PREDICTIVE ROLE OF PERFECTIONISM ON ACADEMIC ACHIEVEMENT AND LIFE SATISFACTION

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Thesis Abstract

Zeynep Göç, "Predictive Role of Perfectionism on Academic Achievement and Life Satisfaction"

The main aim of this study was to investigate the predictive role of perfectionism on the level of academic achievement and life satisfaction. In this context, the impact of various perfectionism dimensions (excessive concern over mistakes, high personal standards, doubts about actions, need for organization, high parental expectations and excessive parental criticism), adaptive, maladaptive or overall perfectionism on academic achievement, various life satisfaction dimensions (friend, family, school, environment and self) and overall life satisfaction of male and female high school students was explored.

The study was carried out in 3 high schools in İstanbul and 181, 10th grade students who were selected from these schools formed the sample of the study. The Turkish form of Frost Multidimensional Perfectionism Scale, the Turkish form of Multidimensional Students' Life Satisfaction Scale and demographic information form were administered to participants.

Multiple regression analyses revealed that excessive parental criticism showed a general maladaptive pattern and predicted academic achievement, friend satisfaction and family satisfaction negatively. Adaptive perfectionism, on the other hand, made a positive contribution to the overall life satisfaction and school satisfaction. Relying on these results, it can be concluded that this study confirmed the importance of the parenting style and the quality of parent-child relationships in terms of predicting life satisfaction of adolescents and the importance of adaptive perfectionism (the combined effect of having high personal standards and of being ordered and organized) for satisfaction with life and its dimensions.

Tez Özeti

Zeynep Göç, “Mükemmeliyetçiliğin Akademik Başarı ve Yaşam Doyum Üzerindeki Yordayıcı Rolü”

Bu çalışmanın ana amacı mükemmeliyetçiliğin akademik başarı ve yaşam doyum üzerindeki yordayıcı rolünü incelemektir. Bu bağlamda, çeşitli mükemmeliyetçilik boyutları (hatalar üzerinde aşırı ilgi, yüksek kişisel standartlar, davranışlardan şüphe, düzen ihtiyacı, yüksek ebeveyn beklentileri ve aşırı ebeveyn eleştirelliği), olumlu, olumsuz veya toplam mükemmeliyetçilik düzeyinin kız ve erkek lise öğrencilerinin akademik başarı düzeyi, arkadaş, aile, okul, yaşanılan çevre ve benlik doyum düzeyi ile yaşam doyum düzeyi üzerindeki rolü araştırılmıştır.

Araştırma, İstanbul ili içerisindeki üç lisede yürütülmüş ve araştırmanın örneklemini bu liselerin 10. sınıflarında okuyan 181 öğrenci oluşturmuştur. Katılımcılara, Frost Çok Boyutlu Mükemmeliyetçilik Ölçeği (ÇBMÖ-F), Lise Öğrencilerinde Çok Boyutlu Yaşam Doyum Ölçeği (LÖÇBYDÖ) ve demografik bilgi formu uygulanmıştır.

Çoklu regresyon analizleri, aşırı ebeveyn eleştirelliğinin genel olarak olumsuz bir örüntü sergilediğini ve akademik başarıyı, arkadaş ve aile doyumunu negatif olarak yordadığını ortaya koymuştur. Öte yandan, olumlu mükemmeliyetçiliğin yaşam doyum ve okul doyumunu olumlu olarak yordadığı bulunmuştur. Bu çalışmanın, ebeveynlik tarzı ve ebeveyn-çocuk ilişkisinin kalitesinin ve olumlu mükemmeliyetçiliğin, ergenlerin yaşam doyumunun yordanması açısından önemini doğruladığı vurgulanmış ve bulgular mevcut literatür bağlamında tartışılmıştır.

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ABBREVIATIONS

1) AP : Adaptive Perfectionism
2) BASC : Behavioral Assessment Scale for Children
3) CM : Excessive Concern over Mistakes
4) ÇBMÖ : Çok Boyutlu Mükemmeliyetçilik Ölçeği
5) ÇÖYDÖ : Çok Boyutlu Öğrenci Yaşam Doyumu Ölçeği
6) DA : Doubts about Actions
7) FMS : Family Satisfaction
8) FMPS : Frost's Multidimensional Perfectionism Scale
9) FRS : Friend Satisfaction
10) GPA : Grade Point Average
11) HMPS : Hewitt & Flett's Multidimensional Perfectionism Scale
12) LES : Living Environment Satisfaction
13) LÖÇBYDÖ : Lise Öğrencilerinde Çok Boyutlu Yaşam Doyum Ölçeği
14) Max : Maximum
15) Min : Minimum
16) MP : Maladaptive Perfectionism
17) MSLSS : Multidimensional Students' Life Satisfaction Scale
18) OLS : Overall Life Satisfaction
19) OP : Overall Perfectionism
20) OR : Need for Organization
21) PC : Excessive Parental Criticism
22) PE : High Parental Expectations
23) PS : High Personal Standards
24) SCS : School Satisfaction
25) SELFS : Self Satisfaction
26) SPSS : Statistical Package for the Social Sciences

CHAPTER I: INTRODUCTION

The concept of perfectionism is a much debated question recently and the main issue of debates is whether it is a helpful or harmful state. One definition of the concept has been made by Frost et al. (1990) as having excessively high standards and trying to achieve these standards with overly critical self evaluation. Having high standards may be good most of the time since it results in greater purpose in life and greater personal growth (Chang, 2006) but, at the same time, since perfectionism as a whole is linked to low self-esteem (Adderholdt & Goldberg, 1999), feeling of worthlessness, harsh self-criticism, negative emotional states or conditions (Chang, 2006) and lower life satisfaction according to some studies (eg. Chang, 2000) and higher life satisfaction according to others (Gilman & Ashby, 2003), the construct seems extremely complex (Flett et al., 2007) which makes it is hard to answer the question of the debate above. Mallinger and Dewyze (1992) have made a list of features of perfectionists and added that if these features are not exaggerated and rigid, they are valuable qualities in fact, for a person to have. These features are " fear of making errors, fear of making wrong the decision or choice, strong devotion to work, need for order or firmly established routine, frugality, need to know and follow the rules, emotional guardedness, tendency to be stubborn or oppositional, heightened sensitivity to being pressured or controlled by others, inclination to worry, ruminate, or doubt, need to be above criticism – moral, professional, or personal, cautiousness, chronic inner pressure to use every minute productively" (Mallinger & Dewyze, 1992, p.3).

As Mallinger and Dewyze also stated, some of these features may ease a person's life, in fact. The question is which of these features and on what levels they become helpful. The answer of the question perhaps lies under the domains of perfectionism, perhaps under the level of perfectionism, or perhaps under the domains and level, together. Whatever the answer is, the ultimate goal of life is to be happy. In other words, all of our aims and actions serve to have a life with which we are satisfied. So, it seems important to know what make people satisfied with their lives and what make them dissatisfied. Generally speaking, life satisfaction is the degree to which the person likes the life s/he leads (Veenhoven, 1991; 1996). A more detailed description of life satisfaction was made by Pavot, Diener, Colvin and Sandvik (1991) as an overall cognitive evaluation of one's life. According to this definition, people evaluate their lives by comparing their self-imposed criteria with their perceived life circumstances.

An eighty-five-year-old woman, Nadine Stair, (Mallinger & Dewyze, 1992) wrote her "if only"s which are the results of her perfectionism and low life satisfaction during the course of her life, as follows:

> If I had my life to live over I'd like to make more mistakes next time. I'd relax. I would limber up. I would be sillier than I have been this trip. I would take fewer things seriously. I would take more chances. I would climb more mountains and swim more rivers. I would eat more ice-cream and less beans. I'd perhaps have more actual troubles, but I'd have fewer imaginary ones. You see, I'm one of those people who live sensibly and sanely hour after hour, day after day. Oh, I've had my moments, and if I had to do it over again, I'd have more of them. In fact, I'd try to have nothing else. Just moments, one after another, instead of living so many years ahead of each day. I've been one of those persons who never goes anywhere without a thermometer, a hot water bottle, a raincoat, and a parachute. If I had to do it again, I would travel lighter than I have. (Mallinger & Dewyze, 1992, p.10).

Realizing what would make us happier at the end of our life may be meaningless and ineffectual. The important thing is to find it out as early as possible in order to live a life with which one is satisfied. The present study was conducted on adolescents in order to make it possible to intervene with the variables under investigation and to open a road to develop programs that aim to increase life satisfaction of adolescents in relation to perfectionism and academic achievement. Academic achievement plays a key part in adolescents' life and is thought to be related to both perfectionism and life satisfaction. A study conducted on 93 male, 85 female 2-year college students revealed that higher levels of depression and higher levels of socially prescribed perfectionism were associated with lower GPA (Arthur & Hayward, 1997). In a study on 90 female undergraduate students, on the other hand, high personal standards dimension of perfectionism was found to be related to better grades (Brown, Heimberg, Frost, Makris, Juster & Leung, 1999).

The present study aimed to investigate the predictive role of perfectionism on the level of academic achievement and life satisfaction. In this context, the impact of various perfectionism dimensions (excessive concern over mistakes, high personal standards, doubts about actions, need for organization, high parental expectations and excessive parental criticism), adaptive, maladaptive or overall perfectionism on academic achievement, various life satisfaction dimensions (friend, family, school, environment and self) and overall life satisfaction of male and female high school students was explored.

Purpose and Significance of the Study

This study's main aim is to investigate the predictive role of perfectionism and its dimensions on the level of academic achievement and life satisfaction of male and female high school students. Various variables, such as depression, anger, suicidal ideation, stress, age, gender, extraversion, neuroticism, etc. have been widely studied with the variables of perfectionism, life satisfaction and success (Antony & Swinson, 1998; Chang, 2006; Adderholdt & Goldberg, 1999; Chang, 2000; Chang and Rand, 2000; Huebner, Suldo and Valois, 2003; Diener, Oishi & Lucas, 2003; Diener, 1996; Diener, Suh, Lucas & Smith, 1999; Lucas, Diener & Suh, 1996; Pavot et al., 1991; Diener et al., 1985; Pavot & Diener, 1993; Diener & Diener, 1995) but the relationship between perfectionism, life satisfaction and success has not attracted much attention.

The perceived life satisfaction in children and adolescents did not receive enough attention until the early 1990s (Leung & Zhang, 2000). The study of the relationship between perfectionism and multidimensional life satisfaction, on the other hand, is recent and the first study was conducted in 2003 by Rich Gilman and Jeffrey S. Ashby. The relationship between perfectionism and life satisfaction has not attracted attention in Turkey, either. Studies on life satisfaction has majored especially on the elder population (Sarıöz, 2001; Özer, 2001), various patient populations (Okanlı, 2003; Annak, 2005), and various occupation groups (Eraslan, 2000; Vara, 1999) in Turkey. This study aims to fill this gap and to call attention to the relationship of perfectionism to life satisfaction and academic achievement. Briefly, this study is the first study on perfectionism, life satisfaction and academic achievement of high school students in Turkey.

Research Questions of the Study

The research questions of the study are:

1. Do various perfectionism dimensions (excessive concern over mistakes, high personal standards, doubts about actions, need for organization, high parental expectations and excessive parental criticism), adaptive, maladaptive or overall perfectionism predict academic achievement of male and female high school students?
2. Do various perfectionism dimensions (excessive concern over mistakes, high personal standards, doubts about actions, need for organization, high parental expectations and excessive parental criticism), adaptive, maladaptive or overall perfectionism predict various life satisfaction dimensions (friend, family, school, environment and self) or overall life satisfaction of male and female high school students?

The independent variable of the present study is perfectionism. The dependent variables are academic achievement and life satisfaction.

Operational Definitions of the Variables

Independent Variable

The independent variable of the study, perfectionism, has been classified in nine categories. Six of these categories (excessive concern over mistakes, high personal standards, doubts about actions, need for organization, high parental expectations and excessive parental criticism) derive from the dimensions of FMPS

(Frost et al., 1990). Other categories are adaptive perfectionism, maladaptive perfectionism and overall perfectionism.

"Excessive concern over mistakes" is showing negative reactions to mistakes, interpreting making mistakes as a failure and believing that failure will lead one to lose respect of others. "High personal standards" is to set very high standards and unrealistic expectations for self and to place great importance on those standards for self-evaluation. "Doubts about actions" is the tendency to doubt the quality of one's performance and to have an exaggerated feeling that something is missing or wrong with the work one has done. "Need for organization" is an excessive desire to have neatness, order and organization. "High parental expectations" is the extent to which parents are perceived as having high expectations. "Excessive parental criticism" is the extent to which parents are perceived as being overly critical.

Adaptive perfectionism is conceptualized as positive achievement striving and composed of the combination of need for organization and high personal standards dimensions of FMPS (Frost et al., 1997; Frost & Steketee, 1997; DiBartolo, Li, Frost, 2007; Kawamura, Hunt, Frost & DiBartolo, 2001; Kawamura & Frost, 2004; Coles, Frost, Heimberg & Rhéaume, 2003). Maladaptive Perfectionism is conceptualized as maladaptive evaluative concerns and composed of the combination of excessive concern over mistakes, doubts about actions, high parental expectations and excessive parental criticism dimensions of FMPS (Frost et al., 1997; Frost & Steketee, 1997; DiBartolo, Li, Frost, 2007; Kawamura, Hunt, Frost & DiBartolo, 2001; Kawamura & Frost, 2004; Coles, Frost, Heimberg & Rhéaume, 2003). Overall perfectionism is composed of the combination of six dimensions of FMPS. Higher scores on each dimension, adaptive, maladaptive and

overall perfectionism indicate higher levels of that dimension, adaptive, maladaptive or overall perfectionism.

Dependent Variables

Life Satisfaction

One of the dependent variables of the study, life satisfaction, has been classified in six categories. These categories are family satisfaction, friend satisfaction, school satisfaction, self satisfaction, living environment satisfaction and overall life satisfaction. The former five categories (family satisfaction, friend satisfaction, school satisfaction, self satisfaction and living environment satisfaction) have been derived from MSLSS dimensions (Huebner, 1994; as cited in Huebner & Gilman, 2002). The last category, overall life satisfaction, is composed of the combination of five dimensions of MSLSS. The higher the score on each dimension the higher the level of satisfaction with that domain and the higher the score on overall life satisfaction the higher the level of satisfaction with life.

Academic Achievement

Academic achievement, one of the dependent variables of the study, was assessed via the actual 9th grade GPA's of the students.

CHAPTER II: REVIEW OF RELATED LITERATURE

Conceptualization of perfectionism, life satisfaction and academic achievement will be discussed in three main sections. The first section discusses the definition and origins of perfectionism and presents the existing research on perfectionism. The second section discusses the definition and causes of life satisfaction and presents the existing research on life satisfaction. The third section presents the existing research on academic achievement.

Perfectionism

Various Conceptualizations of Perfectionism

David Burns (1980b; as cited in Antony & Swinson, 1998) defines perfectionism as having standards that are high beyond reach and reason, compulsively trying to achieve impossible goals and to determine one's self-worth in terms of success in achieving these goals. He states that the desire to do the best can diminish performance (Antony & Swinson, 1998). In their article "Psychological Distress and the Frequency of Perfectionistic Thinking", Flett, Hewitt, Blankstein and Gray (1998) define perfectionism as one of the automatic thoughts and state that these thoughts are closely related to psychological distress. Hewitt et al. (1998) state that perfectionism is a construct that can be viewed as an achievement-based construct in which achieving personally important goals is important. Mallinger and Dewyze (1992) made a list of features of perfectionists.

These include: “a) fear of making errors, b) fear of making the wrong decision or choice, c) strong devotion to work, d) need for order or firmly established routine, e) frugality, f) need to know and follow the rules, g) emotional guardedness, h) tendency to be stubborn or oppositional, i) heightened sensitivity to being pressured or controlled by others, j) inclination to worry, ruminate, or doubt, k) need to be above criticism – moral, professional, or personal, l) cautiousness, and m) chronic inner pressure to use every minute productively” (Mallinger & Dewyze, 1992, p.3). They state that if these features are not exaggerated and rigid, they are valuable qualities in fact for a person to have.

In the process of trying to define perfectionism, some psychologists conceptualized the term as a multidimensional trait. Two of these psychologists, Paul Hewitt and Gordon Flett defined perfectionism as a multidimensional concept including three dimensions, namely, self-oriented perfectionism, other-oriented perfectionism and socially prescribed perfectionism. The distinction among the three dimensions comes from the direction and source of perfectionistic behavior (Hewitt et al., 1991).

Self-oriented perfectionism is similar to Burns’ definition of perfectionism. It is defined as having standards for oneself that are too high and impossible to achieve (Hewitt et al., 1991). The source of this type of perfectionism is one’s self. Self-oriented perfectionism is related to self-criticism and it occurs when one finds it difficult to accept her/his own mistakes and faults. If negative events in life and failure exist in a self-oriented perfectionist’s life, depression can be experienced (Antony & Swinson, 1998).

If a person is an other-oriented perfectionist, s/he has very high and unrealistic standards for others’ behaviors. In other words, other-oriented

perfectionism is expecting that others meet one's standards that are so high that it is impossible to achieve (Hewitt et al., 1991). This, in turn, can lead one to be unable to delegate tasks to other people because of the belief that others will not show perfect performance. This dimension of perfectionism can result in excessive anger and relationship stress (Antony & Swinson, 1998).

Socially prescribed perfectionism is to have an unrealistic belief that other people expect one to perform perfectly, or in other words, it is to believe that others have such high standards and expectations that one is unable to meet them (Hewitt et al., 1991). Since socially-prescribed perfectionists think that being approved by those others is only possible by accomplishing those expectations, they can experience anger at those people, depression at the end of failure and social anxiety in the form of fear of being judged by others (Antony & Swinson, 1998).

