlerin öğrenciler tarafından önemli bulunduğu bilgisi edinilmiştir. Öğrencilerin bu bakış açısından yola çıkarak psikolojik sağlık, mutluluk, yaşam kalitesi ve öz

136

güven bağımlı değişkenler olarak seçilmiş ve bu değişkenleri yordayan çeşitli kişilik özellikleri ve başa çıkma yolları araştırılmıştır.

## METOD

**Katılımcılar**

Üniversite birinci sınıf öğrencisi, 102 kadın ve 199 erkek, 301 bir öğrenci çalışmaya katılmıştır. 238 öğrenci mühendislik fakültesinden, 63 öğrenci ise fen edebiyat ve idari bilimler fakültelerinden sağlanmıştır. Öğrencilerin annelerinin %69'u, babalarının ise %80'i lise ve yüksek okul mezunudur.

**Gereçler**

**Demografik Bilgi Formu**

Demografik bilgi formu öğrencilerin yaşı, cinsiyeti, anne ve baba eğitimi, bölümü ve genel not ortalaması ile ilgili bilgi edinmeyi amaçlayan sorular içermektedir.

**Kısa Semptom Envanteri**

Envanter, Derogatis (1983) tarafından 53 maddelik Likert tipi bir ölçek olarak geliştirilmiştir. Türkçe geçerlik ve güvenirlik çalışmaları Şahin ve Durak (1994) tarafından gerçekleştirilmiştir. Bu çalışma için Alfa kat sayısı araştırılmış ve .89 olarak tespit edilmiştir.

**Pozitif ve Negatif Duygulanım Ölçeği**

Pozitif ve Negatif Duygulanım Ölçeği (Watson, Clark, & Tellegen, 1988) duygulanımı ölçmek amacıyla iki alt ölçek halinde geliştirilmiştir. Pozitif duygulanım ve negatif duygulanım alt ölçekleri 10ar maddeden oluşmaktadır ve birbirleriyle korele değildir. Ölçeğin Türkçe geçerlik ve güvenirlik çalışmaları

Gençöz (2000) tarafından gerçekleştirilmiştir. Bu çalışmaya ait Alfa katsayıları araştırılmış ve pozitif duygulanım için. 83, negatif duygulanım için ise. 84 olarak tespit edilmiştir.

**Yaşam Kalitesi Ölçeği Kısa Form 36**

Ölçek Rand Corporation tarafından yaşam kalitesini ölçmek amacıyla geliştirilmiştir (Ware & Sherbourne, 1992). Orijinal ölçek 36 madde ve 8 alt testten oluşmaktadır. Orijinal ölçeğin Türkçe geçerlik ve güvenirlik çalışmaları yapılmış ve tatminkâr sonuçlar elde edilmiştir (Koçyiğit, Aydemir &, Fişlek, 1999).

Bu çalışma için 8 alt ölçek faktör analizine alınmış ve iki faktörlü bir çözüm elde edilmiştir. Oluşturulan faktörler Sosyal Duygusal Yaşam Kalitesi ve Fiziksel Yaşam Kalitesi olarak adlandırılmıştır. İki alt ölçeğin Alfa kat sayıları sırasıyla. 88 ve. 84 olarak tespit edilmiştir.

**Rosenberg Özgüven Ölçeği**

Rosenberg Özgüven Ölçeği (Rosenberg, 1995) 10 maddeden oluşmaktadır. Ölçeğin Türkçe geçerlik güvenirlik çalışmaları Çuhadaroğlu (1986) tarafından yapılmış ve orijinal ölçekle uyumlu geçerlik güvenirlik katsayıları elde edilmiştir. Bu çalışmaya ait Alfa katsayısı ise. 89 olarak tespit edilmiştir.

**Temel Kişilik Özellikleri Ölçeği**

Ölçek 47 maddeden oluşmaktadır ve Türk popülâsyonunda temel kişilk özelliklerini ölçmek amacıyla geliştirilmiştir (Gençöz. & Öncül). Ölçeğe ait 6 faktör 5 puanlı Likert tipi değerlendirmeyle ölçülmektedir. Bu çalışmaya ait geçerlik güvenirlik çalışmaları yapılmış ve orijinal ölçeğe uygun Alfa değerleri elde edilmiştir.

**Dayanıklılık Ölçeği**

Orijinal dayanıklılık ölçeği (Madi, 1987) 50 maddeden oluşmakta ve 4 puanlı Likert tipi sistemle ölçülmektedir. Ölçeğin Türkçeye uyarlama çalışmaları Motan (2002) tarafından gerçekleştirilmiş ve yapılan faktör analizinde adanmışlık ve kontrol adında iki faktör belirlenmiştir. Bu çalışma için yapılan geçerlik güvenirlik çalışmaları alt ölçekler için sırasıyla .67 ve .63 Alfa katsayılarını göstermiştir.

