Eğitim ve Bilim
2011, Cilt 36, Sayı 162

Education and Science
2011, Vol. 36, No 162

Dimensions of Perfectionism in Elementary School-Aged Children: Associations with Anxiety, Life Satisfaction, and Academic Achievement

İlköğretim Çağındaki Çocuklarda Mükemmeliyetçilik Boyutları: Kaygı, Yaşam Doyumu ve Akademik Başarı ile İlişkileri

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Abstract

The main purpose of the study was to examine the relationship of the dimensions of perfectionism with anxiety, life satisfaction, and academic achievement, and to determine whether dimensions of perfectionism significantly predict anxiety, overall life satisfaction, and academic achievement in elementary school-aged children. Differences in the level of the dimensions of perfectionism according to gender and grade level were also investigated. Four hundred and eighteen children (198 girls and 220 boys) completed the Adaptive-Maladaptive Perfectionism Scale, Trait Anxiety Inventory for Children, and The Brief Multidimensional Students' Life Satisfaction Scale. Results revealed that sensitivity to mistakes and need for admiration were significantly and positively correlated with anxiety, while contingent self-esteem and compulsiveness were significantly and positively correlated with all life satisfaction domains, overall life satisfaction, and academic achievement. Sensitivity to mistakes was found as a significant predictor of anxiety, while contingent self-esteem and compulsiveness were found as significant predictors of both life satisfaction and academic achievement. Findings also indicated that there were significant effects of gender on sensitivity to mistakes, contingent self-esteem, and compulsiveness, and that there were significant grade level effects on compulsiveness and need for admiration.

Keywords: the dimensions of perfectionism, anxiety, life satisfaction, academic achievement

Öz

Bu çalışmanın başlıca amacı, ilköğretim çağındaki çocuklarda mükemmeliyetçilik boyutları ile kaygı, yaşam doyumu ve akademik başarı arasındaki ilişkileri incelemek ve mükemmeliyetçilik boyutlarının kaygı, yaşam doyumu ve akademik başarının anlamlı bir yordayıcısı olup olmadığını araştırmaktır. Aynı zamanda mükemmeliyetçilik boyutlarından alınan puanların cinsiyet ve sınıf düzeyine göre anlamlı olarak farklılaşıp farklılaşmadığı incelenmiştir. Dört yüz on sekiz çocuk (198 kız, 220 erkek), Uyumlu-Uyumsuz Mükemmeliyetçilik Ölçeği, Çocuklar İçin Sürekli Kaygı Envanteri ve Öğrenciler İçin Çok Boyutlu Yaşam Doyumu Ölçeği-Kısa Formu'nu yanıtlamışlardır. Sonuçlar, mükemmeliyetçiliğin hatalara duyarlılık ve onay gereksinimi boyutlarının kaygı ile pozitif yönde ve anlamlı olarak, şartlı benlik saygısı ve saplantılı davranış boyutlarının ise yaşam doyumunun tüm alt boyutları, genel yaşam doyumu ve akademik başarı ile pozitif yönde ve anlamlı olarak ilişkili olduğunu ortaya koymuştur. Hatalara duyarlılığın kaygının anlamlı bir yordayıcısı olduğu bulunurken, şartlı benlik saygısı ve saplantılı davranışın yaşam doyumu ve akademik başarının anlamlı bir yordayıcısı olduğu bulunmuştur. Ayrıca, cinsiyetin hatalara duyarlılık, şartlı benlik saygısı ve saplantılı davranış puanlarında, sınıf düzeyinin ise saplantılı davranış ve onay gereksinimi puanlarında anlamlı farklılaşmalara yol açtığı bulunmuştur.

Anahtar Sözcükler: Mükemmeliyetçilik boyutları, kaygı, yaşam doyumu, akademik başarı.