Randy O. Frost and his colleagues (1990) define perfectionism as having excessively high standards and trying to achieve these standards with overly critical self evaluation. They constitute another group of psychologists who define perfectionism as a multidimensional concept including six different dimensions: excessive concern over mistakes, high personal standards, doubts about actions, need for organization, high parental expectations, and excessive parental criticism (Frost et al., 1990). In several studies, 4 dimensions (excessive concern over mistakes, doubts about actions, parental expectations and parental criticism) of FMPS which are identified as "maladaptive evaluative concerns" have been shown to represent maladaptive perfectionism whereas two dimensions (personal standards and organization) which are identified as "positive achievement striving" have been shown to represent adaptive perfectionism (Frost et al., 1997; Frost & Steketee, 1997; DiBartolo, Li, Frost, 2007; Kawamura, Hunt, Frost & DiBartolo, 2001;

Kawamura & Frost, 2004; Coles, Frost, Heimberg & Rhéaume, 2003). Since the need for organization factor was found to be in low correlation with overall perfectionism and other dimensions, it was stated that the organization dimension is not among the major dimensions of perfectionism. So, later conceptualization of perfectionism by Frost et al. (1997) is composed of five dimensions (excessive concern over mistakes, high personal standards, doubts about actions, high parental expectations, and excessive parental criticism).

According to Frost et al.'s conceptualization, "excessive concern over mistakes" is the major dimension of perfectionism (Frost et al., 1990). It includes showing negative reactions to mistakes, interpreting making mistakes as a failure and believing that failure will lead one to lose respect of others (Frost et al., 1997). The dimension of "high personal standards" is defined to set very high standards and unrealistic expectations for self and to place great importance on those standards for self-evaluation. This dimension has been shown to be related to positive achievement striving, feelings of efficacy and positive affect (Frost et al., 1997). "Doubts about actions" is another perfectionism dimension that reflects a tendency to doubt the quality of one's performance. It is an exaggerated feeling that something is missing or wrong with the work one has done (Frost et al., 1997). These doubts may lead to longer periods for work to be done and may cause one to check things over and over again. It is thought to be related to a disorder called obsessive – compulsive disorder (OCD) (Frost & Steketee, 1997; Antony & Swinson, 1998). "Need for organization" is an excessive desire to have neatness, order and organization. Having good organizational skills seems to be an advantage of this dimension of perfectionism but one may spend so much time in the organization phase that the work cannot be completed in time. It also may lead one

to have problems with other people who do things in other ways (Antony & Swinson, 1998). As stated above since this dimension was found to have low correlation with overall perfectionism and other dimensions, it was accepted as not being among the major dimensions of perfectionism (Frost et al., 1990). “High parental expectations” is the extent to which parents are perceived as having high expectations (Frost et al., 1997). Situations in which the parents are the sources of external pressure and have high expectations from their children to perform perfectly may lead them to be perfectionist, and also shy and socially anxious (Antony & Swinson, 1998). “Excessive parental criticism” is the extent to which parents are perceived as being overly critical (Frost et al., 1997). This dimension is closely related to the dimension of high parental expectations and is associated with social anxiety and fear of being judged by others (Antony & Swinson, 1998).

Many studies have conceptualized perfectionism as a destructive construct whereas others have claimed that it does not need to be destructive all the time, for every individual, for every circumstance. Conceptualizations which claim that perfectionism does not need to be destructive all the time, define some of the perfectionists as people striving for good work which they can afford and for high standards which they are capable of achieving. Antony and Swinson (1998) state that it is hard to decide whether an expectation is perfectionistic or appropriately high. While evaluating standards in terms of perfectionism, one should look at whether they are excessive, accurate, helpful and flexible (Antony & Swinson, 1998). So, another way of examining perfection is classifying it in terms of being adaptive or maladaptive.

Hamachek (1978; as cited in Martin, 2005) classifies perfectionism as normal and neurotic. If the goals are attainable by the individual, no matter how

high they are, it can be defined as normal perfectionism. If they are not pursued by the individual, it may result in neurotic perfectionism (Martin, 2005). Normal perfectionists get satisfaction from their efforts to achieve their high standards and they can be flexible in how they achieve those standards. They can be satisfied with the work they have accomplished and their accomplishments lead to an increase in their self-esteem. Neurotic perfectionists, on the other hand, are unable to see their accomplishments as successes and get little satisfaction (Martin, 2005).

Self-oriented and other-oriented dimensions of perfectionism according to the conceptualization of Hewitt and Flett (Martin, 2005) and high personal standards and the need for organization dimensions of perfectionism according to the conceptualization of Frost and colleagues (Martin, 2005; Frost & Steketee, 1997; DiBartolo, Li, Frost, 2007; Kawamura, Hunt, Frost & DiBartolo, 2001) have been shown to represent adaptive perfectionism, whereas the socially prescribed dimension of perfectionism according to the conceptualization of Hewitt and Flett (Martin, 2005) and concern over mistakes, doubts about actions, parental expectations and parental criticism dimensions of perfectionism according to the conceptualization of Frost and colleagues have been shown to represent maladaptive perfectionism (Martin, 2005; Frost & Steketee, 1997; DiBartolo, Li, Frost, 2007; Kawamura, Hunt, Frost & DiBartolo, 2001). However, as it was stated before, perfectionism is an extremely complex construct and some recent studies could not provide strong and consistent evidence that links adaptive perfectionism with adjustment (Chang, Watkins, & Banks, 2004).

In a study conducted by Chang (2006) results indicated that adaptive and maladaptive aspects of performance perfectionism were distinguishable. Chang (2006) defined adaptive and maladaptive perfectionism in terms of outcome

cognitions (optimism, pessimism, hope, etc). He defined high standards of performance that may involve positive outcome cognitions as adaptive and high standards of performance that may involve negative outcome cognitions as maladaptive. He pinpoints the importance of outcome cognitions because positive and negative outcome cognitions are supposed to affect performance by determining approach and avoidance behaviors (Chang, 2006). If one is optimistic about the result of an effort, s/he shows approach behavior, spends adequate effort to reach the outcome and gets satisfaction from her/his accomplishment. If one is pessimistic about the result of an effort, on the other hand, s/he becomes indecisive, avoids taking necessary steps, procrastinates, feels more stress and is not satisfied with the resulting accomplishment. For example, Neumeister and Finch (2006) concluded that self-oriented perfectionists were more likely to set mastery or performance-approach goals whereas socially prescribed perfectionists were more likely to set performance-approach or performance-avoidance goals.

Although there are various definitions of perfectionism (one-dimensional or multidimensional, adaptive or maladaptive) there are some features that are common to all definitions. These features are; having standards or expectations that are impossible or very hard to achieve and that usually interfere with performance although may also be helpful, and being associated with other psychological problems such as anxiety, depression, excessive anger and obsessive-compulsive disorder (Antony & Swinson, 1998).

Development of Perfectionism

Adler (1930; as cited in Martin, 2005) stated that striving for perfection is a characteristic that is with us from the time that we were born, in other words, it is an innate tendency. A recent study conducted by Cox and Enns (2003) has concluded that dimensions of perfectionism were personality trait constructs (all dimensions showed state-trait characteristics rather than pure affective state dependency) but affective states such as depression triggered socially prescribed perfectionism (MPS- H) and the concern over mistakes (MPS – F) dimensions of perfectionism. Another group of researchers, Tozzi et al. (2004), conducted a twin study on a sample of 1022 female twins and reported that three dimensions of perfectionism (concern over mistakes, doubts about actions and personal standards) were moderately hereditary. Concern over mistakes and personal standards dimensions of FMPS were found to share some common genetic effects where doubts about actions and concern over mistakes dimensions were sharing some common environmental factors.

Trying to explain the origins of perfectionism, some researchers emphasize the importance of environmental factors and propose that it develops during childhood due to family pressure, self-pressure, social pressure, media pressure and unrealistic role models (Adderholdt & Goldberg, 1999). Parents' hidden message of conditional love, for example, can lead to the development of perfectionism in childhood (Adderholdt & Goldberg, 1999). Perceiving one's parents supplying conditional love, being critical, negativistic and hard to please may result in feelings of insecurity and being never good enough (Mallinger & Dewyze, 1992).

It is stated by Antony and Swinson (1998) that this issue needs further study but both psychological and biological factors are thought to contribute to this concept due to previous knowledge about the formation of personality. Among the psychological factors, conditioning (reward, reinforcement and punishment), modeling, and information and instruction are thought to be effective on the formation of perfectionism. Society or the system can reinforce having high standards and can punish even little mistakes. This process can lead to perfectionism through conditioning. Observing and imitating other people's behavior can be another way of being a perfectionist. Most of perfectionists report that there were overly perfectionistic people (especially parents and older siblings) in the environment that they grew up in (Antony & Swinson, 1998).

Kevin Leman (as cited in Adderholdt & Goldberg, 1999) brings a different perception to the issue and introduces birth order concept into the scheme of perfectionism by stating that first born children may be more exposed to situations that trigger perfectionism. One such situation is the parents' insecurity, another is being more with adults than being with children, and in this way learning adult vocabulary, modeling adult behavior, measuring themselves according to adults' standards and being reinforced by adults when they accomplish those standards and be achievement-oriented. Sondergeld, Schultz and Glover (2007), on the other hand, have concluded that middle children reported significantly higher levels of perfectionism on doubts about actions dimension than oldest and youngest children.

Research Conducted on Perfectionism

Perfectionism can have a wide range of effects in a person's life. It can affect performance at work/school, the ability to get along with people with whom one shares her/his life, completing/accomplishing things on time due to procrastination, speech due to excessive worry about mispronouncing words or saying wrong things, beliefs related to physical appearance, health and personal cleanness (Antony & Swinson, 1998).

One problematic area for perfectionists is interpersonal relationships according to Adderholdt & Goldberg (1999). They state that since perfectionists can be too critical of others, look for a perfect partner, look for a perfect family, show over commitment and feel exaggerated responsibility, their relationships with others can get damaged. Perfectionist people "aren't fully able to savor relationships with others and with the world at large, nor are they at ease with themselves in their universe" (Mallinger & Dewyze, 1992, p.1).

Frost et al. (1997) conducted a study in which they wanted students to monitor their mistakes everyday. The study revealed that perfectionists reported thoughts about highly important mistakes more frequently. Chang (2006) has proposed that the feeling of worthlessness and harsh self-criticism, which are the result of perfectionistic style of thinking, can lead to negative emotional states or conditions. Perfectionists think that if they are not perfect, they are not worthy of love and respect (Adderholdt & Goldberg, 1999).

Various studies have found perfectionism to be maladaptive and significantly related to psychological dysfunction in college student populations (Chang, 2000). For example, some studies have found perfectionism to be a predictor of greater

psychological symptoms, such as depression, anxiety, and hostility (Chang, 2006). Perfectionism was also found to be related to greater levels of hopelessness and suicidal probability in college students (Chang, 2006).

Similar statements were made by Adderholdt and Goldberg (1999) also. They propose that perfectionists are at risk of stress-related illnesses due to overloading their schedules and inadequate rest. In addition to anxiety, depression, obsessive-compulsive disorder and hopelessness, eating disorders such as anorexia nervosa, bulimia and compulsive eating disorder are thought to be related to perfectionism (Adderholdt & Goldberg, 1999).

Ashby, Rice and Martin (2006) conducted a study in which they aimed to understand the mechanism through which maladaptive perfectionism influences depression. The study was carried out with 215 undergraduate students and it was found that maladaptive perfectionism was positively correlated with depression and shame; negatively correlated with self-esteem.

Shafran and Mansell (2001; as cited in Chang, 2006) found that perfectionism is either maladaptive or linked to maladaptive outcomes whereas Chang (2000) reported that it is linked to lower life satisfaction. According to Adderholdt & Goldberg (1999) perfectionism is among the reasons of teenage suicide and it plays an important role in the development of burnout (Carter, 2006).

In a study conducted on 256 college students, Chang and Rand (2000) found that only socially prescribed perfectionism was significantly and positively correlated to psychological symptoms, specifically depression, anxiety and hostility. These results were consistent in a one-month period. Socially prescribed perfectionism was also significantly and positively correlated with hopelessness whereas self-oriented perfectionism was almost positively correlated to

hopelessness. In addition to these results, this study also found that stress was significantly and positively correlated to perfectionism, psychological symptoms and hopelessness.

In another study conducted on female students of the University of Georgia, the relationship between perfectionism and self-concept was investigated. It was found that there is a negative correlation between those two variables. In other words, as perfectionism scores get higher, self-concept scores get lower. Also, it was found that respondents were measuring their identities according to their performance (Adderholdt & Goldberg, 1999).

In one of his studies, Chang (2006) examined the relationship between perfectionism, stress, and dimensions of psychological well-being in a sample of 265 college students. The results showed that stress mediates the relations between socially prescribed perfectionism and autonomy, environmental mastery, and purpose in life dimensions of psychological well-being. Moreover, it was found in this study that two of the three dimensions of perfectionism, namely other-oriented and socially prescribed perfectionism, according to the conceptualization of Hewitt and Flett were significantly related to stress. Other-oriented and socially prescribed perfectionism were found to be positively related to stress, whereas self-oriented perfectionism was not found significantly related to stress. It was also reported that greater self-oriented perfectionism did not mean less psychological well-being. Moreover, greater self-oriented perfectionism was found to be related to both greater purpose in life and greater personal growth. These findings support the view that self-oriented perfectionism may better reflect an adaptive, rather than a maladaptive, dimension of perfectionism (Dunkley, Zuroff, & Blankstein, 2003; Enns, Cox, & Clara, 2002; Frost et al., 1993; as cited in Chang, 2006). For the explanation of these

results, it was stated that "some perfectionism dimensions may have stronger or weaker, positive or negative, associations with certain dimensions of psychological well-being than other perfectionism dimensions" (Chang, 2006, p.4).

In one of his studies which included the examination of a mediation effect among perfectionism, stress, and two dimensions of psychological well-being, namely, life satisfaction and positive affect, Chang (2000) found that general perfectionism was not significantly associated with positive mood, but was significantly and negatively related to life satisfaction in both young adults and middle-aged adults. In contrast to these results, at the end of a study conducted by James L. Martin (2005), adaptive perfectionists were found to have less stress, more stress coping resources, greater life satisfaction and less dysfunction.

Adderholdt and Goldberg (1999) stated that perfectionism can go hand in hand with procrastination. Procrastination can result in irrational behavior such as not starting a project with the idea that if one does not start something, s/he can't fail, or not handing in a finished project with the idea that the finished work is not good enough, or starting so many projects with the idea that if one did not have to do so much work, s/he could do a great job. All these behavior patterns "act as insurance policies" for perfectionists and they serve to keep self esteem high.

After their study, with 90 female college students, in which the relationship of two dimensions of perfectionism (personal standards and concern over mistakes) to affect, expectations, attributions and performance in classroom, Brown et al. (1999) concluded that subjects who were high on personal standards dimension studied more frequently, evaluated the course as more important, had higher standards and expectations of academic achievement and better grades. Subjects who were high on concern over mistakes dimension also studied more frequently

but they evaluated the course as more difficult, had higher anxiety and a more negative mood prior to exams. Concern over mistakes was not related to better grades.

In a study in which maladaptive perfectionists were defined as individuals who are driven more by the fear of failure than the pursuit of academic excellence and cannot reach their standards and in which adaptive perfectionists were defined as individuals who are driven by the pursuit of academic excellence and can reach their standards, having high personal standards was found to relate positively to relations with parents, interpersonal relations, overall personal adjustment, positive attitudes towards school, and self-reported GPA. Specifically, it was found that maladaptive perfectionist middle school students were experiencing higher intrapersonal difficulties and greater social stress than adaptive perfectionists whereas adaptive perfectionists reported higher GPA than maladaptive perfectionists and nonperfectionists (Gilman & Ashby, 2003). These results are parallel to the results of a study which was conducted on high school students (Accordino, Accordino & Slaney, 2000). Accordino et al. (2000) have found that high standards were positively correlated with GPA, work orientation and self esteem, and negatively correlated with depression. The discrepancy between high standards and actual achievement of those standards, on the other hand, was negatively correlated with GPA, self-esteem, and positively correlated with depression.

Life Satisfaction

Conceptualization of Life Satisfaction

Sociologists and quality of life researchers, mental health researchers, personality psychologists, social, cognitive and humanistic psychologists contributed to the study of the area of subjective well-being (Diener, Oishi & Lucas, 2003). One approach in life satisfaction research perceives it as a component of the concept of Quality-of-life which includes the concepts of subjective well-being and life satisfaction (Diener, Oishi & Lucas, 2003). In other words, Quality-of-life includes subjective well-being and subjective well-being includes life satisfaction. Quality-of-life can be defined with two dimensions, namely objective and subjective. In the objective dimension, external conditions which help to determine Quality-of-life, such as the amount of income, friendship networks, access to various services are included (Valois, Paxton, Zullig & Huebner, 2006). In the subjective dimension, internal judgments of one's quality of life, such as judgments related to overall life satisfaction or satisfaction from specific life domains like friends, family, work, school, etc. are included (Oishi, Diener, Lucas & Suh, 1999).

Subjective well-being, on the other hand, is divided into two components, namely affective (pleasant and unpleasant affect) and cognitive component (life satisfaction). These components are not completely independent although they are distinct constructs (Pavot & Diener, 1993; Diener et al., 1985). There are three main approaches to the assessment of subjective well-being: 1) Global assessment of life and its facets, 2) Recollection of past emotional experiences, 3) Aggregation of

multiple emotional reactions across time (Kim-Prieto, Diener, Tamir, Scollon & Diener, 2005).

