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Açık Erişim

Predictors of Major Satisfaction Among Education Students*Eğitim Fakültesi Öğrencilerinde Bölüm Memnuniyetinin Yordayıcıları***Yılmaz Hasret , Hülya Şahin Baltacı ****Authors Information****Yılmaz Hasret**

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ABSTRACT

The purpose of this study was to examine whether education students' career adaptability, person–major fit, willingness to work in an area related to one's major and voluntary choice of it are significant predictors of major satisfaction. In this study, Savickas' career construction theory and Holland's theory of vocational choice were used. The research was designed according to the correlational model and included 828 students from the education department of a public university. The results of the hierarchical regression analysis showed that the concern, control, and confidence subscales under career adaptability were significant predictors of major satisfaction, but the curiosity subscale was not. In addition, person–major fit, willingness to work in an area related to one's major in the future, and voluntary choice of one's major were significant predictors of major satisfaction among the students.

Article Information**Keywords**

Career Adaptability
Career Construction Theory
Major Satisfaction
Person-Major Fit
Theory of Vocational Choice

Anahtar Kelimeler

Kariyer Uyumu
Kariyer Yapılandırma Kuramı
Bölüm Memnuniyeti
Birey-Bölüm Uygunluğu
Meslek Seçimi Kuramı

Article History

Received: 20/03/2021

Revision: 21/11/2021

Accepted: 22/11/2021

ÖZET

Bu araştırmanın amacı eğitim fakültesi öğrencilerinin bölümlerini isteyerek seçmeleri, bölümleriyle ilgili bir alanda çalışmayı istemeleri, kariyer uyumları ve birey-bölüm uygunluk düzeylerinin bölüm memnuniyetinin önemli düzeyde yordayıcısı olup olmadığını incelemektir. Araştırmada Savickas'ın kariyer yapılandırma kuramı ve Holland'ın meslek seçimi kuramı temel alınmıştır. Araştırmada yordamaya yönelik ilişkisel model kullanılmıştır. Araştırma grubunu bir devlet üniversitesinin eğitim fakültesi lisans programlarında öğrenimlerine devam eden 828 öğrenci oluşturmaktadır. Hiyerarşik regresyon analizi sonucunda kariyer uyumunun ilgi, kontrol, güven alt boyutlarının öğrencilerin bölüm memnuniyetinin önemli yordayıcıları olduğu, merak alt boyutunun bölüm memnuniyetinin önemli bir yordayıcısı olmadığı bulunmuştur. Ayrıca birey-bölüm uygunluğu, bölümünü isteyerek seçme ve bölümüyle ilgili bir alanda çalışmayı isteme değişkenlerinin, öğrencilerin bölüm memnuniyetinin önemli yordayıcıları olduğu görülmüştür.

Cite this article as: Hasret, Y., & Şahin Baltacı, H. (2021). Predictors of major satisfaction among education students. *Turkish Psychological Counseling and Guidance Journal*, 11(63), 471-486.

Ethical Statement: Ethics committee approval was obtained from the authors' institutional ethics committee to conduct the study (07.11.2018-68282350/2018/G012).

INTRODUCTION

The career development process has become more complicated with the globalizing economy and changing work culture in the 21st century. Economic, societal, and technological changes have also impacted the employment process and restructured various occupations. In addition, the gradual digitization of work under the Industry 4.0 process is an important factor affecting career development as new occupations emerge while others disappear (Hirschi, 2018). Therefore, uncertainty, insecurity, and competition have increased in the labor market (Maggiori et al., 2017). Career perceptions have also altered as a result; now, career is accepted as a more dynamic and flexible process. Career development, which does not always follow a linear progression, includes the possibility of progress and decline for individuals. The career development process involves people trying to realize their preferences and developmental tasks during their educational training. One of the most important periods in career development is higher education. During this period, many university students are unprepared for the difficulties in the career development process (Niles & Harris-Bowlsbey, 2013). Although people face many developmental tasks and career transitions throughout their lives, choosing a satisfying career is one of the main developmental challenges (Super, 1953). Therefore, one of the main goals of career counseling is to help people discover occupations that will provide them with more satisfaction (Sharf, 2017). People's job satisfaction is directly proportional to the implementation of their vocational self-concepts (Savickas, 2005). In addition, job satisfaction is an indicator of the self-efficacy of making career decisions (Spector, 1997). As teaching is one of the most important professions in shaping human resources and the future of countries, it is important to examine the career process and related satisfaction of teachers (Crisci et al., 2019). Various studies have shown that most teachers experience high stress, burnout, and intention of leaving their job (Chang, 2009; Liu & Onwuegbuzie, 2012; Stoeber & Rennert, 2008). It is hence important to pay attention to teachers' job satisfaction, which positively influences job commitment, leads to less burnout, and ensures a higher quality of teaching for students (Blömeke et al., 2017; Kara, 2020; Skaalvik & Skaalvik, 2011).