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Introduction

Perfectionism is defined as striving for flawlessness (Flett and Hewitt, 2002) or the tendency to maintain or to reach unreasonably high standards (Hill, Zrull, and Turlington, 1997). Historically, perfectionism has been conceptualized as a unidimensional construct (Burns, 1980), and there has been a particular focus on the negative correlates of perfectionism. (Bieling, Israeli, Smith, and Antony, 2003). Conversely, some authors believed that having high personal standards was necessary for positive mental health and therefore perfectionism may be a positive/adaptive side. Multidimensional perfectionism approach is based on Hamachek's (1978) work. Hamachek (1978) points out that perfectionism can be a positive personality trait and distinguishes between sane and pathological perfectionism. Currently there is a recognition that perfectionism is a multidimensional construct, can be operationalized as dimensional or categorical, and may involve relatively adaptive aspects, as well as clearly maladaptive aspects (Rice, Vergara, and Aldea, 2006).

Adaptive/maladaptive dichotonomy of perfectionism has been supported by various studies (e.g., Gilman and Ashby, 2003, Rice and Preusser, 2002; Trumpeter, Watson, and Brian, 2006). Adaptive perfectionism is typically marked by high personal standards and a preference for organization, coinciding with an absence of ill feelings when one's standards go unmet (Hanchon, 2010). Maladaptive perfectionism involves unrealistically high standards, intense ruminative concern over mistakes, perceived pressure from others to be perfect, a perceived large discrepancy between one's performance and personal standards, compulsive doubting of one's actions, and motivation to avoid negative consequences (Enns and Cox, 2002). While maladaptive perfectionism was significantly correlated with various forms of distress such as attachment anxiety and depressive mood (Wei, Mallinckrodt, Russell, and Abraham, 2004), adaptive perfectionism was correlated with psychological adjustment (Miquelon, Vallerand, Grouzet and Cardinal, 2005), self-esteem, motivation for school and school achievement (Bergman, Nyland, and Burns, 2007; Stoeber and Rambow, 2007), and more positive forms of self-esteem regulation (Trumpeter, Watson, and O'Leary, 2006).

Much of the literature on perfectionism has focused on late adolescents, young adults and adult clinical populations (Rice and Preusser, 2002). There are fewer studies on perfectionism in school-aged children. Previous research on perfectionism among school-aged children has confirmed that perfectionism is a multidimensional construct (e.g., Cheng, Chong, and Wong, 1999; Flett, Hewitt, Boucher, Davidson and Munro, 2000; Hawkins, Watt, and Sinclair, 2006; Rice, Leever, Noggle, and Lapsley, 2007; Rice, Kubal, and Preusser, 2004; Slaney, Chadha, Mobley, and Kennedy, 2000; van Hanswijck de Jonge and Waller, 2003). Very few of these studies have examined specifically the dimensions of perfectionism and their correlates in younger children. The findings of these studies have revealed that specific the dimensions of perfectionism were associated with various aspects of self-concept (Rice, Kubal and Preusser, 2004), several forms of emotional difficulties including depression and anxiety (Hewitt et al., 2002; Rice, Leever, Noggele, and Lapsley, 2007), obsessive-compulsive symptoms, specific fears (Dekryger, 2005), and self-esteem (Kırdök, 2004). Due to a paucity of previous research on the dimensions of perfectionism in younger children, additional research with larger and different samples needs to be done to better understand the dimensions of perfectionism and their correlates among school-aged children. The current study attempts to do this by using Adaptive/Maladaptive Perfectionism Scale (AMPS; Rice and Preusser, 2002).