Life satisfaction, which is the cognitive component of subjective well-being, can be studied both by evaluating its domains (health, wealth, marriage, relationship, job, etc) and by evaluating life as a whole (global life satisfaction) (Pavot et al., 1991). People may assign different weights to the components listed above (Diener, Emmons, Larsen & Griffin, 1985) so, a person may be dissatisfied with one or more domain/s of her/his life but yet be satisfied with her/his life as a whole as well as s/he may be satisfied with most domains but still be dissatisfied overall just because of the impact of one domain (Pavot et al., 1991).

Global judgment occurs in several stages. In the first stage there are life circumstances and events which cause one to show affective reactions (second stage). Then these reactions are recalled (third stage) and one makes a global evaluative judgment about her/his life (last stage). In order to understand subjective well-being, the entire sequence of stages should be understood; understanding just one stage is not adequate to comprehend subjective well-being (Kim-Prieto, Diener, Tamir, Scollon & Diener, 2005).

Pavot, Diener, Colvin & Sandvik (1991) define life satisfaction as an overall cognitive evaluation of one's life. This evaluation is made by comparing the circumstances of one's life with a criterion that is constructed by the person him/herself. Veenhoven (1996) defines life satisfaction as one of the indicators of "apparent" quality of life which indicates how well people thrive with the indicators of mental and physical health. Another definition that is suggested by Veenhoven (1991, 1996, p. 6) is that "life-satisfaction is the degree to which a person positively evaluates the overall quality of her/his life as-a-whole. In other words, it is how

much the person likes the life s/he leads". According to Veenhoven (1991), "life as a whole" has two aspects: affective (hedonic level: the degree to which various affects an individual experiences are pleasant) and cognitive (contentment: the degree to which an individual thinks that her/his wishes have been met). Veenhoven (1996) defines dissatisfaction with life, on the other hand, as the existence of something wrong in one's life, but not knowing actually what is wrong with her/his life.

Huebner, Suldo and Valois (2003) suggested that high levels of life satisfaction are predictive of positive outcomes related to intrapersonal, interpersonal, educational, vocational, health and similar areas whereas low levels of life satisfaction are predictive of negative outcomes related to physical and mental health.

Life satisfaction has long-term, moderate-term and short-term components. It means that it can be affected by personality (long-term), life events and cognitive schemata (moderate-term) and mood (short-term) (Pavot & Diener, 1993). Reliability studies found that life satisfaction reports show a significant degree of short or long term stability (Frey, Luechinger and Stutzer, 2004) and can show changes with changing life circumstances (Oishi et al., 1999; Frey, Luechinger and Stutzer, 2004). Fujita and Diener (2005) used 17 year-data from the German Socio-Economic Panel (GSOEP) in order to examine the stability of life satisfaction over years, the differences between satisfied and dissatisfied individuals in terms of stability level and to compare stability of life satisfaction with the stability of height, weight, the body mass index, income, personality and physiological measures like systolic and diastolic blood pressure. The researchers found that there was modest stability in life satisfaction and that some individuals showed substantial long-term changes in life satisfaction although the majority of subjects showed long-term

stability in life satisfaction. Subjects who had a higher mean level of life satisfaction were also more stable in life satisfaction whereas height, weight, body mass index, systolic and diastolic blood pressure and personality traits were all found more stable than life satisfaction.

Diener, Oishi & Lucas (2003) propose that people want to be happy by achieving the things they value. A study conducted with 9000 college students in 47 nations concluded that happiness was the most important value among 20 values (e.g., wealth, health, love, getting into heaven, etc.) with a mean value of 8.1 on a nine-point scale of importance (Kim-Prieto, C., Diener, E., Tamir, M., Scollon, C., & Diener, M., 2005).

Value as a moderator model of SWB asserts that people attend value-congruent domains for satisfaction rather than value-incongruent domains (Oishi, Diener, Lucas, & Suh, 1999). For example, economically disadvantaged nations base their life satisfaction judgments more heavily on their level of gratification of basic needs. Parallel to this assumption, Veenhoven (1991) conducted a meta-analysis of 245 studies in 32 countries, showing that highly satisfied people are found mostly in the economically successful countries in which freedom and democracy are respected, mostly in majority groups rather than minority groups, they are mostly married and getting on well with families and friends, more healthy both physically and mentally, more active and open-minded, interested in social and moral matters rather than money making, at the conservative side politically and they are "at the top of the social ladder than at the bottom" (Veenhoven, 1991, p. 16).

At the end of the meta-analysis it was reported that the correlation coefficient between life satisfaction and GNP was .84. Similarly, Dost (2007) reported that life

satisfaction levels of Turkish university students showed changes according to "perceived" economical conditions. Students, who reported that their income levels were high, reported higher life satisfaction than students who reported that their income levels were moderate and low. On the other hand, home life satisfaction was more important in determining the overall life satisfaction in wealthy nations (Oishi et al., 1999).

An interesting finding was that for all cultures job satisfaction was a strong predictor of life satisfaction (Oishi et al., 1999). In another study, Diener et al. (1993) found that a rise or a decline in income did not affect people's happiness. Another finding on the relationship of income and life satisfaction comes from Diener and Tov (2005). They state that there was no significant difference between the life satisfaction of the richest Americans and the Amish, the Inughuit and the Maasai. They also assert that if people do not experience harsh conditions, they tend to be slightly happy and argue that this is a general tendency.

Factors Affecting Life Satisfaction

According to Diener & Diener (1995) the causes of well-being differ across cultures. While trying to explain the causes of life satisfaction, some researchers investigated life chances as an important factor. Life chances include quality of society (such as culture, living conditions, the degree of possibility of access to knowledge, etc.), position in society (such as age, gender, income, education, occupation, marriage status and so on), and personal abilities (such as physical health, mental health, energy, psychological resilience, assertiveness, empathy, etc.).

Personality (extraversion, neuroticism and self-esteem) has an impact on subjective well-being (Diener, Oishi & Lucas, 2003). According to Diener (1996), one's inborn biology predisposes him/her to greater or lesser life satisfaction, since almost half of the variance in life satisfaction is due to genetic variability. Traits were found as the strongest predictors of life satisfaction when measurement error was controlled whereas situations were found only weakly related to it. Self-esteem, optimism and frequent positive emotional experiences were found related to life satisfaction (Diener, 1996; Diener, Suh, Lucas & Smith, 1999; Lucas, Diener & Suh, 1996).

Diener et al. (2003) state that the demographic factors such as health, income, educational background and marital status have a small impact on subjective well-being whereas stable personality traits are often strongly correlated with subjective well-being. Life satisfaction did not have significant relationship with age and gender (Pavot et al., 1991) whereas it was found to be positively correlated with extraversion and negatively correlated with neuroticism (Diener et al., 1985; Pavot & Diener, 1993).

Other factors that are thought to be important determinants of life satisfaction are course of life events and flow of experience such as hedonic experience, likes and dislikes, inner manufacturing of feeling and capacity for enjoyment (Veenhoven, 1996). Trying to explain the effects of life events on life satisfaction, Brickman and Campbell proposed the "hedonic treadmill theory" which states that people keep stable levels of well-being since they adapt to even most extreme positive and negative life circumstances (Lucas et al., 2003).

Life events (good and bad events in people's lives, changing life conditions) play a significant role in the changes in life satisfaction level when studied over long

periods (Pavot & Diener, 1993) but its impact diminishes in time as a result of adaptation. Adaptation occurs but complete adaptation (complete return to initial level of satisfaction) may not be possible in some cases such as losing one's spouse or job (Lucas et al., 2003). According to Diener (1996), major life events have an impact on people's subjective well-being for 3 months or less.

Bobby Duffy (2004) listed the key drivers of life satisfaction which explained 20% of the variation. According to Duffy (2004), a number of studies have shown that comfortable finances, being retired, talking to neighbors, thinking that ordinary people share wealth and doing sports are the positive drivers of life satisfaction whereas having a limiting and long-term illness, wanting to move home, being single and non-retired, not being able to afford visitors and being between the ages of 35-44 are the negative drivers of life satisfaction.

Lucas et al. (2003) analyzed the data from Waves 1-15 of the German Socio-Economic Panel Study (GSOEP), a longitudinal survey in Germany on over 24.000 subjects to examine the effects of marital transitions on life satisfaction. They found that, on average, people showed reactions to events and then returned to their baseline levels. But there were important individual differences (Lucas et al., 2003; Diener, Oishi & Lucas, 2003). For example, they found that there were long term changes which follow marriage so that many people showed lower life satisfaction after marriage than they showed before marriage. Their study also concluded that although adaptation often occurs, in some cases it was slow and partial. Especially, people who had strong reactions to changes in marital status (marriage and widowhood) did not adapt back to their baseline level. Moreover, there were many people who showed no evidence of adaptation.

Research Conducted on Life Satisfaction

Diener & Diener (1995) conducted a study across 31 nations with 13.118 college students. Subjects responded to measures of self-esteem, life satisfaction and satisfaction with specific domains. It was found that life satisfaction was correlated with self-esteem .47, with family satisfaction .36, with satisfaction with friends .39 and with financial satisfaction .37. Financial satisfaction was a stronger predictor of life satisfaction in poorer countries whereas the relationship between self-esteem and life satisfaction was significant in individualistic cultures. The study also showed that self-esteem and life satisfaction are not clearly discriminable constructs but also interrelated (self-esteem is likely to affect life satisfaction or vice versa). Schimmack and Diener (2003) replicated this finding and found that explicit self-esteem was correlated with life satisfaction at the level of .59, with pleasant affect at the level of .45 and with unpleasant affect at the level of -.40 ($p<.05$).

In Turkey, correlation between life satisfaction and self-esteem for women was .35 and it was .38 for men. Life satisfaction was correlated with finances (.52), with family satisfaction (.10) and with friend satisfaction (.44) for women. For men, life satisfaction was correlated with finances (.33), with family satisfaction (.44) and with friend satisfaction (.39) (Diener & Diener, 1995). The mean life satisfaction of both women and men in Turkey was 4.2 with a standard deviation of 1 on a scale from 1 to 7. The mean self-satisfaction of women in Turkey was 5.1 with a standard deviation of 1.1 whereas it was 5.2 for men with a standard deviation of 1.1 on a scale from 1 to 7. In terms of life satisfaction 47% of women and 39% of men were above neutral point whereas 78% of both men and women were above neutral point on self-esteem.

Studies conducted on children revealed correlation between life satisfaction and risk behaviors such as alcohol and drug use, aggressive and violent behavior and sexual activities; psychopathological symptoms such as depression, anxiety, low self-efficacy and loneliness and physical health indices such as eating behavior and exercise (Huebner, Suldo and Valois, 2003). Frey, Luechinger and Stutzer (2004) report that studies revealed that people who report high subjective well-being are more often smiling during social interactions and are less likely to commit suicide.

A major component of the concept of depression is dissatisfaction and pessimism about life, the world and the future (Lewinsohn, Redner & Seeley, 1991). In their study, Lewinsohn, Redner & Seeley (1991) found that there is a significant negative correlation between current depression and life satisfaction and between life satisfaction and future occurrence of depression although Pavot and Diener stated that "life satisfaction showed some degree of autonomy from related subjective well-being constructs such as depression" (Pavot & Diener, 1993, p.170). Lewinsohn, Redner & Seeley (1991) also found that stress and maladaptive coping strategies such as maladaptive escapism, solace seeking, defensiveness and reliance on others for support, are negatively correlated with life satisfaction whereas self-esteem and adaptive coping strategies such as cognitive self-control and self-confidence are positively correlated with life satisfaction.

Chang (2000) reported that perfectionism is linked to lower life satisfaction. In one of his studies which included the examination of a mediation effect among perfectionism, stress, and two dimensions of psychological well-being, namely, life satisfaction and positive affect, Chang (2000) found that general perfectionism was not significantly associated with positive mood, but was significantly and negatively related to life satisfaction in both young and middle-aged adults.

Surveys that were carried out in Western countries showed that people who have high life satisfaction outweighed people who have low life satisfaction by about 3 to 1. Later cross-national studies, conducted in non-Western countries, showed parallel results to the results of Western countries (Veenhoven, 1991). On a 10-point global life satisfaction item, people in Turkey had a mean level of satisfaction of 6.41 (Oishi, Diener, Lucas & Suh, 1999).

Academic Achievement

The dictionary definition of success is "achieving what you want; doing well" (Oxford Wordpower Dictionary, 1993) but "success" is a wide-ranging and flexible (Linton, 1998) term, in fact. The term is wide-ranging because it can be on any area of life such as relationship success, job success and academic success or any topic such as tennis or floriculture. The term is flexible since the measures and criteria of success can be very subjective. In the present study, success is studied in the form of academic achievement.

Academic achievement is a complex concept too. Emotional, cognitive and motivational (Freudenthaler, Spinath & Neubauer, 2008) factors, teacher related factors (Yıldırım, Acar, Bull & Sevinç, 2008), factors related to classroom environment and learning styles (Nelson & DeBacker, 2008; Rayneri, Gerber & Wiley, 2006), self-esteem (Alomar, 2006; Accordino, 1999), parental attitudes and expectations (Flowers & Flowers, 2008; Milne & Plourde, 2006; Alomar, 2006), gender (Freudenthaler, Spinath & Neubauer, 2008; Steinmayr & Spinath, 2008; Alomar, 2006; Accordino, 1999), socio-economic status (Milne & Plourde, 2006), friend relationships (Nelson & DeBacker, 2008) and study habits (Flowers &

Flowers, 2008) are just some of the factors that are thought to have effects on academic achievement. In the following paragraphs, research on some factors that affect academic achievement is summarized.

Research on 1353 pre-adolescents indicated that intelligence and self-esteem were the strongest predictors of academic achievement for both boys and girls, whereas school-related intrinsic motivation, school anxiety and performance-avoidance goals explained variance in academic achievement only for boys, and work avoidance explained variance only for girls (Freudenthaler, Spinath, & Neubauer,2008).

Alomar (2006) reported that prior experience of achievement, gender and academic self-concept of the students had large and direct impact on achievement whereas family size, parental education level and the cultural context in which the family exists had indirect effects.

Fenollar, Roman and Cuestas (2007) reported that achievement goals and self-efficacy had no direct effect on academic achievement whereas study strategies mediated the causal effect of achievement goals and self-efficacy on academic achievement and that academic performance tended to decrease with increasing class size.

A study carried out on African American high school students portrayed that the amount of hours spent doing homework and parents' expectations about the future educational attainment of their children affected reading achievement of participants positively (Flowers & Flowers, 2008).

At the end of a qualitative study on low SES students having high academic achievement, Milne and Plourde (2006) concluded that none of the high achieving students had typical low SES home factors. In other words, it was explored and

found that those students had adequate educational materials and influences, had their parents' support, care and guidance and attended preschool before kindergarten.

Another study that highlights the role of home environment and parental attitude on achievement is the study of Codjoe (2007). Codjoe (2007) emphasizes the importance of home environment and parental attitude for academic achievement stating that these factors (supportive home environment, parental involvement and encouragement) played a significant role on and contributed positively to academic success of African-Canadian youth.

Friend relationship is another factor which has showed to have effect on achievement. A study on 253 middle and high school student sample revealed that perceived peer relationship variables explained variance in achievement motivation (Nelson & DeBacker, 2008). Specifically it was explored that class belongingness and best friends' academic valuing contributed positively to mastery goals, class belongingness contributed positively to self efficacy whereas classmates' resistance to school norms was a positive predictor of performance avoidance goals.

Yıldırım, Acar, Bull & Sevinç (2008) stated that the teacher leadership style (people oriented vs. task oriented) was the main factor affecting students' academic performance. People oriented teachers' students reported that they accept themselves as successful whereas task oriented teachers' students did not. The researchers, however, found no significant relationship between learning style and academic achievement.

At the end of a study which examined the connections between learning style, classroom environment and achievement levels, significant relationships were

found between achivement and persistence, responsibility, motivation, tactile, kinesthetic and auditory learning styles (Rayneri, Gerber & Wiley, 2006).

Personality traits such as perfectionism also affcets academic achievement. Dykstra (2006) found that highly self-oriented perfectionist adolescents reported significantly higher average grades, perceived academic performance, perceived academic effort, and perceived academic importance than the other three groups (socially prescribed perfectionists, high overall perfectionists and non-perfectionists). It was found, on the other hand, that socially prescribed perfectionists were significantly lower on average grades, perceived academic effort, perceived academic importance, and self-reported social skill performance than the other three groups. Another study conducted on 93 male, 85 female 2-year college students revealed that higher levels of socially prescribed perfectionism were associated with lower GPA (Arthur & Hayward, 1997). High personal standards dimension of perfectionism, on the other hand, was found to be related to better grades in a study on 90 female undergraduate students (Brown, Heimberg, Frost, Makris, Juster & Leung, 1999).

Studies show that psycho-educational intervention programs can assist students with increasing their academic achievement. One such study conducted by Pan, Guo, Alikonis and Bai (2008) showed that various intervention programs (including advising, academic help, first year experience, social integration and general orientation) had significant effects on retention and GPA and were more effective for the first year. Martin, Martin, Gibson and Wilkins (2007) drew similar conclusions and stated that at the end of a two-year intervention program (an after-school program including tutoring, group counseling and various enrichment activities), students had increased their daily attendance and basic skills in reading

and mathematics whereas they decreased discipline referrals and no suspensions and expulsions were experienced.

CHAPTER III: METHOD

In this chapter, research participants are discussed first. This is followed by a discussion about the instruments that were used to collect data. The third section is about the research design and in the last section the procedures in sample selection, data collection and data analysis are presented.