Job satisfaction of professionals is examined to determine the effectiveness of career decisions made by employees. However, the effectiveness of career decisions made by university students can be examined by assessing satisfaction with their choice of majors, that is, their field of study (henceforward referred to as "major satisfaction") (Nauta, 2007). The satisfaction of teachers during their candidature period can be examined through their major satisfaction because college majors share characteristics similar to their vocational environment (Allen, 1996; Astin, 1965). Therefore, the choice of the academic major is as important as the choice of occupation (Eun et al., 2013). Previous studies have shown that major satisfaction positively predicts job and life satisfaction (Nauta, 2007; Sovet et al., 2014). Thus, it is necessary to investigate the major satisfaction of education students who are at the beginning of their career.

The desired outcome for students is to choose a major where the satisfaction levels are high, then to choose a vocation and career with the same level of fulfillment (Pesch et al., 2018). Subsequently, major satisfaction is one of the basic variables to be considered for career counseling and guidance services in universities (Logue et al., 2007). Variables such as the quality of interaction with the faculty and the quality of the education received affect major satisfaction. However, despite satisfaction with these variables, an individual may not be satisfied with their major because they may not have chosen it considering their personality, interests, and values (Nauta, 2007). People who make appropriate major choices shape a

better future for themselves in terms of choosing a career and succeeding in it (Wanberg & Muchinsky, 1992).

In Turkey, students experience difficulties in choosing a major that provides them with satisfaction. This is because the choice of major usually depends on the feedback received from a nationwide entrance exam that students take before enrolling in a university. The benefits of higher education in terms of future employment have led to increasing demand for university seats; however, due to the supply–demand discrepancy, only one-third of the students get admissions. The rest usually re-apply next year along with other new applicants. Consequently, in such a case, students may choose majors that are undesirable for them based on their exams score (Büyükgöze-Kavas, 2014). The Transition to Higher Education Statistics of the Turkish Council of Higher Education (2019) shows that approximately 600,000 students who have previously chosen a major or have completed a major re-take the exam. This happens because many students are dissatisfied with the major allotted to them (Turkish Ministry of National Education, 2019). Previous research shows that approximately 20% of students do not want the major they get (Deniz et al., 2018; Naralan & Kaleli, 2012; Şahin et al., 2011). Therefore, this study examined major satisfaction using the career construction theory of Savickas (2005).

Career Adaptability and Major Satisfaction

According to career construction theory (Savickas, 2005), career adaptability is one of the concepts that should be examined to understand satisfaction with career-related variables. Labor market and employment conditions are constantly changing with economic and technological developments (Savickas, 1997), which is why people need to adapt to these to effectively cope with unpredictable and contingent tasks and expectations (Maggiori et al., 2017; Savickas, 1997). Career adaptability is defined as the readiness to cope with predictable tasks encountered while preparing or entering a work role and unpredictable changes in work life (Savickas, 1997). Moreover, it is a psychosocial construct in adolescents and adults—including planned attitudes, exploring self and the environment, making conscious decisions, and exploring ways of coping with vocational development and career transitions (Savickas, 2005). Savickas (2005) enlists several dimensions of career adaptability such as concern, control, curiosity, and confidence. Concern enables individuals to remember their vocational background, to think about their current vocational status, and to predict and plan their vocational future. The belief and feeling of responsibility for constructing one’s career characterize control (Savickas, 2005). Control enables individuals to take responsibility by shaping themselves and their environment through determination, discipline, and effort (Savickas & Porfeli, 2012). Curiosity explains how individuals explore career options that fit them. Confidence expresses the ability of individuals to make suitable choices regarding their career and their self-efficacy, ensuring success when enacted in line with these choices. Moreover, these four basic dimensions represent the resources and strategies that individuals use to manage critical tasks, transitions, and traumas they face while constructing their careers (Savickas, 2005). It is important to address changes in work life due to digitalization caused by Industry 4.0, and how career counseling and guidance practices are affected by these changes. Career adaptability helps in understanding the psychological resources required to cope with this contingent work environment (Hirschi, 2018). Individuals with high career adaptability think and plan their future, and determine ways in which they can increase control over their career. These individuals display curiosity regarding future scenarios and options related to their career, and research in this direction which also increases their confidence to achieve their goals (Savickas, 2005). In other words, it can be said that individuals with