One purpose of this study was to examine the relationship between the dimensions of perfectionism with anxiety, life satisfaction, and academic achievement, and to determine whether dimensions of perfectionism significantly predict anxiety, overall life satisfaction, and academic achievement in a Turkish elementary school children sample. Several research have been examined the dimensions of perfectionism as associated with anxiety (e.g., Hewitt et al., 2002; Kırdök, 2004). In a sample of fourth- and fifth-grade students, sensitivity to mistakes was found as the most important predictor of anxiety (Rice, Kubal and Preusser, 2004). In another study, self-oriented

perfectionism and socially prescribed perfectionism were found to be significantly associated with anxiety in children (Hewitt et al., 2002). In a sample of Turkish early adolescents, Kırdök (2004) found that negative perfectionism was positively correlated to anxiety. Previous research investigating the relationship between the dimensions of perfectionism and life satisfaction domains in younger children is scarce. In a previous study (Rice, Kubal and Preusser, 2004), sensitivity to mistakes was found to be associated with decreased Happiness and Satisfaction subscale of The Piers-Harris Self-Concept Scale. The findings of previous studies in adolescents have revealed that adaptive perfectionism was associated with life satisfaction in adolescents (e.g., Gilman and Ashby, 2003; Gilman, Ashby, Sverko, Florell, and Varjas, 2005; Wang, Yuen and Slaney, 2009). As for the relationship between perfectionism and academic achievement, previous findings indicated that having high personal standards was associated with higher academic achievement (Accordino, Accordino, and Slaney, 2000; Brown et al., 1999; Gilman and Ashby, 2003; Göç, 2008). In a recent study which conducted in Turkish primary schools (Altun & Yazıcı, 2010), positive perfectionism was found to be positively correlated with academic achievement, while negative perfectionism was negatively correlated with academic achievement. Based on prior research, in this study, it was expected that sensitivity to mistakes would be positively correlated to anxiety. On the other hand, it was expected contingent self-esteem and compulsiveness subscales to be positively associated with life satisfaction dimensions and academic achievement. For need for admiration, previous research was very limited. Rice, Kubal and Preusser (2004) found that need for admiration was significantly and inversely related to emotional stability for both boys and girls, and was significantly and inversely related to happiness and satisfaction for girls only. In a recent study, need for admiration was found to be significantly and positively correlated with negative perfectionsim among Turkish elementary school children (Uz-Baş, 2010). Therefore, it was expected that need for admiration would be positively correlated with anxiety.

Another purpose of this study was to investigate differences in the level of the dimensions of perfectionism according to gender and grade level. Previous research on gender and grade level differences are unclear. Rice and Preusser (2002) reported that no significant gender and age diffrences were observed in the dimensions of perfectionism among children between the ages of 9 and 11. Similarly, Rice, Kubal and Preusser (2004) reported no significant differences between boys and girls on AMPS subscale scores, but they did observe some sex differences in the patterns of associations between perfectionism and different dimensions of self-concept. DeKryger (2005) found that increased age was associated with lower levels of organization, goal orientation and maladaptive striving in children. In the same study, females reported higher levels of concern about organization than did males and males endorsed higher levels of maladaptive striving than did females. Due to the uncertainity of prior findings, specific hypotheses regarding gender and grade level differences could not be proposed.

Method

Participants

Participants consisted of 418 children (198 girls and 220 boys) aged 9 to 15 years (age for entire group, $M = 11.75$, $SD = 1.56$). Children were recruited from three public elementary schools located in İzmir, Turkey. Permission was obtained from school administration and teachers to carry out the study. Eighty six (20.1%) participants from fourth grade, 95 (18.2%) participants from fifth grade, 83 (17.2%) participants from sixth grade, 70 (21.2%) participants from seventh grade, and 84 (20.1%) participants from eighth grade were recruited for the study.