Participants

The target population of the study is 10th grade students. The reason for choosing 10th grade students as the target population of the study is to preclude possible OKS (high school entrance exam) and ÖSS (university entrance exam) related stress from intervening with the results since 9th grade students may be experiencing the effects of past stressful period of OKS whereas 11th and 12th grade students may be experiencing the stress of upcoming ÖSS.

A total of 181 (57 females and 124 males) 10th grade students from an Anatolian High School (high-level success), a Public High School (moderate-level success) and a Vocational High School (low-level success) participated in the study. For the selection of participants, these high schools in İstanbul were chosen purposively on the basis of their level of success in ÖSS-2006 as well as on the basis of convenience. Students' mean scores of ÖSS-2006 from each of these schools were compared to İstanbul's mean score of ÖSS-2006 and 3 schools in the Maltepe district were chosen for the implementation of the study. Selecting schools from different levels of success (high, moderate and low) is to get a heterogeneous sample

whereas selecting schools in the Maltepe district is a matter of convenience since the researcher works at the vocational high school that participated in the study. The researcher entered all the 10th year classes in all three schools, for data collection. The distribution of participants in terms of schools is presented in Table1.

Table1. The Distribution of the Numbers of Participants to Schools

Anatolian High School	Public High School	Vocational High School
Female: 17	Female: 40	Female: 0
Male : 29	Male : 34	Male : 61
Total : 46	Total : 74	Total : 61
Total : 181	Female: 57	Male: 124

While 31.5% of the participants (N=57) are females, 68.5% of the participants (N=124) are males. Almost half of the participants (48.1%, N= 87) are first born and almost half of the participants (45.9%, N= 83) have one sibling. The socio-demographic characteristics of the participants are presented in Table 2. The range of participants' age is between 14-18 and the mean age of all participants is 16.01, whereas the mean age of female participants is 15.86 and the mean age of male participants is 16.07 (see Table 3).

As seen in the Table 2, 40.9 % (n= 74) of the participants attend Public High School, 33.7 % (n= 61) of the participants attend Vocational High School and 25.4 % (n= 46) of the participants attend Anatolian High School. While 70.2 % (n= 40) of female participants attend Public High School and 29.8 % (n= 17) of female participants attend Anatolian High School, there are no female participants attending Vocational High School. In terms of male participants, the distribution is as follows: 27.4 % (n= 34) of male participants attend Public High School, 49.2 % (n= 61) of male participants attend Vocational High School and 23.4 % (n= 29) of male participants attend Anatolian High School.

Table 2. The Socio-Demographic Characteristics of the Participants

		Mean	SD
Age			
	Total	16.01	.59
	Female	15.86	.61
	Male	16.07	.57
		N	**Percent (%)**
Gender			
	Female	57	31.5
	Male	124	68.5
School			
	Public High School	74	40.9
	Vocational High School	61	33.7
	Anatolian High School	46	25.4
Birth Order			
	First	87	48.1
	Second	63	34.8
	Third	22	12.2
	Fourth	7	3.9
	Fifth	2	1.1
Education			
	Can't read and write	2	1.1
Level of	Can read and write	1	.6
	Primary School	38	21
Father	Secondary School	55	30.4
	High School	39	21.5
	University	45	24.9
	Other	1	.6
Education			
	Can't read and write	8	4.4
Level of	Can read and write	5	2.8
	Primary School	61	33.7
Mother	Secondary School	51	28.2
	High School	33	18.2
	University	22	12.2
	Other	1	.6
Number			
	Single child	29	16
of	One	83	45.9
	Two	49	27.1
siblings	Three	13	7.2
	Four and above	7	3.9

Table 3. Age Distribution of the Participants

Total N= 181				Female N= 57				Male N= 124			
Min.	Max.	M	SD.	Min.	Max.	M	SD.	Min.	Max.	M.	SD.
14	18	16.01	.59	15	17	15.86	.61	14	18	16.07	.57

Almost half of both males and females are the first child of their parents (50 % of male participants, 43.9 % of female participants and 48.1 % of all participants) whereas only, 1.8 % of female participants, 4.8 % of male participants and 3.9 % of all participants are the fourth child. There is no reported fifth child among females whereas 1.6 % of male participants and 1.1 % of all participants are the fifth child of their parents. Table 4 presents birth order distribution of the participants.

Table 4. Birth Order Distribution of the Participants

Birth Order	Female n= 57		Male n= 124		Total n= 181	
	N	%	N	%	N	%
First	25	43.9	62	50	87	48.1
Second	23	40.4	40	32.3	63	34.8
Third	8	14	14	11.3	22	12.2
Fourth	1	1.8	6	4.8	7	3.9
Fifth	-	-	2	1.6	2	1.1

Among the female participants 15.8 % (n= 9), 16.1 % (n=20) of male participants and 16 % (n= 29) of all participants are single children. Almost half of the participants, both males and females, (Total: 45.9 %, n= 83, Males: 46 %, n= 57, Females: 45.6 %, n= 26) have one sibling whereas the percent of participants who have four or more siblings is only 3.9 % (n= 7). Table 5 shows the detailed distribution of the participants' number of siblings.

Table 5. Number of Siblings of the Participants

Number of Siblings	Female n= 57		Male N= 124		Total n= 181	
	N	%	N	%	N	%
Single child	9	15.8	20	16.1	29	16
One sibling	26	45.6	57	46	83	45.9
Two siblings	17	29.8	32	25.8	49	27.1
Three siblings	4	7	9	7.3	13	7.2
Four or more siblings	1	1.8	6	4.8	7	3.9

Among both male and female participants, the mostly reported father's education level is secondary school level (31.6 % for females, 29.8 % for males) while "can't read and write", "can read and write" and "other" levels are not reported by any of the females.

One of the male participants (.8 %) reported that his father "can read and write but did not graduate from any school" and one of the male participants (.8 %) reported that his father has a master's degree. Detailed information about the education levels of participants' fathers is shown in Table 6.

Table 6. Education Levels of Participants' Fathers

Father Education Level	Female N= 57		Male N= 124		Total N= 181	
	N	%	N	%	N	%
Can't read and write	-	-	2	1.6	2	1.1
Can read and write	-	-	1	.8	1	.6
Primary School	9	15.8	29	23.4	38	21
Secondary School	18	31.6	37	29.8	55	30.4
High School	13	22.8	26	21	39	21.5
University	17	29.8	28	22.6	45	24.9
Other	-	-	1	.8	1	.6

Among both male and female participants, the mostly reported mother's education level is primary school level (38.6 % for females, 31.5 % for males) while "can't read and write" and "can read and write" levels are not reported by any of the females and "other" level is not reported by any of the males. Among the male participants, 6.5 % (n= 8) reported that their mother "can't read and write", 4 % (n= 5) reported that their mother "can read and write but did not graduate from any school" and one of the female participants (1.8 %) reported that her mother has a two-year-college degree. Table 7 shows the education levels of participants' mothers in more detail.

Table 7. Education Levels of Participants' Mothers

Mother Education Level	Female N= 57		Male n= 124		Total n= 181	
	N	%	N	%	N	%
Can't read and write	-	-	8	6.5	8	4.4
Can read and write	-	-	5	4	5	2.8
Primary School	22	38.6	39	31.5	61	33.7
Secondary School	16	28.1	35	28.2	51	28.2
High School	11	19.3	22	17.7	33	18.2
University	7	12.3	15	12.1	22	12.2
Other	1	1.8	-	-	1	.6

Instruments

Demographic Information Form

Participants' demographic information was collected via the Demographic Information Form (see appendix A) which was developed by the researcher. The form included the short purpose of the study, questions about the name, gender, age, school, grade, father's level of education, mother's level of education, number of siblings and birth order of the participant. Names of the participants were asked since academic achievement was not measured by the reported GPA's. GPA's of the participants were taken from the counselors of the schools and in order to match the instruments and GPA's of the participants, their names had to be asked in the Demographic Information Form.

Multidimensional Students' Life Satisfaction Scale (MSLSS)

In order to measure life satisfaction, the Turkish Form of Multidimensional Students' Life Satisfaction Scale (MSLSS) was used (see appendix B). The MSLSS was developed by E. Scott Huebner in 1994 to measure children's satisfaction with specific domains (e.g., family, school, friends) of their lives and their overall life satisfaction. It can be used effectively with children across a wide range of ages (grades 3–12) and ability levels (e.g., gifted children, children with mild mental disabilities) (Huebner, 2001). It is a 40 item 6-point Likert type scale and has 5 domains. Items in Friends domain are 1, (-) 4, 11, 12, 16, (-) 23, (-) 24, 29, 38; items in Family domain are 7, 8, 18, 19, 21, 28, 30; items in School domain are (-) 3, 6, (-)

9, (-) 13, 20, 22, 25, 26; items in Living Environment domain are 15, (-) 27, 31, (-) 32, (-) 34, 36, 37, (-) 39, 40; and items in Self domain are 2, 5, 10, 14, 17, 33, 35. Items with (-) are reverse items (Canbek, 2006).

Factor analyses, conducted on samples of children in grades 6– 8 (Huebner et al., 1998; as cited in Huebner & Gilman, 2002) and grades 9–12 (Gilman et al., 2000) have provided support for the multidimensional hierarchical model which also consists of a general life satisfaction factor along with five specific domains (family, friends, school, self and living environment).

In order to test the psychometric properties of the MSLSS, Huebner (1994; as cited in Huebner & Gilman, 2002) has administered the MSLSS to 312 students in grades 3–8, 413 students in grades 3–5, 291 students in grades 6–8 (Huebner et al., 1998; as cited in Huebner & Gilman, 2002), and 321 students in grades 9–12 in South Carolina (Gilman et al., 2000).

The MSLSS School domain correlated 0.68 with Epstein's and McPartland's the Quality of School Life Scale, the MSLSS friends domain correlated 0.56 with Asher et al.'s the Loneliness and Social Dissatisfaction Scale, the Family domain correlated 0.61 with Reynolds' and Kamphaus' the Parent Scale of the Behavioral Assessment Scale for Children, and the MSLSS Self domain correlated 0.62 with Marsh's General Self-Esteem scale of the Self-Description Questionnaire-I (Huebner & Gilman, 2002). The MSLSS domains correlated 0.88 with the SLSS (Students' Life Satisfaction Scale) in a sample of adolescent students in grades 6–8 (Huebner, 2004).

Alpha coefficients for the MSLSS overall score ranged from 0.90 to 0.92. The internal consistency coefficients for the five domains ranged from 0.79 to 0.85 for the Family domain, 0.81 to 0.85 for the Friends domain, 0.83 to 0.85 for the

School domain, 0.72 to 0.84 for the Self domain, and 0.79 to 0.83 for the Living Environment domain (Huebner & Gilman, 2002). Test-retest coefficients (Dew, 1996; Huebner et al., 1998; as cited in Huebner & Gilman, 2002) for two- and four-week periods ranged between 0.70–0.90.

In order to test the psychometric properties of the MSLSS with a sample of adolescents in grades 9-12, a total of 321 students were covered from two high schools from an urban area of a Southeastern state. The mean age of the sample was 16.14 (SD = 1.1) while in terms of gender, 65% of the sample was female. The sample included 48 ninth-graders, 55 tenth-graders, 130 eleventh-graders, and 88 twelfth-graders. The inter-correlations among the MSLSS domains were found to be moderate, ranging from 0.27 (School, Friends) to 0.57 (Self, Friends), with a mean inter-factor correlation of 0.38 which indicated that the MSLSS domains were separable from each other (Gilman et al., 2000).

Convergent validity was assessed by comparing four MSLSS domain scores with similar measures from the Behavioral Assessment Scale for Children (BASC). The MSLSS Living Environment domain couldn't be evaluated since the Behavioral Assessment Scale for Children does not include a comparable scale. Correlation coefficient between the MSLSS School scale and the BASC Attitude Toward School Scale was -0.70, between the MSLSS Family scale and the BASC Parental Relations scale it was 0.61, between the MSLSS Self scale and the BASC Self-Esteem scale it was 0.56, and between the MSLSS Friends scale and the BASC Interpersonal Relations scale it was 0.39 (Gilman et al., 2000). The MSLSS Overall score was found to be moderately and positively related to the BASC Adaptive scales, whereas it was negatively correlated with the BASC clinical scales. The

Overall score correlated highest with the BASC Depression scale (r = -0.61) (Gilman et al., 2000).

The internal consistency coefficient of the Overall scale was 0.91. The coefficient alphas for MSLSS domains were 0.86 (Family), 0.82 (Friends), 0.84 (School), 0.84 (Self) and 0.79 (Living Environment) (Gilman et al., 2000).

Significant differences were found for gender on the Friends domain, with females reporting higher levels of satisfaction than males. Significant differences for race were obtained on the Family domain, the Self domain and the Overall score, with African-American respondents showing higher levels of life satisfaction than their Caucasian peers. Significant differences were observed for socioeconomic status on the Self domain, on which lower SES respondents reported higher satisfaction scores than higher SES students. No significant differences were found for age and grade (Gilman et al., 2000)

The scale was adapted to Turkish by Asım Çivitci in 2005 with a sample of 688 elementary school students under the name of "Çok Boyutlu Öğrenci Yaşam Doyumu Ölçeği" (ÇÖYDÖ). The results of factor analyses confirmed the 5 dimensional construct of the scale (Çivitci, 2007). The final form of the scale included 36 items which explained 44.5 % of the total variance and had factor loadings between .34 and .81. The inter-correlations of the domains of ÇÖYDÖ were found to be between .19 and .40 (Çivitci, 2007). The internal consistency coefficients of ÇÖYDÖ were found to be between .70 and .87 whereas two-week test-retest reliability coefficients ranged between .70 and .86 (Çivitci, 2007).

The validity and reliability study of the scale on Turkish adolescents in grades between 9-12 was conducted by Sonay Canbek (2006), under the name of "Lise Öğrencilerinde Çok Boyutlu Yaşam Doyum Ölçeği" (LÖÇBYDÖ) with 189

students attending two high schools in İstanbul. All items except 2, 14 and 17 have come under the same domains as in the original scale at the end of factor analyses. It was found that five domains explain 45,6 % of the total variance. Item-total correlations for the Friends domain ranged between 0.38 and 0.67; for the Family domain it ranged between 0.48 and 0.67; for the School domain it ranged between 0.29 and 0.64; for the Living Environment domain the range was between 0.34 and 0.61 and for the Self domain the range was between 0.24 and 0.46. The correlation coefficients between domains were in the range of 0.15 and 0.42 which are statistically significant (Canbek, 2006).

The discriminant validity of the scale was tested by correlating the domain scores and overall score of LÖÇBYDÖ with the State-Trait Anxiety Scale scores and the Children's Depression Inventory scores and negative and statistically significant correlations were found (Canbek, 2006).

Internal consistency coefficients of the domains were: .80 (Friends), .84 (Family), .67 (School), .78 (Living Environment), and .62 (Self) ($p < 0,001$). 3-week test-retest reliability coefficients were .65 (Friends), .71 (Family), .71 (School), .64 (Living Environment), and .65 (Self) ($p < 0,001$) (Canbek, 2006).

Multidimensional Perfectionism Scale (FMPS)

Perfectionism was measured with Multidimensional Perfectionism Scale (F), which was developed by Frost, Marten, Lahart and Rosenblate in 1990 (see appendix C). The scale has six dimensions: excessive concern over making mistakes, high personal standards, the perception of high parental expectations, the perception of excessive parental criticism, the doubting of the quality of one's

actions, and a preference for order and organization. Frost et al. (1990) found that the major dimension of the scale was excessive concern over making mistakes whereas organization subscale was found to have low correlations with overall perfectionism and the other 5 subscales. The scale is a 5-point Likert type scale and has 35 items.

The psychometric properties of the scale were tested with two all-female undergraduate samples (n= 232 and n= 178). Internal consistency of the overall scale was .90 whereas internal consistency values for the subscales ranged between .77 and .93. (.88 for excessive concern over making mistakes, .83 for personal standards, .84 for parental expectations, .84 for parental criticism, .77 for doubts about actions, and .93 for organization) (Frost et al., 1990). Six dimensions explained 54% of the total variance. Parker and Adkins (1995a; as cited in Enns & Cox, 2002) tested psychometric properties of FMPS with a mixed-gender sample of undergraduate students (n= 278) and found that the internal consistencies of the subscales ranged between .57 (parental expectations) and .95 (organization). Factor analyses confirmed the factor structure suggested by the original work of Frost et al. (1990).

In order to find concurrent validity of the scale, the subscales of FMPS were compared to the subscales of HMPS. Enns and Cox (2002) reported that according to the results of four studies, the correlation coefficients among the dimensions of Frost's MPS and Hewitt and Flett's MPS are as follows:

Correlation coefficients between "concern over mistakes" and "self-oriented perfectionism" ranged between .38 and .53, between "concern over mistakes" and "socially-prescribed perfectionism" they ranged between .49 and .70 and between

“concern over mistakes” and “other-oriented perfectionism” they ranged between .18 and .42.

Correlation coefficients between “doubts about actions” and “self-oriented perfectionism” ranged between .16 and .43, between “doubts about actions” and “socially-prescribed perfectionism” they ranged between .28 and .48 and between “doubts about actions” and “other-oriented perfectionism they ranged between .01 and .32.

Correlation coefficients between “personal standards” and “self-oriented perfectionism” ranged between .61 and .66, between “personal standards” and “socially-prescribed perfectionism” the range was between .16 and .49 and between “personal standards” and “other-oriented perfectionism the range was between .33 and .42.