**Türkçe Başa Çıkma Yolları Ölçeği**

Orijinal ölçek Folkman ve Lazarus (1980) tarafından 68 madde olarak oluşturulmuştur. Ölçek Türkçeye Siva (1991) tarafından çevrilmiştir ve 6 madde eklenmiştir. Ölçeğin faktör yapısı başka bir çalışmada incelenmiş ve beş faktör tanımlanmıştır (Gençöz, Gençöz & Bozo, 2006). Ölçeğin geçerlik güvenirlik katsayıları bu çalışma için de araştırılmış ve Alfa değerleri problem odaklı başa çıkma için. 90, dini başa çıkma için .83, sosyal destek arayışı için .80, çaresizlik için .77 ve kaçınma için .71 olarak tespit edilmiştir

**Üniversite Öğrenciler için Yaşam Olayları Ölçeği**

Üniversite Öğrencileri için Yaşam Olayları Ölçeği (Oral, 1999) 49 maddeden ve beş alt ölçekten oluşmaktadır. Günlük zorlukları ölçmek amacıyla oluşturulmuştur. Bu çalışma için hesaplanan Alfa katsayısı. 91 olarak tespit edilmiştir.

**İşlem**

Orta Doğu Teknik Üniversitesi Sosyal Bilimler Enstitüsü Etik Kurulu'ndan izin alındıktan sonra, Mühendislik, Fen Edebiyat ve İdari Bilimler Fakültelerine ait birinci sınıflar araştırmaya katılmak üzere uygunluk esasına göre seçilmiştir. Her sınıf için, dersi veren akademisyenin izni alınmıştır. Uygulamadan önce, öğrencilerin

doldurması beklenen formlar karıştırılmış ve 10 ayrı form elde edilmiştir. Uygulama her dersin başında araştırmacı tarafından gerçekleştirilmiş ve 35 dakika sürmüştür. Katılımcılardan onam alınmış ve katılımın gönüllülük esasına dayalı olduğu bilgisi verilmiştir. Uygulamadan sonra katılımcılara bilgilendirilme yapılmıştır.

## BULGULAR

### Uyum Göstergelerinin Faktör Yapısı

Psikoloji sağlık, Negatif duygulanım, Pozitif Duygulanım, Sosyal Duygusal Yaşam Kalitesi, Fiziksel yaşam kalitesi ve özgüven değişkenleri, uyumun faktör yapısının anlaşılması amacıyla faktör analizine alınmıştır. Scree plot iki faktörlü bir çözüm önermiştir. Psikoloji sağlık, Negatif duygulanım, Sosyal Duygusal Yaşam Kalitesi, Fiziksel yaşam kalitesi ve özgüven tek bir faktörde yer almış ve toplam varyansın %49'unu açıklamıştır (1. Faktör). Pozitif Duygulanım ise toplam varyansın % 19'unu açıklayarak tek başına ayri bir faktörde (2. Faktör) yer almıştır

Birinci faktörde psikoloji sağlık ve negatif duygulanım negatif yüklenirken, sosyal duygusal yaşam kalitesi, fiziksel sağlık ve özgüven, ölçek özellikleri bakımından pozitif yüklenmiştir. Birinci faktör uyum göstergeleri olarak adlandırılacak olursa iyi psikolojik sağlık, yüksek yaşam kalitesi, yüksek özgüvenin varlığının ve negatif duygulanımın yokluğunun uyuma işaret ettiği söylenebilir.

### Mediasyon Testleri

Bu bölümde, araştırmanın amaçları doğrultusunda test edilecek olan mediasyon ilişkileri bir dizi regresyon analizi sonucunda tanımlanmış ve listelenmiştir. Yapılan regresyon analizlerinden alınan sonuçlar Sobel test ile kontrol edilmiş ve listelenen sonuçlar anlamlı bulunmuştur.