Instruments

Adaptive/Maladaptive Perfectionism Scale (AMPS). The AMPS (Rice & Preusser, 2002) is a 27-item self-report questionnaire that measures four dimensions of perfectionism. Sensitivity to mistakes includes nine items that measure negative emotions associated with mistakes; contingent

self-esteem includes eight items that measure positive feelings and self-evaluations that result from, or are contingent on task performance; compulsiveness includes six items that measure preferences for order, organization, and careful attention to tasks; and need for admiration includes four items that measure need for approval. A 4-point response scale ranging from *really unlike me* to *really like me* is used. Higher scores indicate more perfectionism. Exploratory and confirmatory factor analyses of item sets and data derived from multiple samples of children in different states and school districts were used to support the four-factor structure of the instrument. Internal consistency reliability estimates for the scores have ranged from .73 to .91 (Rice and Preusser, 2002; Rice et al., 2004). The scale was adapted to Turkish by Uz-Baş (2010). The internal consistency coefficients of the subscales have ranged from 51 to 66, and test-retest reliability coefficients have ranged from .60 to .78. The Cronbach's alpha coefficients were found to be .55, .52, .62, and .66 for the sensitivity to mistakes, contingent self-esteem, compulsiveness and need for admiration respectively for the sample of the present study.

State-Trait Anxiety Inventory for Children (STAIC). The STAIC (Spielberger, 1973) consists of two 20-item scales that measure state and trait anxiety in children between the ages of 8 and 14. The A-State scale examines the shorter-term state anxiety that is commonly specific to situations. It prompts the child to rate 20 statements from hardly ever true to often true. The A-Trait scale measures longer-term trait anxiety, which addresses how the child generally feels. A separate score is produced for the State scale and the Trait scores indicate a higher anxiety level. In this study the A-Trait scale was used. The scale was adapted in Turkish by Özusta (1995). The Cronbach alpha was found as .81. In the present study, Cronbach's alpha coefficient of the scale was .80.

The Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS). The BMSLSS is a 5-item measure in which each item denotes one of the five life satisfaction domains (family, school, friends, self, and living environment) included in the MSLSS. Five items are summed up to obtain a total life satisfaction score. Items are rated on a 7-point scale with responses ranging from 1 (*terrible*) to 7 (*delighted*). The BMSLSS was found to have adequate validity and reliability properties for adolescents (Seligson et al., 2003). An additional item was included with the BMSLSS items as a validity check (Seligson et al., 2005). The scale was adapted in Turkish by Siyez and Kaya (2008). The Turkish version of BMSLSS showed a significant correlation with the Children's Depression Inventory and the Piers Haris Self-Concept Scale. Cronbach's alpha coefficient of the scale was .89. In the present study, Cronbach's alpha coefficient of the scale was .86.

Demographic information form. The form was developed by the researcher and included the questions about the participants' age, grade level, school and semester grades for Math and Turkish courses. Academic achievement was measured with the students' average scores of their semester grades for Math and Turkish courses.

Procedure

The study was conducted in the 2008-2009 academic year. School administration approval was obtained for the study. Data collection was undertaken by the author. Students were informed about the goal of the research, and voluntary participation. The instruments were given to the students in the classrooms. It took 30-40 minutes to fill the scales.

Data Analysis

In data analysis procedure the descriptive statistics for each of the study variables were calculated. The relationsips between the the dimensions of perfectionism, anxiety, life satisfaction domains and overall life satisfaction, and academic achievement were examined using Pearson bivariate correlations. Multiple regression analyses was used to determine whether dimensions of perfectonism significantly predict anxiety, overall life satisfaction, and academic achievement of children. Finally, a multivariate analysis of variance (MANOVA) was used to examine gender and grade level differences in the the dimensions of perfectionism. Univariate F tests were then conducted to determine where specific differences were found.

Prior to main statistical analyses, all the study variables were examined through various SPSS programs for accuracy of data entry, missing values and the assumptions of multivariate analysis. Univariate outliers were searched through inspection of z scores and graphical methods. There were no cases with standardized scores in excess of ± 3.29. Histograms of variables revealed approximately normal distributions for each variables and that there were no univariate outliers. Mahalanobis distance values were examined in order to identify possible multivariate outliers. With the use of a $p < .001$ criterion for Mahalanobis distance no outliers among the cases were found (Tabachnick & Fidell, 2007). Results of evaluation of assumptions of normality, linearity and homoscedasticity of residuals were satisfactory.