Correlation coefficients between “parental expectations” and “self-oriented perfectionism” ranged between .24 and .47, between “parental expectations” and “socially-prescribed perfectionism” the range was between .49 and .67 and between “parental expectations” and “other-oriented perfectionism the range was between .17 and .40.

Correlation coefficients between “parental criticism” and “self-oriented perfectionism” ranged between .07 and .38, between “parental criticism” and “socially-prescribed perfectionism” the range was between .47 and .53 and between “parental criticism” and “other-oriented perfectionism it was between .07 and .22.

Correlation coefficients between “organization” and “self-oriented perfectionism” ranged between .15 and .29, between “organization” and “socially-prescribed perfectionism” the range was between -.02 and .30 and between

“organization” and “other-oriented perfectionism the range was between .04 and .15.

FMPS was adapted to Turkish by Yaşar Özbay and Özlem Mısırlı Taşdemir in 2003. The adaptation study was conducted on 489 high school students. Factor analyses confirmed the six dimensional structure of the adapted scale as it was in the original scale. Six dimensions explained 47.8% of the total variance. Cronbach Alpha and split-half reliability studies were conducted and it was found that Cronbach Alpha for the Overall scale was .83 (Özbay & Taşdemir, 2003). The alpha coefficients of the dimensions ranged from .61 to .87 (.87 for organization, .77 for excessive concern over mistakes, .61 for doubts about actions, .71 for parental expectations, .65 for parental criticism and .63 for personal standards) (Özbay & Taşdemir, 2003). The split-half reliability of the scale was .80 (Özbay & Taşdemir, 2003).

In the adaptation study, the 4th item which belongs to the “personal standards” dimension in the original scale fell under the dimension of “excessive concern over mistakes” whereas the 34th item which belongs to the “excessive concern over mistakes” dimension in the original scale fell under the dimension of “doubts about actions” (Özbay & Taşdemir, 2003). According to the results of the adaptation study, the factors and the items that belong to each factor are as follows: 6 items under the “organization” factor (2, 7, 8, 27, 29, and 31), 9 items under the “excessive concern over mistakes” factor (4, 9, 10, 13, 14, 18, 21, 23 and 25), 5 items under the “doubts about actions” factor (17, 28, 32, 33 and 34), 5 items under the “parental expectations” factor (1, 11, 15, 20 and 26), 4 items under the “parental criticism” factor (3, 5, 22 and 35) and 6 items under the “personal standards” factor (6, 12, 16, 19, 24 and 30).

Research Design

The design of the study is correlational design in which the relationship between two or more already existing groups is investigated. The independent variable of the study is the level of perfectionism which was measured via the Turkish Form of Frost Multidimensional Perfectionism Scale (Frost et al., 1990). The dependent variables of the study are life satisfaction which was measured via the Turkish Form of Multidimensional Students' Life Satisfaction Scale (Huebner, 1994; as cited in Huebner & Gilman, 2002) and academic achievement which was measured via 9th grade GPA's of the students.

Procedures and Data Analyses

Three high schools in İstanbul were chosen purposively on the basis of their level of success on ÖSS-2006 and convenience in terms of location and availability for the researcher. Schools were classified in 3 groups as high, moderate and low based on their success levels.

After the schools were identified and selected, the permission that was required to conduct the study was attained from the National Ministry of Education and the principals of the schools were informed about the study. Help was requested from the school counselors to identify and recruit the 10th grade students who would participate in the study. Then, the participants were informed why the study was conducted and how they were selected and their informed consent was taken.

All the 10th graders in all three schools were approached and in total 200, 10th grade students from 3 schools were administered the tools for data collection

but 19 of the cases were discarded due to incomplete questionnaires and only 181 of the cases could be analyzed.

In the data collection period, Demographic Information Form, FMPS and MSLSS were administered by the researcher to the participants. Since participants' instruments had to be matched with their GPA's, data could not be collected anonymously and participants were asked to write their names and surnames on the Demographic Information Form. Since this may increase the possibility of reservation and social desirability, participants were reminded that after their GPA's were matched with their instruments, their names would be erased from the Demographic Information Forms by the researcher so that, even if the data were coded and analyzed by someone other than the researcher, their information would not be shared with anyone.

After the instruments were administered, participants' 9th grade GPA's were attained from the counselors of the schools and were matched with the instruments filled out by each participant. After this operation, the names of the participants were erased from the Demographic Information Forms by the researcher.

In the phase of data coding, dimension scores and overall scores were computed by the researcher and her sister. Data entries were done by the researcher. Data were analyzed by using SPSS 16.0 (Statistical Package for the Social Sciences) by the researcher.

CHAPTER IV: RESULTS

Results are presented in three sections as follows: 1 Descriptive results of the study variables, 2) Results of the statistical analyses related to the research questions and 3) Results of additional analyses

Descriptive Results of the Study Variables

Mean and Standard Deviation Values of Perfectionism Dimensions, Overall, Adaptive and Maladaptive Perfectionism, Overall Life Satisfaction, Its Dimensions and Academic Achievement

Table 8 displays the mean scores, standard deviations (females and males separately) and t values on the measures of overall perfectionism, its dimensions (organization, concern over mistakes, doubts about actions, parental expectations, parental criticism and personal standards), adaptive perfectionism, maladaptive perfectionism, overall life satisfaction, its dimensions (friend satisfaction, family satisfaction, school satisfaction, living environment satisfaction and self satisfaction) and academic achievement.

It can be stated that both males and females are slight perfectionists (M= 2.94 for females and M= 3.08 for males out of 5). The minimum scores were reported on parental criticism dimension (M= 1.97 out of 5 for females which means that female students' parents are not perceived as critical and M= 2.52 for males out of 5 which means that male students' parents are perceived somewhat

critical) whereas the maximum scores were reported on need for organization dimension (M= 3.89 for females and M= 3.67 for males out of 5) both by males and females which indicates that both male and female students have quite high need for organization. Both female and male students are slightly concerned over their mistakes (M= 2.49 for females and M= 2.79 for males out of 5) while both male and female students have some doubts about their actions (M= 2.63 for females and M= 2.78 for males out of 5). Parents are perceived as having slightly high expectations from their children both for male and female students (M= 3.22 for females and M= 3.39 for males out of 5). Both male and female students have somewhat high personal standards (M= 3.32 for females and M= 3.31 for males out of 5). Female students are adaptive perfectionists whereas male students are slightly adaptive perfectionists. Both male and female students are slightly maladaptive perfectionists (M= 2.6 for females and M= 2.86 for males out of 5).

Both males and females are satisfied with their lives (M= 4.98 for females and M= 4.56 for males out of 6), the minimum scores were reported on school satisfaction both by females and males (M= 4.49 out of 6 for females which means that they are satisfied from school and M= 3.86 out of 6 for males which means that they are slightly satisfied from school). The maximum scores were reported on friend satisfaction dimension by females (M= 5.41 out of 6) and on self satisfaction dimension by males (M= 4.96 out of 6).

Table 8. Means (M) and Standard Deviations (SD) for the Study Measures and t values for Gender Differences

Measures and submeasures	Female N= 57 M	Female N= 57 SD	Male N= 124 M	Male N= 124 SD	Total N= 181 M	Total N= 181 SD	Gender Difference T
Overall Perfectionism	102.79 (2.94)	14.68 (.42)	107.69 (3.08)	19.25 (.55)	106.15 (3.03)	18.04 (.52)	-1.71
Organization	23.32 (3.89)	5.97 (1)	22.02 (3.67)	6.8 (1.13)	22.43 (3.74)	6.56 (1.09)	1.23
Concern over Mistakes	22.42 (2.49)	5.46 (.61)	25.07 (2.79)	7.09 (.79)	24.24 (2.69)	6.72 (.75)	-2.5*
Doubts about Actions	13.14 (2.63)	3.52 (.70)	13.92 (2.78)	3.72 (.74)	13.67 (2.73)	3.66 (.73)	-1.33
Parental Expectations	16.12 (3.22)	4.46 (.89)	16.97 (3.39)	4.57 (.91)	16.7 (3.34)	4.54 (.91)	-1.16
Parental Criticism	7.86 (1.97)	3.13 (.78)	10.08 (2.52)	3.57 (.89)	9.38 (2.35)	3.58 (.9)	-4.04**
Personal Standards	19.93 (3.32)	4.04 (.67)	19.85 (3.31)	4.4 (.73)	19.87 (3.31)	4.28 (.71)	.12
Adaptive Perfectionism	42.95 (3.58)	8.24 (.69)	41.87 (3.49)	9.88 (.82)	42.21 (3.52)	9.38 (.78)	.72
Maladaptive Perfectionism	59.84 (2.6)	12.55 (.55)	65.82 (2.86)	13.68 (.59)	63.94 (2.78)	13.59 (.59)	-2.8**
Overall Life Satisfaction	199.04 (4.98)	20.04 (.5)	182.25 (4.56)	26.13 (.65)	187.54 (4.69)	25.55 (.64)	4.3**
Friend Satisfaction	48.65 (5.41)	3.91 (.43)	43.82 (4.87)	8.02 (.89)	45.34 (5.04)	7.33 (.81)	4.31**
Family Satisfaction	36.56 (5.22)	5.92 (.85)	33.69 (4.81)	6.42 (.92)	34.59 (4.94)	6.39 (.91)	2.87**
School Satisfaction	35.89 (4.49)	8.3 (1.04)	30.84 (3.86)	8.15 (1.02)	32.43 (4.05)	8.5 (1.06)	3.86**
Living Environment Satisfaction	42.18 (4.69)	6.95 (.77)	39.19 (4.35)	8.47 (.94)	40.13 (4.46)	8.13 (.9)	2.32*
Self Satisfaction	36.3 (5.19)	3.76 (.54)	34.71 (4.96)	5.19 (.74)	35.21 (5.03)	4.83 (.69)	2.07*
GPA	3.95	.62	3.43	.65	3.6	.68	5.06**

* Significant group difference at $p < .05$ (2-tailed)
** Significant group difference at $p < .01$ (2-tailed)

Note: 1) Adaptive Perfectionism (Positive Achievement Striving: Organization + Personal Standards), Maladaptive Perfectionism (Maladaptive Evaluative Concerns: Concern over Mistakes + Doubts about Actions + Parental Expectations + Parental Criticism). 2) Values in parentheses represent the reduced version of mean scores on a 5-point scale for perfectionism, its dimensions, adaptive and maladaptive perfectionism whereas they represent the reduced version of mean scores on a 6-point scale for life satisfaction and its dimensions.

Briefly, it can be stated that both males and females are satisfied with their friends (M= 5.41 out of 6 for females, M= 4.87 out of 6 for males); with their families (M= 5.22 out of 6 for females, M= 4.81 out of 6 for males) and with themselves (M= 5.19 out of 6 for females, M= 4.96 out of 6 for males). Females are satisfied with the environment they live in (M= 4.69 out of 6) whereas males are slightly satisfied with the environment in which they live (M= 4.35 out of 6).

The mean GPA of the female students was 3.95 out of 5 whereas it was 3.43 for males and 3.6 for the total sample.

Results Related to Research Questions

The main aim of the study was twofold. One was to investigate whether excessive concern over mistakes, high personal standards, doubts about actions, need for organization, high parental expectations, excessive parental criticism, overall perfectionism, adaptive and/or maladaptive perfectionism could – together or separately – significantly predict academic achievement of male and female high school students. The other main aim of the study was to investigate whether the perfectionism dimensions stated above, overall perfectionism, adaptive and/or maladaptive perfectionism could – together or separately – significantly predict overall life satisfaction, friend satisfaction, family satisfaction, school satisfaction, living environment satisfaction and/or self satisfaction of male and female high school students.

In order to test these research questions, Multiple Regression analyses (Stepwise Regression/Forward) were performed with SPSS 16.0.

Predictors of Academic Achievement

Stepwise regression analyses revealed that only excessive parental criticism significantly and negatively predicted academic achievement ($F(1, 55) = 9.333$, $p < .01$) for the females and explained 14.5 % of the variance in academic achievement. For other perfectionism dimensions, overall, adaptive and maladaptive perfectionism t and β values were not significant (see Table 9).

Neither perfectionism dimensions nor overall, adaptive and maladaptive perfectionism predicted academic achievement for males.

Table 9. Regression Coefficients and Model Summary of GPA by PC for Females

R	R Square	F	T	Sig.	β
.381 [a]	.145	9.333	-3.055	.003 [a]	-.381

a. Predictors: PC

Excluded Variables

Model	Beta In	T	Sig.
OR	-.057[a]	-.408	.685
CM	-.031[a]	-.242	.810
DA	.060[a]	.469	.641
PE	-.207[a]	-1.632	.108
PS	-.005[a]	-.037	.970
OP	-.078[a]	-.616	.540
AP	.034[a]	.242	.810
MP	-.135[a]	-.964	.339

a. Predictors in the Model: PC

b. Dependent Variable: GPA

Predictors of Friend Satisfaction

Stepwise regression analyses revealed that only excessive parental criticism significantly and negatively predicted friend satisfaction ($F(1, 122) = 7.290$, $p < .01$) for males and explained 5.6 % of the variance. For other perfectionism dimensions, overall, adaptive and maladaptive perfectionism t and β values were not significant (see Table 10).

Neither perfectionism dimensions nor overall, adaptive and maladaptive perfectionism significantly predicted friend satisfaction for females.

Table 10. Regression Coefficients and Model Summary of FRS by PC for Males

R	R Square	F	T	Sig.	β
.237 [a]	.056	7.290	-2.700	.008 [a]	-.237

a. Predictors: PC

Excluded Variables

Model	Beta In	T	Sig.
OR	.168[a]	1.865	.065
CM	.061[a]	.595	.553
DA	.039[a]	.377	.707
PE	.089[a]	1.006	.317
PS	.104[a]	1.178	.241
OP	.171[a]	1.819	.071
AP	.160[a]	1.805	.074
MP	.172[a]	1.467	.145

a. Predictors in the Model: PC

b. Dependent Variable: FRS

Predictors of Family Satisfaction

Only need for organization entered the model for family satisfaction for the male group. Need for organization significantly and positively predicted family satisfaction (F (1, 122) = 15.025, p< .01) and explained 11 % of the variance. For other perfectionism dimensions, overall, adaptive and maladaptive perfectionism t and β values were not significant (see Table 11).

Table 11. Regression Coefficients and Model Summary of FMS by OR for Males

R	R Square	F	T	Sig.	β
.331 [a]	.110	15.025	3.876	.000 [a]	.331

a. Predictors: OR

Excluded Variables

Model	Beta In	T	Sig.
CM	-.064[a]	-.732	.465
DA	-.118[a]	-1.372	.173
PE	-.122[a]	-1.291	.199
PC	-.105[a]	-1.186	.238
PS	.020[a]	.196	.845
OP	-.131[a]	-1.216	.226
AP	.045[a]	.196	.845
MP	-.125[a]	-1.437	.153

a. Predictors in the Model: OR

b. Dependent Variable: FMS

Only excessive parental criticism significantly and negatively predicted family satisfaction (F (1, 55) = 16.578, p< .01) for females and explained 23.2 % of the variance. For other perfectionism dimensions, overall, adaptive and maladaptive perfectionism t and β values were not significant (see Table 12).

Table 12. Regression Coefficients and Model Summary of FMS by PC for Females

R	R Square	F	T	Sig.	β
.481 [a]	.232	16.578	-4.072	.000 [a]	-.481

a. Predictors: PC

Excluded Variables

Model		Beta In	T	Sig.
1	OR	.148[a]	1.134	.262
	CM	.039[a]	.329	.744
	DA	.009[a]	.072	.943
	PE	.033[a]	.269	.789
	PS	.056[a]	.454	.652
	OP	.091[a]	.759	.451
	AP	.107[a]	.805	.425
	MP	.061[a]	.458	.649

a. Predictors in the Model: PC

b. Dependent Variable: FMS

Predictors of School Satisfaction

Only need for organization entered the model for school satisfaction for the male group. Need for organization significantly and positively predicted school satisfaction ($F(1, 122) = 4.355$, $p < .05$) and explained 3.4 % of the variance in school satisfaction. For other perfectionism dimensions, overall, adaptive and maladaptive perfectionism t and β values were not significant (see Table 13).

Adaptive perfectionism positively, high parental expectations negatively and significantly predicted school satisfaction ($F(1, 55) = 8.468$, $p < .01$) for females and they, together, explained 23.9 % of the variance in school satisfaction. For other perfectionism dimensions, overall and maladaptive perfectionism t and β values were not significant and are presented in Table 14 both for Model 1 and Model 2.

Adaptive perfectionism is the factor which entered the model first with a value of F (1, 55) = 12.154, p< .01 since it is the factor which makes the largest contribution to school satisfaction, for the female group. It individually explained 18.1 % of the variance and positively predicted school satisfaction (t= 3.486, p<. 01). High parental expectations, on the other hand, entered the model as the second factor and makes a significant and negative contribution to school satisfaction (t= -2.024, p< .05).