1. Çaresizliğin Kişilik değişkenleri (sorumluluk, nörotisizm, açıklık) ve Kısa Semptom Envanteri puanları arasındaki mediatör rolü

2. Çaresizliğin Kişilik değişkenleri (sorumluluk, nörotisizm) ve Negatif Duygulanım arasındaki mediatör rolü

3. Problem odaklı başa çıkmanın Kişilik değişkenleri (açıklık, adanmışlık) ve Pozitif duygulanım arasındaki mediatör rolü

4. Çaresizliğin Kişilik değişkenleri (nörotisizm) ve Sosyal duygusal yaşam kalitesi arasındaki mediatör rolü

5. Problem odaklı başa çıkmanın Kişilik değişkenleri (kontrol) ve Fiziksel yaşam kalitesi arasındaki mediatör rolü

6. Çaresizliğin Kişilik değişkenleri (dışa dönüklük, sorumluluk, açıklık, kontrol) ve Özgüven arasındaki mediatör rolü

7. Problem odaklı başa çıkmanın Kişilik değişkenleri (dışa dönüklük, açıklık, kontrol) ve Özgüven arasındaki mediatör rolü

## TARTIŞMA

**Uyum Göstergelerinin Genel Değerlendirmesi**

Clark and Watson (1991) tripartite model adı altında bir model önermişlerdir. Bu modele göre genel rahatsızlık (yüksek negatif duygulanım) anksiyete ve depresyonun ortak bir özelliği olarak, anhedoni (düşük pozitif duygulanım) ise depresyona özel bir faktör olarak belirtilmiştir. Bu çalışmada uyum göstergeleri uyumun tek bir faktör olup olmadığını test etmek amacıyla faktör analizine tabi tutulmuştur. Faktör analizi sonuçları uyum göstergelerinin negatif duygulanımla birlikte tek bir faktöre yüklendiğini, pozitif duygulanımın ise ayrı bir boyut olarak bu

141

göstergelerden ayrıldığını ortaya koymuştur. Bu bulgu uyumun anhedoniden ayrı olarak, genel psikolojik rahatsızlık ve psikolojik sağlık ile ilgili bütün bir kavram olduğu fikrini desteklemektedir. Bulgular tripartite pozitif-negatif duygulanımın kullanımı açısından tripartite modeli de desteklemektedir. Bu durumda pozitif duygulanımın uyum göstergelerinden biri olmayabileceği düşünülebilir.

Uyum bütün bir kavram olarak ele alındığında psikolojik sağlığın, yaşam kalitesinin ve özgüvenin varlığı, negatif duygulanımın ise yokluğu üniversiteye uyumun gerekleri ve tanımı olarak değerlendirilebilir.

**Yatkınlıklar ve Koruyucu Faktörler**

Uyum bütün bir kavram olarak değerlendirildikten ve gerekli mediasyon analizleri tamamlandıktan sonra, uyumu yordayan faktörler gruplanmaya çalışılmıştır. Mediasyon analizlerinin sonuçlarına göre iki grup yardayıcı tanımlanabilir. Dışa dönüklük, sorumluluk, açıklık, dayanıklılık ve problem çözme becerisi üniversiteye iyi uyumu yordamış, nörotisizm ve çaresizlik ise üniversiteye uyum sağlanamayan durumları yordamıştır. Bu değişkenlerin birbirleriyle korelâsyonları incelenmiş ve iki ayrı gruptaki değişkenlerin kendi aralarında yüksek korelâsyonlara sahip oldukları gözlenmiştir.

Bu çalışmanın bulgularına benzer olarak literatürdeki koruyucu faktör çalışmaları risk alma davranışının ve sağlıklı çözümler arama davranışlarının stresle başa çıkmaya katkılarını araştırmışlardır. Bulgular üniversiteye uyum konusunda koruyucu faktörlerle dışa dönüklük arasında pozitif bir ilişkiye, koruyucu faktörlerle nörotisizm arasında ise negatif yönlü bir ilişkiye işaret etmektedir (Campbell-Sills, 2006). Buna ek olarak bu çalışmanın bulguları Connor ve Zhang (2006) tarafından yapılan ve kişilik özelliklerinin güçlü uyuma işaret ettiğini gösteren bulgularını da

142

desteklemektedir

**Sınırlılıklar**

Bu çalışmanın dikkate alınması gereken çeşitli metodolojik sınırlılıkları bulunmaktadır. Çalışmanın bütün katılımcıları birinci sınıf öğrencilerinden oluşmaktadır ve tüm üniversite popülâsyonunu temsil etmemektedir. Katılımcılar sadece ODTÜ öğrencisi olup Türkiye genelindeki öğrenci kalabalığını temsil etmiyor olabilir. Bunun sebebi ODTÜ'nün üniversite öğrencilerinin %1'lik bir dilimine ev sahipliği yapıyor olması ve üniversite koşullarının diğerlerinden yapısal olarak farklı olmasıyla açıklanabilir.