Results

Relationships Between The dimensions of perfectionism and Anxiety, Life Satisfaction, and Academic Achievement

The means and standard deviations for measures of the dimensions of perfectionism, anxiety, life satisfaction domains, overall life satisfaction, and academic achievement, and Pearson bivariate correlations between perfectionsim dimensions and the other study variables are presented in Table 1.

Tablo 1.
Descriptive Statistics and Pearson Correlations Between The dimensions of perfectionism and Anxiety, Life Satisfaction Domains and Overall Life Satisfaction, and Academic Achievement

	1	2	3	4	*M*	*SD*
1. Sensitivity to Mistakes	-				22.80	4.68
2. Contingent Self-Esteem	.11*	-			20.40	2.63
3. Compulsiveness	.28**	.38**	-		18.01	3.55
4. Need for Admiration	.26**	.17**	.26**	-	11.75	3.01
5. Anxiety	.33**	.02	.10	.11*	37.58	7.86
6. Family	-.06	.26**	.20**	.10*	5.71	1.53
7. Friends	-.07	.22**	.14**	.05	5.45	1.66
8. School	-.02	.30**	.29**	.03	5.26	1.59
9. Self	-.06	.26*	.12*	.07	5.50	1.75
10. Environment	-.08	.19**	.16**	.02	5.21	1.65
11. Overall life satisfaction	-.08	.32**	.24**	.07	27.12	6.22
12. Academic Achievement	-.02	.22**	.26**	.06	3.99	1.05

*p<.05, **p<.01

As expected, significant and positive correlations were found between the contingent self-esteem subscale and all life satisfaction domains and overall life satisfaction, with correlations ranging from .19 (Environment, $p < .01$) to .32 (overall life satisfaction, $p < .01$). Similarly, as expected, significant positive correlations were found between compulsiveness subscale and all life satisfaction domains and overall life satisfaction, with correlations ranging from .12 (Self, $p < .05$) to .29 (School, $p < .01$). Additionally, both contingent self-esteem and compulsiveness subscales were significantly and positively correlated to academic achievement ($r = .22$ and $r = .26$, $p < .01$, respectively). On the other hand, sensitivity to mistakes and need for admiration subscales

were found significantly and positively correlated with anxiety (r = .33 p < .01, and r = .11, p < .05, respectively). An unexpected result was found for need for admiration subscale. Need for admiration was found to be significantly and positively correlated with family domain of life satisfaction (r=.10, p < .05). Correlations among the the dimensions of perfectionism ranged from .11 (sensitivity to mistakes and contingent self-esteem, p < .05) to .38 (contingent self-esteem and compulsiveness, p < .01). These correlations indicated that the the dimensions of perfectionism are related, but distinguishable from one another.

The dimensions of perfectionism as Predictors of Anxiety, Life Satisfaction, and Academic Achievement

In order to determine whether specific dimensions of perfectionism significantly predict anxiety, overall life satisfaction, and academic achievement of children, three separete multiple regression analyses were conducted. In predicting anxiety, anxiety was entered as the dependent variable, and sensitivity to mistakes and need for admiration were entered as potantial predictors. Results revealed that only sensitivity to mistakes significantly and positively predicted anxiety scores (β = .327, p < .001) and accounted for significant variation in anxiety scores, R^2 = .11 , p< .001. The standardized beta value of need for admiration (β = .025, p > .05) was not significant. In predicting life satisfaction, overall life satisfaction was entered as the dependent variable, and contingent self-esteem and compulsiveness were entered as potantial predictors. Results indicated that contingent self-esteem and compulsiveness, taken together, accounted for significant variation in overall life satisfaction scores, R^2 = .12 , p< .001. Tests of partial standardized beta coefficients revealed that higher contingent self-esteem was the most important predictor of higher overall life satisfaction scores (β = .271, p < .001). In addition, compulsiveness was also found as a significant predictor of overall life satisfaction scores (β = .132, p < .01). Finally, in predicting academic achievement, academic achievement was entered as the dependent variable, and contingent self-esteem and compulsiveness were entered as potantial predictors. Results revealed that compulsivenes and contingent self-esteem, taken together, accounted for significant variation in academic achievement scores, R^2 = .09, p< .001. Tests of partial standardized beta coefficients revealed that higher compulsiveness was the most important predictor of higher academic achievement scores (β = .212, p < .001). Cointingent self-esteem was also found as a significant predictor of academic achievement scores (β = .139, p < .01).