Table 13. Regression Coefficients and Model Summary of SCS by OR for Males

R	R Square	F	t	Sig.	β
.186 [a]	.034	4.355	2.087	.039 [a]	.186

a. Predictors: OR

Excluded Variables

Model	Beta In	T	Sig.
CM	-.065[a]	-.714	.477
DA	.012[a]	.136	.892
PE	-.048[a]	-.482	.631
PC	.053[a]	.579	.564
PS	.034[a]	.324	.747
OP	-.012[a]	-.106	.916
AP	.077[a]	.324	.747
MP	-.019[a]	-.210	.834

a. Predictors in the Model: OR

b. Dependent Variable: SCS

Table 14. Regression Coefficients and Model Summary of SCS by AP and PE for Females

R	R Square	F	t	Sig.	β
.425 [a]	.181	12.154	3.486	.001 [a]	.425
.489 [b]	.239	8.468	3.982 (AP)	.001 [b]	.489 (AP)
			-2.024 (PE)	.048 [b]	-.249 (PE)

a. Predictors: AP
b. Predictors: AP, PE

Excluded Variables

Model		Beta In	T	Sig.
1	OR	-.027[a]	-.108	.915
	CM	-.080[a]	-.648	.520
	DA	-.093[a]	-.758	.452
	PE	-.249[a]	-2.024	.048
	PC	-.018[a]	-.131	.896
	PS	.016[a]	.090	.929
	OP	-.173[a]	-1.214	.230
	MP	-.148[a]	-1.214	.230
2	OR	-.007[b]	-.029	.977
	CM	-.006[b]	-.051	.960
	DA	-.007[b]	-.051	.960
	PC	.116[b]	.789	.434
	PS	.048[b]	.280	.781
	OP	.050[b]	.253	.801
	MP	.043[b]	.253	.801

a. Predictors in the Model: AP

b. Predictors in the Model: AP, PE

c. Dependent Variable: SCS

Predictors of Living Environment Satisfaction

Stepwise regression analyses showed that only need for organization entered the model for living environment satisfaction for females. Need for organization significantly and positively predicted living environment satisfaction ($F(1, 55) = 5.909$, $p < .05$) and explained 9.7 % of the total variance. For other perfectionism

dimensions, overall, adaptive and maladaptive perfectionism t and β values were not significant (see Table 15).

Table 15. Regression Coefficients and Model Summary of LES by OR for Females

R	R Square	F	T	Sig.	β
.311 [a]	.097	5.909	2.431	. 018[a]	.311

a. Predictors: OR

Excluded Variables

Model	Beta In	T	Sig.
CM	.028[a]	.213	.832
DA	-.004[a]	-.029	.977
PE	.020[a]	.153	.879
PC	-.184[a]	-1.306	.197
PS	.051[a]	.363	.718
OP	-.006[a]	-.042	.967
AP	.036[a]	.135	.893
MP	-.011[a]	-.086	.932

a. Predictors in the Model: OR

b. Dependent Variable: LES

Neither perfectionism dimensions nor overall, adaptive and maladaptive perfectionism significantly predicted living environment satisfaction for males.

Predictors of Self Satisfaction

For males, only high personal standards entered the model for self satisfaction. High personal standards significantly and positively predicted self satisfaction ($F(1, 122) = 12.241$, $p < .01$) and explained 9.1 % of the total variance. For other perfectionism dimensions, overall, adaptive and maladaptive perfectionism t and β values were not significant (see Table 16).

Table 16. Regression Coefficients and Model Summary of SELFS by PS for Males

R	R Square	F	T	Sig.	β
.302 [a]	.091	12.241	3.499	. 001[a]	.302

a. Predictors: PS

Excluded Variables

Model	Beta In	T	Sig.
OR	-.051[a]	-.501	.617
CM	-.156[a]	-1.729	.086
DA	-.141[a]	-1.608	.111
PE	.106[a]	1.018	.311
PC	-.008[a]	-.088	.930
OP	-.088[a]	-.713	.477
AP	-.075[a]	-.501	.617
MP	-.052[a]	-.542	.589

a. Predictors in the Model: PS

b. Dependent Variable: SELFS

Table 17. Regression Coefficients and Model Summary of SELFS by PS for Females

R	R Square	F	T	Sig.	β
.392 [a]	.154	10.012	3.164	.003[a]	.392

a. Predictors: PS

Excluded Variables

Model	Beta In	T	Sig.
OR	-.077[a]	-.567	.573
CM	-.037[a]	-.289	.774
DA	-.107[a]	-.858	.395
PE	-.089[a]	-.694	.491
PC	-.019[a]	-.146	.884
OP	-.137[a]	-.915	.364
AP	-.026[a]	-.146	.884
MP	-.105[a]	-.833	.408

a. Predictors in the Model: PS

b. Dependent Variable: SELFS

Similar to males, only high personal standards entered the model for self satisfaction for females. High personal standards significantly and positively predicted self satisfaction (F (1, 55) = 10.012, p< .01) and explained 15.4 % of the total variance. For other perfectionism dimensions, overall, adaptive and maladaptive perfectionism t and β values were not significant (see Table 17).

Predictors of Overall Life Satisfaction

Only adaptive perfectionism entered the model for predicting overall life satisfaction for males. Adaptive perfectionism significantly and positively predicted overall life satisfaction (F (1, 122) = 9.854, p< .01) and explained 7.5 % of the total variance. For the perfectionism dimensions, overall and maladaptive perfectionism t and β values were not significant (see Table 18).

Table 18. Regression coefficients and model summary of OLS by AP for males

R	R Square	F	T	Sig.	β
.273 [a]	.075	9.854	3.139	.002[a]	.273

a. Predictors: AP

Excluded Variables

Model	Beta In	T	Sig.
OR	.039[a]	.168	.867
CM	-.134[a]	-1.485	.140
DA	-.100[a]	-1.131	.260
PE	-.029[a]	-.279	.781
PC	-.070[a]	-.792	.430
PS	-.025[a]	-.168	.867
OP	-.127[a]	-.986	.326
MP	-.091[a]	-.986	.326

a. Predictors in the Model: AP

b. Dependent Variable: OLS

Similar to males, only adaptive perfectionism entered the model for predicting overall life satisfaction for females. Adaptive perfectionism significantly and positively predicted overall life satisfaction ($F(1, 55) = 13.652$, $p < .01$) and explained 19.9 % of the total variance for females. For the perfectionism dimensions, overall and maladaptive perfectionism t and β values were not significant (see Table 19).

Table 19. Regression coefficients and model summary of OLS by AP for females

R	R Square	F	T	Sig.	β
.446 [a]	.199	13.652	3.695	.001[a]	.446

a. Predictors: AP

Excluded Variables

Model	Beta In	T	Sig.
OR	.041[a]	.163	.871
CM	-.020[a]	-.165	.869
DA	-.058[a]	-.472	.639
PE	-.078[a]	-.621	.537
PC	-.228[a]	-1.711	.093
PS	.018[a]	.106	.916
OP	-.103[a]	-.728	.470
MP	-.088[a]	-.728	.470

a. Predictors in the Model: AP

b. Dependent Variable: OLS

Results of Additional Analyses

Differences in the Level of Perfectionism Dimensions, Overall, Adaptive and Maladaptive Perfectionism, Overall Life Satisfaction, Its Dimensions and Academic Achievement According to Gender

As seen in Table 8, significant gender differences were found for excessive concern over mistakes ($t= -2.5$, $p< .05$), for excessive parental criticism ($t= -4.04$, $p< .01$), for maladaptive perfectionism ($t= -2.8$, $p< .01$), for overall life satisfaction ($t= 4.3$, $p< .01$), for friend satisfaction ($t= 4.31$, $p< .01$), for family satisfaction ($t= 2.87$, $p< .01$), for school satisfaction ($t= 3.86$, $p< .01$), for living environment satisfaction ($t= 2.32$, $p< .05$), for self satisfaction ($t= 2.07$, $p< .05$) and for academic achievement ($t= 5.06$, $p< .01$). For concern over mistakes, parental criticism and maladaptive perfectionism, males tended to get significantly higher scores than females whereas females got significantly higher scores than males on overall life satisfaction and on all of its dimensions (friend satisfaction, family satisfaction, school satisfaction, living environment satisfaction and self satisfaction). Females were found to have significantly higher scores than males on academic achievement variable, too.

Differences in the Level of Perfectionism Dimensions, Overall, Adaptive and Maladaptive Perfectionism, Overall Life Satisfaction, Its Dimensions and Academic Achievement According to Father's and Mother's Education Level

In order to investigate if the level of academic achievement, life satisfaction and its dimensions, perfectionism and its dimensions, adaptive and maladaptive perfectionism show significant differences according to fathers' and mothers' education levels, one-way ANOVA was conducted. The Scheffe Test was carried out, as the Post-Hoc, to see which groups differ significantly from each other on the related variables. Table 20. shows F values whereas Table 21. shows the group differences that were obtained at the end of The Scheffe Test.

As seen in Table 20. groups differed only on Academic Achievement and School Satisfaction according to both fathers' and mothers' education level. Groups differed significantly on GPA according to fathers' education level ($F= 7.296$, $p< .01$) and mothers' education level ($F= 3.348$, $p< .01$).

Participants whose fathers graduated from university and/or have graduate education had significantly higher GPA's than participants whose fathers did not graduate from any school (mean difference [m. d.]= 1.23, $p< .05$) and than participants whose fathers graduated from primary school (m. d. = .65, $p< .05$), secondary school (m. d. = .43, $p< .05$) and high school (m. d. = .46, $p< .05$) (see Table 21.). Participants whose mothers graduated from college and/or had graduate degree, had significantly higher GPA's than participants whose mothers could not read and write (m. d. = .84, $p< .05$) and than participants whose mothers graduated from primary school (m. d. = .45, $p< .05$) and secondary school (m. d. = .43, $p< .05$) (see Table 21.).

Table 20. Differences in GPA, FRS, FMS, SCS, LES, SELFS, OLS, OR, CM, DA, PE, PC, PS, OP, AP and MP according to Father's and Mother's Level of Education.

Independent Var.	Dependent Var.	F n= 181
Father Education	GPA	7.296**
Mother Education	GPA	3.348**
Father Education	FRS	1.471
Father Education	FMS	.723
Father Education	SCS	5.482**
Father Education	LES	.406
Father Education	SELFS	1.703
Father Education	OLS	1.629
Mother Education	FRS	1.054
Mother Education	FMS	.929
Mother Education	SCS	5.398**
Mother Education	LES	2.254
Mother Education	SELFS	2.332
Mother Education	OLS	2.743
Father Education	OR	1.99
Father Education	CM	.442
Father Education	DA	.454
Father Education	PE	.95
Father Education	PC	2.667
Father Education	PS	.88
Father Education	OP	.87
Father Education	AP	1.88
Father Education	MP	.798
Mother Education	OR	2.541
Mother Education	CM	.444
Mother Education	DA	.983
Mother Education	PE	2.433
Mother Education	PC	1.343
Mother Education	PS	.863
Mother Education	OP	1.294
Mother Education	AP	1.6
Mother Education	MP	.994

** Significant group difference at $p < .01$ (2-tailed)

Table 21. Groups that Differ significantly from each other in terms of GPA and School Satisfaction (SCS) according to Father and Mother Education Level

(I) Father Education	(J) Father Education	Mean Difference (I-J) GPA
University and above	No school graduation	1.23*
	Primary school	.65*
	Secondary school	.43*
	High school	.46*
(I) Mother Education	**(J) Mother Education**	**Mean Difference (I-J) GPA**
Above high school	Can't read and write	.84*
	Primary school	.45*
	Secondary school	.43*
(I) Father Education	**(J) Father Education**	**Mean Difference (I-J) SCS**
Secondary school	High school	5,38*
	University and above	6,98***
(I) Mother Education	**(J) Mother Education**	**Mean Difference (I-J) SCS**
Above high school	Primary school	-8.18**
	Secondary school	-8.44**

* Significant group difference at p < .05 (2-tailed)
** Significant group difference at p < .01 (2-tailed)
*** Significant group difference at p = .001 (2-tailed)

Groups differed significantly on school satisfaction according to father's education level (F= 5.482, p< .01) and mother's education level (F= 5.398, p< .01). As seen in Table 21, participants whose fathers graduated from secondary school had significantly higher school satisfaction scores than participants whose fathers graduated from high school (m. d. = 5.38, p< .05) and than participants whose fathers graduated from university and/or had graduate education (m. d.= 6.98, p= .001). Participants whose mothers graduated from college and/or university had significantly lower school satisfaction scores than participants whose mothers graduated from primary school (m. d. = -8.18, p< .01) and secondary school (m. d. = -8.44, p< .01).

Differences in the Level of Perfectionism Dimensions, Overall, Adaptive and Maladaptive Perfectionism according to Birth Order

In order to find out whether differences exist according to birth order in terms of perfectionism, independent samples t-test analysis was conducted. Two groups were formed as 1) First born child, and 2) Others (composed of second, third, fourth and fifth born children).

Table 22. Differences in Perfectionism Dimensions, Overall, Adaptive and Maladaptive Perfectionism according to Birth Order

	Birth Order	N	M	T
OP	1	87	104.89	-.91
	2	94	107.32	
AP	1	87	40.59	-2.27*
	2	94	43.71	
MP	1	87	64.30	.34
	2	94	63.61	
OR	1	87	21.13	-2.62**
	2	94	23.64	
CM	1	87	23.87	-.70
	2	94	24.57	
DA	1	87	13.95	.99
	2	94	13.41	
PE	1	87	16.51	-.56
	2	94	16.88	
PC	1	87	9.97	2.13*
	2	94	8.84	
PS	1	87	19.46	-1.25
	2	94	20.26	

**. Correlation is significant at the 0.01 level (2-tailed)
*. Correlation is significant at the 0.05 level (2-tailed)
Note: Birth Order 1: First born child, Birth Order 2: Other orders such as second, third, etc.

It has been found that groups differed significantly on adaptive perfectionism (t= -2.27, p< .05), organization (t= -2.62, p< .01) and excessive parental criticism (t= 2.13, p< .05). The "First born child" group had significantly lower adaptive perfectionism scores (M= 40.59) than the "Others" group (M= 43.71), the "First born child" group had significantly lower organization scores (M= 21.13) than the "Others" group (M= 23.64) and the "First born child" group had significantly higher excessive parental criticism scores (M= 9.97) than the "Others" group (M= 8.84). Distribution of group means and t values are presented in Table 22.

Inter-correlations of the MSLSS and FMPS Subscales

As additional analyses, inter-correlations among Multidimensional Students' Life Satisfaction Scale (MSLSS) dimensions and inter-correlations among Multidimensional Perfectionism Scale (FMPS) dimensions were computed with Pearson Product Moment Formula.

Friend satisfaction was found significantly and positively correlated with family satisfaction (r= .39, p< .01), school satisfaction (r= .35, p< .01), living environment satisfaction (r= .46, p< .01), self satisfaction (r= .50, p< .01) and overall life satisfaction (r= .74, p< .01) (see Table 23.).

Family satisfaction was found significantly and positively correlated with friend satisfaction (r= .39, p< .01), school satisfaction (r= .40, p< .01), living environment satisfaction (r= .42, p< .01), self satisfaction (r= .36, p< .01) and overall life satisfaction (r= .70, p< .01) (see Table 23.).

School satisfaction was found significantly and positively correlated with friend satisfaction (r= .35, p< .01), family satisfaction (r= .40, p< .01), living

environment satisfaction (r= .39, p< .01), self satisfaction (r= .38, p< .01) and overall life satisfaction (r= .73, p< .01) (see Table 23.).

Living environment satisfaction was found significantly and positively correlated with friend satisfaction (r= .46, p< .01), family satisfaction (r= .42, p< .01), school satisfaction (r= .39, p< .01), self satisfaction (r= .30, p< .01) and overall life satisfaction (r= .74, p< .01) (see Table 23.).

Self satisfaction was found significantly and positively correlated with friend satisfaction (r= .50, p< .01), family satisfaction (r= .36, p< .01), school satisfaction (r= .38, p< .01), living environment satisfaction (r= .30, p< .01) and overall life satisfaction (r= .65, p< .01) (see Table 23.).

Overall life satisfaction was found significantly and positively correlated with friend satisfaction (r= .74, p< .01), family satisfaction (r= .70, p< .01), school satisfaction (r= .73, p< .01), living environment satisfaction (r= .74, p< .01) and self satisfaction (r= .65, p< .01) (see Table 23.).

Table 23. Inter-correlations of the MSLSS Subscales and Overall Life Satisfaction

	FRS	FMS	SCS	LES	SELFS	OLS
FRS	1					
FMS	.39**	1				
SCS	.35**	.40**	1			
LES	.46**	.42**	.39**	1		
SELFS	.50**	.36**	.38**	.30**	1	
OLS	.74**	.70**	.73**	.74**	.65**	1

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

Organization dimension was found to be significantly and positively correlated with high parental expectations dimension (r= .37, p< .01), high personal standards dimension (r= .49, p< .01), overall perfectionism (r= .56, p< .01), adaptive perfectionism (r= .91, p< .01) and significantly and negatively correlated with excessive parental criticism dimension (r= -.31, p< .01) (see Table 24.).

Excessive concern over mistakes dimension was found to be significantly and positively correlated with doubts about actions dimension (r= .61, p<.01), high parental expectations dimension (r= .27, p< .01), excessive parental criticism dimension (r= .44, p< .01), high personal standards dimension (r= .30, p< .01), overall perfectionism (r= .75, p< .01), adaptive perfectionism (r= .21, p< .01) and maladaptive perfectionism (r= .85, p< .01) (see Table 24.).

Doubts about actions dimension was found to be significantly and positively correlated with excessive concern over mistakes dimension (r= .61, p<.01), high parental expectations dimension (r= .21, p< .01), excessive parental criticism dimension (r= .45, p< .01), high personal standards dimension (r= .17, p< .05), overall perfectionism (r= .62, p< .01) and maladaptive perfectionism (r= .76, p< .01) (see Table 24.).

High parental expectations dimension was found to be significantly and positively correlated with organization dimension (r= .37, p< .01), excessive concern over mistakes dimension (r= .27, p<.01), doubts about actions dimension (r= .21, p< .01), excessive parental criticism dimension (r= .17, p< .05), high personal standards dimension (r= .47, p< .01), overall perfectionism (r= .68, p< .01), adaptive perfectionism (r= .46, p< .01) and maladaptive perfectionism (r= .58, p< .01) (see Table 24.).