Katılımcılar arasındaki erkeklerin kadınlara oranı eşit değildir. Bu eşitsizlik sonuçların erkek öğrencilerin fikirlerinde yoğunlukla etkilenmesine sebep olmuş olabilir. Benzer şekilde katılımcılardan yaşam alanları ve sosyo ekonomik durum ile ilgili alınan demografik bilgiler yetersiz olabilir. Bu da grubun heterojen bir yapıda olmuş olmasına sebebiyet vermiş olabilir.

**Gelecekteki Araştırmalar için Öneriler**

Bundan sonra üniversiteye uyum konusunda yapılacak çalışmalar farklı şehirlerin farklı üniversitelerinden daha geniş gruplara ulaşmayı hedefleyebilir. Bu çalışmada uyum göstergeleri ve yordayıcılar gruplandırılmaya çalışılmıştır. Bundan sonraki araştırmalar yapılan sınıflandırmaların doğruluğunu test edebilir.

Çalışmanın sonuçlarına göre pozitif duygulanım ayrı bir faktör olarak ortaya çıkmıştır. Pozitif duygulanımın uyum çalışmalarındaki yeri farklı yaşlardaki gruplarla yapılacak çalışmalarla netleştirilebilir. Buna ek olarak pozitif duygulanıma ait kültürel bakış açıları geliştirilebilir.

Özgüven ilk kez bu çalışmada üniversiteye uyumun bir göstergesi olarak ele alınmıştır. Özgüvenin uyum araştırmalarında yordayıcı olarak görevinin yanı sıra üniversiteye uyumun göstergeleri arasındaki yeri farklı ve daha büyük gruplarla test edilebilir. Buna ek olarak üniversiteye uyum çalışmalarında kişilik özelliklerinin rolü, kişiliğin çok boyutlu olarak ele alınmasıyla genişletilebilir (Vollrath & Torgensen, 2000).

Sınıflardan ulaşılan normal katılımcıların yanı sıra, üniversitelerin psikolojik danışmanlık ve rehberlik merkezlerine başvuran öğrencilerin de üniversiteye uyum çalışmalarına dâhil edilmesi, öğrencilerin ihtiyaçlarını anlama ve belirlemede yardımcı olabilir. Türk kültüründeki öğrencilere sağlanacak desteğin kalitesi bu yolla artırabilir.

**Üniversitelerin Psikolojik Danışmanlık Rehberlik Merkezlerine Öneriler**

Son yıllarda koruyucu faktörlerle ilgili çalışmalar odaklarını negatif olanı değiştirmek yerine pozitif olanı artırmaya çevirmişlerdir. Araştırmalar koruyucu faktörler konusunda kişiyi motive eden mekanizmalara önem vermeye başlamıştır. Bu durumda koruyucu faktörlerin üniversite öğrencilerinin uyum sırasındaki stres reaksiyonlarını tedavi etmede önemi büyüktür ve öğrencilerin genetik, kişisel ve çevresel donanımları tanınmalı ve incelenmelidir.

Bu bağlamda, çalışmanın sonuçları literatüre Türk üniversite öğrencilerine özgü fikir ve ihtiyaçlarla ilgili bilgilerle katkıda bulunmuştur. Sonuçlara göre çaresizlik ile başa çıkmanın öğrenciler için negatif bir özellik olduğu, buna karşılık problem çözme becerisinin artırılmasının uyum sürecini olumlu etkileyeceği tartışılmıştır.

Problem çözme becerisinin uyum göstergeleriyle yakından ilgili olduğu gösterilmiştir. Problem çözme becerisi olan kişilerin daha az stres yaşadığı ve buna bağlı olarak da sağlık sorunlarının azlığı dikkati çekmektedir. Bu durumda öğrencilere problem çözme becerileri kazandırılarak fiziksel sağlıklarının iyileşmesine katkıda bulunulabilir.

Çalışmanın bulguları ışığında öğrenciler için birincil ve ikincil olmak üzere iki çeşit müdahale önerilebilir. Birincil müdahalede öğrencilerin uyumlarına engel olabilecek özelliklerin ortadan kaldırılmasına çalışılabilir. Bu amaçla üniversite örgencilerine problem çözme becerileri edindirilebilir ya da öğrenciler kişisel gelişim ve uyum konularında bilgilendirilebilir. Diğer yandan ikincil müdahale, üniversitelerin rehberlik merkezlerine başvuran öğrencilere tedaviye yönelik müdahaleleri içerebilir. Bu çalışmadan elde edilen bulgular Türk üniversite öğrencilerinin uyum sorunlarını anlamada ve üniversiteye uyum konusuna özel programlar geliştirilmesinde kullanılabilir.