Gender and Grade Level Differences in The dimensions of perfectionism

The means and standard deviations of perfectionism subscale scores by gender and grade level are summarized in Table 2. In order to address the effects of gender and grade level on the dimensions of perfectionism, a multivariate analysis of variance (MANOVA) was conducted. Results indicated significant differences among gender groups on the dependent measures, Wilks' λ = .945, F(8, 373) = 5.862, p < .001. A significant grade level effect was also observed Wilks' λ = .900, F (8, 373) = 2.723, p < .001. The effect of Gender × Grade interaction was not significant Wilks' λ = .971, F (8, 373) = .752, p > .05.

Tablo 2.
The Means and Standard Deviations of Perfectionsim Subscale Scores By Gender and Grade Level.

			Sensitivity to Mistakes		Contingent Self-Esteem		Compulsivenes		Need for Admiration	
		n	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Girls	Fourth	44	23.25	4.48	21.02	2.23	19.98	3.15	12.77	2.85
	Fifth	40	23.60	5.17	20.40	2.22	18.38	3.33	11.43	2.95
	Sixth	41	24.49	3.47	20.85	2.29	18.44	3.10	11.49	2.64
	Seventh	29	23.41	4.71	20.38	2.38	17.90	4.00	10.79	2.96
	Eighth	44	23.05	4.63	21.11	2.44	17.32	3.51	11.23	2.95
	Total	198	23.56	4.50	20.79	2.31	18.44	3.48	11.60	2.92
Boys	Fourth	42	23.57	4.15	20.33	2.50	19.45	3.29	12.91	2.28
	Fifth	55	22.15	5.34	20.04	2.84	17.62	3.34	11.82	3.09
	Sixth	42	22.43	5.16	20.41	2.86	17.17	3.45	11.71	3.24
	Seventh	41	21.20	4.19	20.02	3.09	16.81	3.33	11.17	3.43
	Eighth	40	21.10	4.30	19.48	2.99	17.05	3.99	11.85	3.21
	Total	220	22.11	4.74	20.06	2.85	17.63	3.57	11.89	3.10

As Wilks' λ were significant, in order to investigate gender differences in perfectionism subscales a univariate analysis of variance (ANOVA) was conducted. Results indicated that there were significant differences in the subscales of sensitivity to mistakes, contingent self-esteem, and compulsiveness according to gender, $F(1, 416) = 10.242$, $\eta 2 = .02$, $p < .01$, and $F(1, 416) = 8.155$, $\eta 2 = .02$, $p < .01$ and $F(1, 416) = 5.524$, $\eta 2 = .01$, $p < .05$, respectively. For these three subscales, girls had higher scores than boys. The effect sizes were weak, indicating small effects (Cohen, Manion, and Morison, 2007). No significant gender effect was found for need for admiration subscale, $F(1, 416) = .966$, $p > .05$.