Excessive parental criticism dimension was found to be significantly and positively correlated with excessive concern over mistakes dimension (r= .44, p<.01), doubts about actions dimension (r= .45, p< .01), high parental expectations dimension (r= .17, p< .05), overall perfectionism (r= .34, p< .01), maladaptive perfectionism (r= .63, p< .01) and significantly and negatively correlated with organization dimension (r= -.31, p< .01) and adaptive perfectionism (r= -.27, p< .01) (see Table 24.).

High personal standards dimension was found to be significantly and positively correlated with organization dimension (r= .49, p< .01), excessive concern over mistakes dimension (r= .30, p<.01), doubts about actions dimension (r= .17, p< .05), high parental expectations dimension (r= .47, p< .01), overall perfectionism (r= .67, p< .01), adaptive perfectionism (r= .79, p< .01) and maladaptive perfectionism (r= .34, p< .01) (see Table 24.).

Overall perfectionism was found to be significantly and positively correlated with organization dimension (r= .56, p< .01), excessive concern over mistakes dimension (r= .75, p<.01), doubts about actions dimension (r= .62, p< .01), high parental expectations dimension (r= .68, p< .01), excessive parental criticism dimension (r= .34, p< .01), high personal standards dimension (r= .67, p< .01), adaptive perfectionism (r= .68, p< .01) and maladaptive perfectionism (r= .86, p< .01) (see Table 24.).

Adaptive perfectionism was found to be significantly and positively correlated with organization dimension (r= .91, p< .01), excessive concern over mistakes dimension (r= .21, p<.01), high parental expectations dimension (r= .46, p< .01), high personal standards dimension (r= .79, p< .01), overall perfectionism (r= .68, p< .01), maladaptive perfectionism (r= .21, p< .01) and significantly and

negatively correlated with excessive parental criticism dimension (r= -.27, p< .01) (see Table 24.).

Maladaptive perfectionism was found to be significantly and positively correlated with excessive concern over mistakes dimension (r= .85, p<.01), doubts about actions dimension (r= .76, p< .01), high parental expectations dimension (r= .58, p< .01), excessive parental criticism dimension (r= .63, p< .01), high personal standards dimension (r= .34, p< .01), overall perfectionism (r= .86, p< .01) and adaptive perfectionism (r= .21, p< .01) (see Table 24.).

Table 24. Inter-correlations of the FMPS Subscales, Overall, Adaptive and Maladaptive Perfectionism

	OR	CM	DA	PE	PC	PS	OP	AP	MP
OR	1								
CM	.13	1							
DA	.07	.61**	1						
PE	.37**	.27**	.21**	1					
PC	-.31**	.44**	.45**	.17*	1				
PS	.49**	.30**	.17*	.47**	-.11	1			
OP	.56**	.75**	.62**	.68**	.34**	.67**	1		
AP	.91**	.21**	.10	.46**	-.27**	.79**	.68**	1	
MP	.12	.85**	.76**	.58**	.63**	.34**	.86**	.21**	1

**. Correlation is significant at the 0.01 level (2-tailed)
*. Correlation is significant at the 0.05 level (2-tailed)

CHAPTER V: CONCLUSION

As stated before, the main concern of this study can be summarized as investigating the predictive role of perfectionism on the level of academic achievement and life satisfaction. With a more detailed description, the study aimed at understanding the relationship of overall perfectionism, adaptive perfectionism, maladaptive perfectionism, need for organization, excessive concern over mistakes, doubts about actions, high parental expectations, excessive parental criticism and high personal standards with the level of academic achievement, overall life satisfaction, friend satisfaction, family satisfaction, school satisfaction, living environment satisfaction and self satisfaction for males and females.

Additionally, differences in the level of perfectionism dimensions overall, adaptive and maladaptive perfectionism according to gender; differences in the level of overall life satisfaction and its dimensions according to gender and differences in the level of academic achievement according to gender were investigated. Differences in the level of overall, adaptive and maladaptive perfectionism, perfectionism dimensions, overall life satisfaction, friend satisfaction, family satisfaction, school satisfaction, living environment satisfaction, self satisfaction and academic achievement according to father's and mother's education level were also investigated as additional analyses. Other additional analyses were performed to understand differences in the level of overall, adaptive, maladaptive perfectionism and perfectionism dimensions according to birth order and to reexamine the inter-correlations of the MSLSS dimensions and FMPS dimensions for the participants of the present study.

Review of the Findings of Descriptive Statistics

Mean scores on perfectionism and its dimensions for this study and the study conducted by Taşdemir (2003) and mean scores on life satisfaction dimensions for this study and the study conducted by Canbek (2006) are presented below in order to present similarities between the present study and the original validity and reliability studies of the instruments with high school student samples.

The mean "overall perfectionism" score of the total sample was m= 106.15 in the present study whereas it was m= 106 in the study conducted by Taşdemir (2003). It was m= 102.79 for females in the present study whereas it was m= 103.63 in the study conducted by Taşdemir (2003) and it was m= 107.69 for males in the present study whereas it was m= 107.37 in the study conducted by Taşdemir (2003). Both studies show that male and female high school students are somewhat perfectionistic.

Mean scores on perfectionism dimensions of the total sample for this study and the study conducted by Taşdemir (2003) are presented below respectively.

On "need for organization" dimension mean scores were m= 3.74 (for the present study) and m= 3.76 (Taşdemir, 2003). On "excessive concern over mistakes" dimension mean scores were m= 2.69 (for the present study) and m= 2.74 (Taşdemir, 2003). On "doubts about actions" dimension mean scores were m= 2.73 (for the present study) and m= 2.83 (Taşdemir, 2003). On "high parental expectations" dimension mean scores were m= 3.34 (for the present study) and m= 3.19 (Taşdemir, 2003). On "excessive parental criticism" dimension mean scores were m= 2.35 (for the present study) and m= 2.13 (Taşdemir, 2003). On "high personal standards" dimension mean scores were m= 3.31 (for the present study)

and m= 3.37 (Taşdemir, 2003). It was observed that most of the values are close to each other.

Mean scores on life satisfaction dimensions for this study and the study conducted by Canbek (2006) are presented below respectively. On “friend satisfaction” dimension mean scores were m= 45.34 (for the present study) and m= 46.35 (Canbek, 2006). On “family satisfaction” dimension mean scores were m= 34.59 (for the present study) and m= 34.70 (Canbek, 2006). On “school satisfaction” dimension mean scores were m= 32.43 (for the present study) and m= 33.23 (Canbek, 2006). On “living environment satisfaction” dimension mean scores were m= 40.13 (for the present study) and m= 38.75 (Canbek, 2006). On “self satisfaction” dimension mean scores were m= 35.21 (for the present study) and m= 36.15 (Canbek, 2006). It is observed that most of the values are close to each other.

Participants are satisfied with their lives and this finding is similar to the findings of Canbek (2006).

Review of the Findings of Research Questions

Do Perfectionism Dimensions, Overall, Adaptive or Maladaptive Perfectionism Significantly Predict Academic Achievement?

In the present study it was found that excessive parental criticism negatively predicts academic achievement for females. It explained 15 % of the variance in academic achievement for females. This finding confirms the conceptualization of excessive parental criticism dimension of FMPS as maladaptive as discussed by several researchers (Frost et al., 1997; Frost & Steketee, 1997; DiBartolo, Li, Frost,

2007; Kawamura, Hunt, Frost & DiBartolo, 2001; Kawamura & Frost, 2004; Coles, Frost, Heimberg & Rhéaume, 2003).

Gilman and Ashby (2003) have concluded that adaptive perfectionists reported higher GPA's whereas Accordino et al. (2000) and Brown et al. (1999) have reported that high personal standards were positively associated with GPA. It should be underlined that in this study, adaptive perfectionism nor its sub dimensions (organization and high personal standards) did not predict academic achievement significantly.

Do Perfectionism Dimensions, Overall, Adaptive or Maladaptive Perfectionism Significantly Predict Friend Satisfaction?

In the present study it was found that excessive parental criticism negatively contributes to satisfaction with friends for males. It explained 6 % of the total variance for males' friend satisfaction. This conclusion should not be surprising since one of the most important areas of an adolescent's life is peer relations and one of the most problematic issues between adolescents and their parents are choice of friends (Steinberg, 1999).

This finding confirms the conceptualization of excessive parental criticism dimension of FMPS as maladaptive (Frost et al., 1997; Frost & Steketee, 1997; DiBartolo, Li, Frost, 2007; Kawamura, Hunt, Frost & DiBartolo, 2001; Kawamura & Frost, 2004; Coles, Frost, Heimberg & Rhéaume, 2003).

Do Perfectionism Dimensions, Overall, Adaptive or Maladaptive Perfectionism Significantly Predict Family Satisfaction?

Need for organization was the only -positive- predictor of family satisfaction for the male group (explained 11 % of the total variance) while excessive parental criticism was the only -negative- predictor of family satisfaction for the female group (explained 23 % of the total variance) in the present study. The power of "need for organization" in predicting family satisfaction for males may be due to the conflicts between parents and adolescents about the family rules and adolescent's untidiness, lack of order and organization. Elizabeth Crews (as cited in Steinberg, 1999; p. 119) explains the issue in terms of different perspectives held by parents and their children. She says that "Making sure that the adolescent's bedroom is tidy often is seen by parents as an area over which they have jurisdiction. Teenagers, however, tend to see their rooms as their own private space and decisions about neatness as matters of personal choice" (Steinberg, 1999; p. 119).

The insignificance of need for organization dimension in predicting family satisfaction for females, on the other hand, may be due to the norms imposed by Turkish culture on females. In other words, in Turkish culture, females are raised to be tidy, clean and organized. So, if the behavior is acquired by the female adolescent from childhood on, the possibility of experiencing conflict with the parents about this issue may decrease. This impact of Turkish culture may culminate in the outcome of insignificance of need for organization dimension in predicting family satisfaction for females.

Do Perfectionism Dimensions, Overall, Adaptive or Maladaptive Perfectionism Significantly Predict School Satisfaction?

Adaptive perfectionism made the largest –positive- contribution to school satisfaction whereas high parental expectations contributed negatively to school satisfaction of female high school students in the present study. They, together, explained 24 % of the variance in school satisfaction of female students. Only need for organization positively predicted school satisfaction of male students.

These findings are parallel to the conceptualization of high parental expectations dimension of FMPS as maladaptive and of high personal standards and need for organization dimensions of FMPS as adaptive (Frost et al., 1997; Frost & Steketee, 1997; DiBartolo, Li, Frost, 2007; Kawamura, Hunt, Frost & DiBartolo, 2001; Kawamura & Frost, 2004; Coles, Frost, Heimberg & Rhéaume, 2003).

Do Perfectionism Dimensions, Overall, Adaptive or Maladaptive Perfectionism Significantly Predict Living Environment Satisfaction?

Only need for organization –positively- predicted living environment satisfaction of females in the present study. It explained 10 % of the total variance for females. Being conventional, perhaps, can mediate the relationship between need for organization and living environment satisfaction since conventional people are planned, careful, tidy and systematic people, like order and organization whereas they, most of the time, are not open to changes and may have a sense of attachment to their living environment (Holland, 1973).

Do Perfectionism Dimensions, Overall, Adaptive or Maladaptive Perfectionism Significantly Predict Self Satisfaction?

Only high personal standards predicted self satisfaction of males and females in the present study. The contribution of high personal standards to self satisfaction is confirmatory with the findings of Gilman and Ashby (2003) and Accordino et al. (2000). Gilman and Ashby (2003) concluded that adolescents who reported high personal standards reported significantly higher self satisfaction than adolescents who reported low personal standards and Accordino et al. (2000) stated that high personal standards are positively correlated with self-esteem.

Do Perfectionism Dimensions, Overall, Adaptive or Maladaptive Perfectionism Significantly Predict Overall Life Satisfaction?

Only adaptive perfectionism predicted overall life satisfaction both for males and females. This finding is partially contradictory with what Chang (2000) stated. He proposed that perfectionism was linked to lower life satisfaction but this study showed that the adaptive part of perfectionism is linked to higher levels of overall life satisfaction. The finding is also contradictory with what was stated by Chang, Watkins and Banks (2004) since they could not find a relationship between adaptive perfectionism and adjustment.

The finding of adaptive perfectionism's positive contribution to life satisfaction confirms the findings of Martin (2005) and Gilman & Ashby (2003), however. Martin (2005) stated that the adaptive perfectionists had less stress and

dysfunction while they had more stress coping resources and greater life satisfaction. Gilman and Ashby (2003), on other hand, have found that both adaptive and maladaptive perfectionists reported higher overall life satisfaction than nonperfectionists.

Suldo and Huebner (2004) stated that life satisfaction was more strongly associated with parental relationship although the emphasis is made on peer relations, concern on physical appearance, and schooling. Leung and Zhang (2000) made similar statements to Suldo and Huebner and proposed that the relationship of the child with her/his parents was a strong predictor for life satisfaction. In their study conducted on 1099 Chinese junior high school students, Leung and Zhang (2000) found that the perceived relationship with parents was the main predictor of life satisfaction. Although, like Chinese culture, Turkish culture is collectivist and emphasizes the importance of child-family relationships and elements such as affection, warmth, respect for parents, and monitoring, the current study did not reveal a significant predictive role of parental criticism or parental expectations on overall life satisfaction.

Dost (2007), on the other hand, reported that there were no significant differences among the level of life satisfaction of university students according to perceived parental attitudes. Despite the different target populations of the two studies, the current study showed similar results to what Dost (2007) stated.

To sum up, regardless of the findings of previous studies, excessive parental criticism showed a general maladaptive pattern in this study although the lowest scores were reported on excessive parental criticism dimension. It contributed negatively to academic achievement, friend satisfaction and family satisfaction. Relying on this pattern, it can be concluded that this study demonstrates the

importance of the parenting style and the quality of parent-child relationships in terms of predicting academic achievement, friend and family satisfaction of adolescents.

Adaptive perfectionism, on the other hand, made a positive contribution to the overall life satisfaction and school satisfaction of adolescents. This pattern demonstrated the importance of the combined effect of having high personal standards and of being ordered and organized for satisfaction with life.

Review of the Findings of Additional Analyses

The major dimension of the Frost Multidimensional Perfectionism Scale was excessive concern over making mistakes whereas need for organization dimension was in low correlation with overall perfectionism and the other five domains (Frost et al., 1990). As it was in the original study, the major dimension of the scale was found as "excessive concern over making mistakes" in the present study but need for organization dimension was not found to have low correlation with the overall scale.

Males and females differed significantly on excessive concern over mistakes, excessive parental criticism, maladaptive perfectionism, overall life satisfaction, friend satisfaction, family satisfaction, school satisfaction, living environment satisfaction, self satisfaction and academic achievement. Both males and females were somewhat perfectionistic (mean score is 2.94 for females and 3.08 for males out of 5) although males tended to show more concern over mistakes, suffer more from parental criticism and have more maladaptive perfectionism than females.

Although not statistically significant, it was observed that males tended to get higher scores on other maladaptive aspects of perfectionism (doubts about actions and high parental expectations) and overall perfectionism than females whereas females tended to get higher scores on adaptive aspects of perfectionism (positive achievement striving as a whole and each dimension of it – organization and high personal standards) than males.

Dinç (2001) concluded at the end of her study conducted on Turkish university students that males are more socially-prescribed perfectionists than females. Oral (1999), on the other hand, found males to be more other-oriented perfectionist than females at the end of her study conducted on Turkish university students. Both researchers could not find a significant difference between the overall perfectionism scores of males and females. This study shows parallel results with the two studies above in terms of not finding a significant difference between the overall perfectionism scores of males and females but differs from the study conducted by Taşdemir (2003) since she found that male high school students tended to be more perfectionistic (overall perfectionism) than female high school students. However, it should be stated that although this study failed to find significant differences between the overall perfectionism scores of males and females, the mean difference is larger than the one that was stated by Taşdemir (2003)(m.d.= 4.9 for the present study whereas it was m.d.= 3.74 for the study of Taşdemir). This result can be due to the sample size, which is not large, of the present study.

The two studies (present study and the study conducted by Taşdemir) show parallel results in terms of the finding that males tended to show more concern over mistakes than females. Taşdemir (2003) found that males feel parental expectations

more and have higher personal standards than females. The present study, on the other hand, found that males tended to suffer more from parental criticism and have more maladaptive perfectionism than females. Despite these gender differences, it can be concluded that both male and female high school students are rather adaptive perfectionists (m= 3.58 for females, m= 3.49 for males) than being maladaptive (m= 2.6 for females, m= 2.86 for males).

Both males and females are satisfied with their lives (mean score is 4.98 for females and 4.56 for males out of 6) despite the fact that females reported that they are more satisfied with their lives as a whole, with their friends, families, schools, environments in which they live and with themselves. Both males and females are least satisfied with school whereas females are most satisfied with their friends and males are most satisfied with themselves. These findings support those findings reported by Meliha Tuzgöl Dost (2007) and Gilman et al. (2000).

At the end of a study conducted on 403 university students (255 females, 148 males), Dost reported that female students had higher -global- life satisfaction than male students ($F (2, 376)= 5.42, p< .05$). Gilman et al. (2000), on the other hand, concluded that females reported higher levels of satisfaction in the "Friends" domain than males.