In order to investigate grade level differences in perfectionism subscales, a univariate analysis of variance (ANOVA) was conducted. The ANOVA on compulsiveness subscale indicated a significant difference according to grade level, $F(4, 413) = 7.432$, $\eta 2 = .07$, $p < .001$. The effect size was moderate (Cohen, Manion, and Morison, 2007). Post hoc analyses (Scheffe multiple comparison test) showed that fourth graders had significantly higher scores on compulsiveness subscale than all other groups. The ANOVA on need for admiration subscale indicated a significant difference according to grade level, $F(4, 413) = 4.165$, $p < .01$, $\eta 2 = .04$. The effect size was modest. Post hoc analyses showed that fourth graders had significantly higher scores on need for admiration subscale than seventh and eighth graders. No significant grade level effects were found for sensitivity to mistakes and contingent self-esteem subscales, $F(4, 413) = 1.588$, and $F(4, 413) = .705$, $p > .05$, respectively.

Discussion

The current study aimed at understanding the relationship of the dimensions of perfectionism with anxiety, life satisfaction, and academic achievement in Turkish school-age children. Additionally, differences in the level of the dimensions of perfectionism according to gender and grade level were explored. Consistent with the previous research, it was found that sensitivity to mistakes was associated with anxiety in children. Sensitivity to mistakes was also found to be a significant predictor of anxiety. These findings confirm the conceptualization of sensitivity

to mistakes or concerns about mistakes as maladaptive as discussed by previos research (Frost, Heimberg, Holt, Mattia, and Neubauer, 1993; Öngen, 2010; Rice and Preusser, 2002; Rice, Kubal, and Preusser, 2004; Rice et al., 2007; Yatar-Yıldız, 2007).

The results regarding the dimensions of contingent self-esteem and compulsiveness showed that these dimensions are positively correlated to all life satisfaction domains, overall life satisfaction and academic achievement. Additionally, higher contingent self-esteem was found to be the most important predictor of higher overall life satisfaction. This dimension was also found to be a significant predictor of academic achievement. These findings are consistent with a previous study in which contingent self-esteem was found as a more adaptive form of perfectionism dimension (Rice, Kubal, and Preusser, 2004). Compulsiveness was found to be the most important predictor of academic achievement. The dimension was also a significant predictor of overall life satisfaction. This findings are partially contradictory with a previous study conducted by Rice, Kubal and Preusser (2004). They found that compulsiveness was significantly and negatively related to happiness and satisfaction. On the other hand, they stated that compulsiveness subscale is similar to the organization and personal standards subscales on the MPS, and to the order and high standards subscales on the APS-R. Previos research on these the dimensions of perfectionism indicated that high personal standards was correlated to positive achievement striving, feelings of efficacy and positive affect (Frost, Marten, Lahart, and Rosenblate, 1990). In another study (Gilman and Ashby, 2003), having high personal standards was found to be related positively to overall personal adjustment and self-reported grade point average (GPA). Similarly, Accordino et al. (2000) and Brown et al. (1999) have reported that high personal standards were positively associated with GPA. Altun and Yazıcı (2010) found that positive perfectionism was positively and significantly correlated with academic achievement. These results are consistent with the results of the current study. In the light of these findings, it can be concluded that compulsiveness is a crucial factor for academic achievement. Additionally, the results regarding life satisfaction are consistent with the previous research (Geranmayepour and Besharat, 2010; Gilman et al., 2005; Gilman and Ashby, 2003; Wang, Yuen and Slaney, 2009), indicating that higher scores on adaptive the dimensions of perfectionism are associated with higher life satisfaction scores.

The findings regarding need for admiration showed that there was a weak positive correlation between need for admiration and anxiety. As expected, this finding suggests the maladaptive nature of the dimension (consistent with Uz-Baş, 2010). On the other hand, unexpectedly, it was found a weak positive correlation between need for admiration and family satisfaction. Therefore, it can be concluded that no clear evidence could be obtained about the nature of need for admiration subscale in this study, and future research is needed to be done to better understand this perfectionism dimension and its correlates among children.

In terms of gender and grade level differences in the dimensions of perfectionism, results revealed that sensitivity to mistakes, contingent self-esteem and compulsiveness subscale scores were differed according to gender, indicating that girls reported siginificantly higher scores than boys. But effect sizes of these differences was statistically small, suggesting minimal practical significance. The findings about compulsiveness are consistent with the previous studies which found that females expressed more concern about organization than males during elementary and middle school (DeKryger, 2005; Siegle and Schuler, 2000). The results about gender effects on sensitivity to mistakes and contingent-self-esteem differ from the previous studies in which no significant gender diffrences were observed in the dimensions of perfectionism among children and preadolescents (Rice and Preusser, 2002; Rice, Kubal, and Preusser, 2004). Inconsistent findings may be partly explained by cultural differences. Several research have been investigated the development of perfectionism, and the relationship between familial factors and perfectionism in children has been shown in numerous studies (e.g., Flett, Hewitt, and Singer, 1995; Kawamura, Frost, and Harmatz, 2002). Cultural differences between Turkish culture and Western culture in terms of parenting styles and familial factors may partly account for

differences among these findings. In terms of grade level differences, significant differences were found for compulsiveness and need for admiration. It was observed that fourth graders tended to get higher scores on compulsiveness dimension than all other groups. For need for admiration dimension, it was found that fourth graders tended to get higher scores than seventh and eighth graders. The effect sizes of these differences were statistically moderate and modest, respectively. The finding regarding compulsiveness is consistent with a previous research that revealed that increased age was associated with lower levels of organization (DeKryger, 2005). Developmental differences in perfectionism were also discussed in previous studies (e.g., Rice et al., 2007). These findings indicated that children's characteristics such as preferences for order, organization, and careful attention to tasks are sensitive to the developmental features of them. It can be speculated that younger children pay more attention to academic demands than preadolescents. On the other hand, in early adolescence, peer relations become more prominent, and as a result of this developmental feature, academic demands such as being organization may shift to other demands associated with developmental needs. Certainly these speculations about grade level effects on perfectionsim dimensions are premature. Future research with larger samples may provide additional information about grade level effects on perfectionism.

Although the results of the study have contributed to the current knowledge regarding the dimensions of perfectionism and their correlates in children, limitations should be considered. First, this study used self-report measures in order to assess the dimensions of perfectionism. Future research could be used alternative sources of information beyond self-report. Another limitation of the study is related to the participants of the study. The results of the study are based on a Turkish children sample. Additional research is needed with different samples from different cultures in order to support these findings. The other limitation of the study is related to its methodology. This study used correlational analyses and regression analyses in order to explore the relationship between the dimensions of perfectionism and anxiety, life satisfaction, and academic achievement. It is important for future research to investigate the longitudinal relationships between perfectionism and these constructs in children to provide about the causal relationships involved. Additionally, future mediation studies are needed in order to further explore the dimensions of perfectionism' relationships with life satisfaction, anxiety, and academic achievement.

Conclusion

In conclusion, the findings of the study support the previous research indicating that sensitivity to mistakes is a maladaptive form of perfectionism in children. On the other hand, the results regarding the dimensions of contingent self-esteem and compulsiveness show that these dimensions are associated with all life satisfaction domains, overall life satisfaction and academic achievement. In this study, no clear evidence could be obtained about the nature of need for admiration subscale. Therefore, future research is needed to be done to better understand this perfectionism dimension and its correlates in children. Findings also indicate that there are significant gender effects on sensitivity to mistakes, contingent self-esteem, and compulsiveness, and that there are significant grade level effects on compulsiveness and need for admiration.

The results of this study have meaningful implications for school counselors and educators. First, the results indicated that perfectionism include both adaptive and maladaptive features in children. Higher sensitivity to mistakes is related to maladaptive outcomes, while features such as preferences for organization and positive feelings that result from task performance are related to adaptive outcomes. Therefore, school counselors and educators should be aware of the nature of these the dimensions of perfectionism. Additionally, based on the findings, school counselors might focus their efforts on counseling approaches to reduce the students' sensitivity to mistakes and to promote their attitudes towards being organized in order to increase both their academic achievement and their well-being.

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