Groups differed significantly on academic achievement according to gender and females were found to be more successful in school than males. Groups differed only on GPA and school satisfaction according to both fathers' and mothers' education levels. Participants whose fathers graduated from university and/or above were more successful in school than participants whose fathers did not graduate from any school and whose fathers graduated from primary school, secondary school and high school. Participants whose mothers were graduates of schools above

high school (college and/or university) were more successful in school than participants whose mothers cannot read and write and than participants whose mothers are graduates of primary school and secondary school. Participants, whose mothers can read and write but did not graduate from any school, were observed to be an exception since they are the third most successful group and since there is no significant differences between the level of academic achievement of this group and the group of participants whose mothers were graduates of schools above high school. The reason for this exception can be "modeling" if those mothers who "can read and write but did not graduate from any school" had learned how to read and write with the adult education programs.

Participants whose fathers graduated from elementary school reported that they were more satisfied with school than participants whose fathers graduated from high school, university and schools above university. Participants whose mothers graduated from schools above high school (college and/or university) reported that they were less satisfied with school than participants whose mothers graduated from primary school and secondary school. Participants, whose mothers can read and write but did not graduate from any school, were observed as an exception in terms of school satisfaction, too and it was hypothesized that this exception could be due to "modeling" if those mothers who "can read and write but did not graduate from any school" had learned reading and writing with the adult education programs. If this is the case, it can be hypothesized that mothers' attending adult education programs can motivate their children for further education and this can lead to greater satisfaction with school.

It was observed that the higher the level of education of fathers and mothers the higher the GPA of the participants. However, it was observed that the higher the

level of education of fathers and mothers the lower the school satisfaction scores of the participants.

In the present study, no significant differences were found in the perfectionism scores of the participants according to fathers' and mothers' education levels. Taşdemir (2003), on the other hand, found that perfectionism scores differed according to the level of education of participants' fathers and mothers. According to her findings, participants whose mothers "could read and write but did not graduate from any school" and participants whose fathers "could read and write but did not graduate from any school" were more perfectionistic than the other participants.

Kevin Leman (as cited in Adderholdt & Goldberg, 1999) has concluded that first born children may be more exposed to situations that trigger perfectionism. Sondergeld, Schultz and Glover (2007), on the other hand, have concluded that middle children reported significantly higher levels of perfectionism on doubts about actions dimension than oldest and youngest children. Taşdemir (2003) could not find significant differences among "first born child", "middle child", "third child" and "last born child" groups in terms of perfectionism in a sample of Turkish high school students.

In order to analyze whether groups differed in terms of perfectionism according to birth order, independent samples t-test analysis was conducted. Two groups were formed, "first born child" and "others" (composed of second, third, fourth and fifth born children) and it was found that the "first born child" group had significantly lower scores on adaptive perfectionism and need for organization than the "others" group whereas they had significantly higher scores on excessive parental criticism than the "others" group. First of all, it should be stated that groups

could not be formed as “first”, “middle” and “last” due to the type of the question in the Demographic Information Form. The question of the birth order was open-ended and the participants were asked to write the order themselves in numbers (such as 1st, 2nd, 3rd, 4th, and so on, not as first, middle and last). So, the groups could be compared just as “first born child” and “others” and it was not possible to compare middle children and the last born children with the first born children.

The finding that the “first born child” group had significantly lower scores on adaptive perfectionism can be due to the parents’ insecurity and children’s measuring themselves according to adults’ standards which are parallel to the statements of Kevin Leman. The finding that the “first born child” group had significantly higher scores on excessive parental criticism than the “others” group can be due to the socialization process of the parents with the first born child. Parents not only socialize their children but also are socialized by their children (Devor, 1970). Their rules can change and their standards and degree of control can decrease with the experience they have with their first children; their insecurity, anxiety, overprotective and overcritical behaviors can leave their place to professionalism and they can be less critical to their following children. At the end of a study conducted on 107 mothers of pre-school aged children, Devor (1970) reported that the majority of mothers were conscious of their children’s power of influencing and causing them to adjust their parental personality and child-rearing attitudes.

Limitations, Implications and Suggestions

One of the limitations of the study is the size of the sample, that is the size was small. The proportion of females to males is another limitation of the study. At the beginning of the study it was planned that equal sizes of males and females would participate in the study. But in practice, reasons beyond the control of the researcher made this impossible. Since the instruments were administered in the classroom environment, students were taken as clusters where the classes of students formed those clusters. Therefore, the participants consisted of students who attended those classes.

Another limitation related to the proportion of females to males is the fact that there were no female students attending the Vocational High School. This fact might have interfered with the results indicating gender differences in academic achievement and other variables.

Academic achievement is measured with 9th grade GPA's of the students. Despite the fact that the GPA's of the students were absolute GPA's (not reported GPA's), the limitation of it to 9th grade may cause problems with the generalization of the results since just 9th grade's grade point average may not represent the grade point average that the students will have at the time of graduation.

Another limitation of the study was the necessity of asking the participants to write their names on the Demographic Information Forms. Although they were told that the reason for this was that their instruments had to be matched with their GPA's and that after their GPA's were matched with their instruments, their names would be erased from the Demographic Information Forms by the researcher so that,

even if the data would be coded and analyzed by someone other than the researcher, their information would not be shared with anyone, there is still the possibility of the impact of reservation and social desirability in responses.

The question style of the birth order in the Demographic Information Form caused another limitation related to analyses. Since the style of the question was open-ended and since the participants were not directed to the options such as "first", "middle" and "last", analyses related to the differences between those groups (first born child, middle child and last born child) could not be conducted and instead, two groups were formed, "first born" and "others".

When the results are interpreted and generalized, the limitations listed above should be taken into consideration.

In order to remove the possible effects of the limitations of the current study, a study may be conducted with a larger sample in which students from different regions and grades (9th, 10th, 11th and 12th grades) participate and in which the proportion of female students is the same as male students.

For further research, new studies on adolescents' life satisfaction are suggested in which the role of perfectionism is measured via different conceptualizations of perfectionism such as the conceptualizations of Hewitt and Flett (1991) and Slaney et al. (2001) and in which life satisfaction is defined as a one-dimensional –global- construct and measured with the Satisfaction With Life Scale (Diener et al., 1985).

Since the findings of this study emphasized the importance of the perceived parenting style and the quality of parent-child relationships in terms of predicting

life satisfaction of adolescents, parent education programs and seminars, which stress the negative effects of parental criticism, can be conducted.

Lastly, seminars or education programs, which emphasize the importance of the adaptive perfectionism (in other words the combined effect of having high personal standards and of being ordered and organized) for satisfaction with life and each of its dimensions, can be prepared and administered to adolescents.

APPENDIX A

Demographic Information Form

DEMOGRAFİK BİLGİ FORMU

Bu araştırma, Boğaziçi Üniversitesi Yüksek Lisans öğrencisi Zeynep GÖÇ'ün Boğaziçi Üniversitesi Eğitim Fakültesi Bölüm Başkanı Doç. Dr. Fatoş ERKMAN'ın danışmanlığında yürüttüğü Yüksek Lisans tez çalışmasıdır. Çalışmanın ana amacı mükemmeliyetçiliğin yaşam doyum düzeyi ve başarı düzeyi ile ilişkisini ortaya koymaktır. Bu çalışma için doldurmanızı istediğimiz bazı form ve ölçekler vardır. Yaklaşık 1 saatte tamamlanabilecek bu form ve ölçeklere yazacağınız kimliğiniz gizli kalacaktır. Sorulara içtenlikle cevap vermeniz araştırmanın doğru sonuçlar ortaya koyması açısından önemlidir. Uygulamanın herhangi bir safhasında kendinizi iyi hissetmezseniz araştırmaya katılmaktan vazgeçebilirsiniz.

Ayırdığınız zaman ve katkınız için teşekkür ederiz.

Adınız-Soyadınız :……..

Yaşınız :…….

Cinsiyetiniz : 1. Kız ( ) 2. Erkek ( )

Okulunuzun Adı :…….

Sınıfınız :…….

Babanızın eğitim durumu:1. Okur-Yazar değil ( ) 2. Okur-Yazar ( ) 3. İlkokul( )
4. Ortaokul ( ) 5. Lise ( ) 6.Üniversite ( )
7. Diğer:……..

Annenizin eğitim durumu:1. Okur-Yazar değil ( ) 2. Okur-Yazar ( ) 3. İlkokul( )
4. Ortaokul ( ) 5. Lise ( ) 6.Üniversite ( )
7. Diğer:……..

Kaç kardeşsiniz :1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ve üzeri ( )

Kaçıncı çocuksunuz : ……

APPENDIX B

Turkish Form of Multidimensional Students' Life Satisfaction Scale
(LÖÇBYDÖ)

LİSE ÖĞRENCİLERİNDE ÇOK BOYUTLU YAŞAM DOYUM ÖLÇEĞİ

Aşağıda bir dizi ifade ve her bir ifadeye ne kadar katıldığınızı belirtebileceğiniz 1'den 6'ya kadar rakamlar verilmiştir.

1: Bana hiç uygun değil, 2: Bana çoğunlukla uygun değil, 3: Bana pek uygun değil,
4: Bana biraz uygun , 5: Bana uygun, 6: Bana çok uygun

anlamına gelmektedir.

Her bir ifadeye ne kadar katıldığınızı belirtmek için o ifadenin yanındaki rakamlardan **yalnız bir tanesini** işaretleyiniz. Sizce doğruya en yakın olan rakamı işaretleyiniz ve lütfen **hiçbir ifadeyi cevapsız bırakmayınız**.

		Bana Çok Uygun					Bana Hiç Uygun Değil
		6	**5**	**4**	**3**	**2**	**1**
1	Arkadaşlarım bana karşı sevecen ve cana yakındırlar						
2	İnsanlar benimle bir arada olmaktan hoşlanırlar						
3	Okulda kendimi kötü hissediyorum						
4	Arkadaşlarımla kötü zaman geçiririm						
5	İyi yapabildiğim bir çok şey var						
6	Okulda bir çok şey öğreniyorum						
7	Anne-babamla zaman geçirmeyi severim						
8	Ailem bir çok aileden daha iyidir						
9	Okulla ilgili sevmediğim bir çok şey var						
10	Güzel/yakışıklı olduğumu düşünüyorum						
11	Arkadaşlarım harikadır						
12	Eğer ihtiyaç duyarsam arkadaşlarım bana yardım ederler						
13	Keşke okula gitmek zorunda olmasaydım						
14	Kendimi seviyorum						
15	Yaşadığım yerde yapacak bir çok eğlenceli şey var						
16	Arkadaşlarım bana iyi davranırlar						
17	Çoğu insan beni sever						
18	Ailemle birlikte evde olmaktan hoşlanırım						
19	Ailemdeki kişiler birbirleriyle iyi geçinirler						
20	Okula gitmeyi dört gözle beklerim						
21	Anne-babam bana adil davranır						
22	Okulda olmaktan hoşlanırım						
23	Arkadaşlarım bana karşı kaba ve kırıcı davranırlar						
24	Keşke başka arkadaşlarım olsaydı						
25	Okul ilgi çekici bir yer						
26	Okul etkinliklerinden hoşlanırım						
27	Keşke başka bir evde yaşasaydım						
28	Aile fertlerimiz birbirleriyle güzel bir dille konuşurlar						
29	Arkadaşlarımla beraber çok eğleniriz						
30	Anne-babam ve ben birlikte eğlenceli şeyler yaparız						
31	Mahallemizi/semtimizi seviyorum						
32	Keşke başka bir yerde yaşasaydım						
33	Ben iyi biriyim						
34	Bu kent/kasaba kötü insanlarla dolu						
35	Yeni şeyler denemekten hoşlanırım						
36	Evimiz güzeldir						
37	Komşularımızı severim						
38	Yeterince arkadaşım var						
39	Keşke mahallemizde/semtimizde başka insanlar olsaydı						
40	Yaşadığım yeri seviyorum						

APPENDIX C

Turkish Form of Multidimensional Perfectionism Scale
ÇBMÖ (F)

ÇOK BOYUTLU MÜKEMMELİYETÇİLİK ÖLÇEĞİ

Aşağıda bir dizi ifade ve her bir ifadeye ne kadar katıldığınızı belirtebileceğiniz 1'den 5'e kadar rakamlar verilmiştir.

1: Kesinlikle katılmıyorum, 2: Katılmıyorum, 3: Kararsızım,
4: Katılıyorum, 5: Kesinlikle katılıyorum anlamına gelmektedir.

Her bir ifadeye ne kadar katıldığınızı belirtmek için o ifadenin yanındaki rakamlardan **yalnız bir tanesini** işaretleyiniz. Sizce doğruya en yakın olan rakamı işaretleyiniz ve lütfen **hiçbir ifadeyi cevapsız bırakmayınız**.

		Kesinlikle Katılmıyorum				Kesinlikle Katılıyorum
		1	**2**	**3**	**4**	**5**
1	Ebeveynlerim benim için çok yüksek standartlar belirler					
2	Düzen (plan) benim için çok önemlidir					
3	Çocukken, bir şeyi mükemmel olarak gerçekleştirmediğimde cezalandırıldım					
4	Kendim için en yüksek standartları belirlemezsem, muhtemelen ikinci sınıf bir insan olurum					
5	Ebeveynlerim hatalarımı asla anlamaya çalışmadılar					
6	Yaptığım her şeyde tam anlamıyla yeterli olmak benim için çok önemlidir					
7	Düzenli (temiz) bir insanım					
8	Düzenli (temiz) bir insan olmaya gayret ederim					
9	Okulda (işte) başarısız olursam, kişi olarak da başarısızımdır					
10	Hata yaparsam sinirlenirim					
11	Ebeveynlerim her şeyde en iyi olmamı istemişlerdir					
12	Kendime çoğu insandan daha yüksek standartlar koyarım					
13	Eğer biri okulda (işte) bir işi benden daha iyi yaparsa, kendimi bütün işlerde başarısız hissederim					
14	Kısmen başarısız olmam bütünüyle başarısız olmak kadar kötüdür					
15	Ailemde sadece mükemmel performans yeterince iyidir					
16	Bir amaca ulaşmada çabalarımı odaklaştırmada çok iyiyimdir					
17	Bir şeyi çok dikkatli bir şekilde yapmış olsam bile, çoğu zaman yeterince doğru olmadığı hissine kapılırım					
18	Yaptığım şeylerde en iyiden daha azını gerçekleştirdiğimde öfkelenirim					
19	Çok yüksek hedeflerim vardır					
20	Ebeveynlerim benden mükemmellik beklemektedirler					
21	Eğer hata yaparsam, muhtemelen insanlar beni daha az düşüneceklerdir					
22	Asla ebeveynlerimin beklentilerini karşılayabildiğimi hissetmedim					
23	Diğer insanlar kadar iyi olmamam eksik biri olduğum					

	anlamına gelir					
24	Diğer insanların kendilerine benden daha yüksek standartlar belirlediğini düşünüyorum					
25	Her zaman iyi olamazsam insanlar bana saygı duymazlar					
26	Ebeveynlerim geleceğim konusunda daima benden daha çok beklentiye sahip olmuşlardır					
27	Düzenli ve temiz bir kişi olmaya çalışırım					
28	Daima her gün yaptığım basit şeylere karşı şüphelerim vardır					
29	Düzenlilik (temizlik) benim için çok önemlidir					
30	Günlük işlerimde kendimden bir çok insanın gösterdiğinden daha yüksek bir performans beklerim					
31	Düzenli (temiz) bir insanım					
32	Yaptığım şeyleri tekrar tekrar yinelediğim için işimde geri kalma eğilimindeyim					
33	Bir şeyi doğru olarak yapmam uzun zamanımı alır					
34	Daha az hata yaparsam, daha çok insan beni sevecektir					
35	Hiçbir zaman ebeveynlerimin standartlarını karşılayabildiğimi düşünmedim					

APPENDIX D

Permission Form of the National Ministry of Education

T.C.
İSTANBUL VALİLİĞİ
İl Milli Eğitim Müdürlüğü

Sayı : B.08.4.MEM.4.34.00.18.580/ 454/12895
Konu: Anket(**Zeynep GÖÇ**)

14 Şubat 2008

BOĞAZİÇİ ÜNİVERSİTESİ
Eğitim Fakültesi Dekanlığı'na

İlgi : a) Valilik Makamının tarih14/02/2008 ve 18.580/445/12669 sayılı Oluru.
b)Milli Eğitim Bakanlığına Bağlı Okul ve Kurumlarda Yapılacak Araştırma ve Araştırma Desteğine Yönelik İzin ve Uygulama Yönergesi.
c) 08/01/2008 tarihli yazınız.

Üniversiteniz Sosyal Bilimler Enstitüsü Eğitim Bilimleri Bölümü, Rehberlik ve Psikolojik Danışmanlık yüksek lisans öğrencisi **Zeynep GÖÇ'ün** İlimiz Kadıköy ve Maltepe ilçelerindeki okullarda uygulanmak üzere **"Mükemmeliyetçilik Düzeyleri Farklı Kız ve Erkek Lise Öğrencilerinin Yaşam Doyum ve Başarı Düzeyleri Arasındaki Farklar"** konulu anket çalışmalarını yapma istekleri İlgi (a) Valilik Oluru ile uygun görülmüştür.

Bilgilerinizi, gereğinin İlgi(a) Valilik Oluru doğrultusunda, gerekli duyurunun anketçi tarafından yapılmasını, işlem bittikten sonra 2 (iki) hafta içinde sonuçtan Müdürlüğümüz Kültür Bölümüne rapor halinde bilgi verilmesini arz ederim.

Erdem DEMİRCİ
Müdür a.
Müdür Yardımcısı

EKLER :
Ek-1. İlgi(a)Valilik Oluru
2. Ek: Anket Soruları.

NOT : Verilecek cevapta tarih, kayıt numarası, dosya numarası yazılması rica olunur.
Adres : İstanbul Milli Eğitim Müdürlüğü A.Blok Ankara cad. No:2 Cağaloğlu
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