high career adaptability can make plans about their careers, search for suitable career options, and effectively cope with their vocational development tasks and career transitions. During the university period, individuals face two important career transitions: from high school to university, and from university to work life. Individuals with high career adaptability cope more effectively with career transitions. These individuals investigate the relationship between themselves and their major or their world of work to make more effective career decisions. Therefore, individuals with high career adaptability are seen to choose majors that are more appropriate for their personality types and interests, consequently being satisfied with them. Previous studies have shown that career adaptability is significantly related to major, academic, and job satisfaction (Chan et al., 2016; Duffy et al., 2015; Haibo et al., 2018; Han & Rojewski, 2015; Wessel et al., 2008; Zacher, 2015).

Person–Major Fit and Major Satisfaction

According to the career construction theory (Savickas, 2005), another concept that should be examined for understanding satisfaction with career-related variables is vocational personality. In this study, vocational personality is conceptualized as the person–major fit corresponding with Holland's theory (1997), which Savickas (2005) finds useful in explaining vocational personality types. Holland's theory believes that a correlation between people's vocational personality types and their vocational environment (known as person–environment fit) will result in satisfaction with their career choices. In this study, person–environment fit was referred to as “person–major fit” because majors constitute the vocational environment of university students. There are six vocational personality types (realistic, investigative, artistic, social, enterprising, and conventional) in Holland's theory. People show one to three forms of personality types that are more dominant than the others. The codes made up of the first letters of the types are used to define the dominant types of individual personalities (e.g., SEA for social, enterprising, artistic). In addition, the majors are categorized to correlate with one, two, or three of the six types, and each type is expressed in unary, binary, or triple codes (Feldman et al., 2001). In career counseling, the codes of the individual are equated with the environment, followed by ranking majors from fit to unfit for the individual (Özer et al., 2015). When the individual's vocational personality and the characteristics required by the environment fit together, the satisfaction experienced by individuals is higher (Holland, 1997). Furthermore, the correspondence between the individual's personality and the environment positively affects their performance, self-confidence, and optimism (Jiang & Jiang, 2015). This fit mitigates the effects of psychological barriers that negatively affect individuals while completing their career development tasks (Jiang, 2017). While some studies have shown that person–major fit significantly predicts major satisfaction (Bai & Liao, 2018; Fu et al., 2019; Mathis et al., 2017; Nafziger et al., 1975), other studies have shown contrary results (Milsom & Coughlin, 2017; Pozzebon et al., 2014).

In summary, although previous studies focused on teachers' job satisfaction, examining education students' major satisfaction was neglected. However, through the above data, it can be seen that several students are not satisfied with their majors. Thus, this study contributes to the existing literature by using Savickas' theory and Holland's theory to understand education students' level of satisfaction. Based on these reasons, we aim to examine whether education students' career adaptability, person–major fit, willingness to work in an area related to one's major, and voluntary choice of it are significant predictors of major satisfaction.

METHOD

The correlational model was used in this research. One of the basic purposes of correlational research is to predict likely outcomes (Fraenkel et al., 2012). In this research model, if a relationship of sufficient magnitude exists between two variables, it is possible to predict a score of one variable if the score of the other variable is known (Fraenkel et al., 2012).

Participants

The study sample contained 828 students enrolled in various majors of the education department of a public university in Turkey during the fall semester of 2018–2019. Participants were identified using the quota sampling method (Cohen et al., 2007). Among the participants, 72.6% ($n = 601$) were female and 27.4% ($n = 227$) were male. Participants' ages ranged from 17 to 35 years ($M_{age} = 20.24$, $SD = 1.78$). In terms of grade level, 24.2% ($n = 200$) participants were freshman, 34.7% ($n = 287$) were sophomores, 21.3% ($n = 176$) were juniors, and 19.9% ($n = 165$) were seniors. The majors of the participants are listed in Table 1.

Table 1. Distribution of the participants according to their major

Major	<i>n</i>	%
Counseling and Guidance	161	19.4
Science Education	84	10.1
Social Sciences Education	72	8.7
English Language Education	110	13.3
Turkish Education	114	13.8
Early Childhood Education	126	15.2
Primary Education	107	12.9
Mathematics Education	54	6.5

Ethical Statement

The authors declare that they have carried out the research within the framework of the Helsinki Declaration and with the participation of volunteer students. Ethics committee approval was obtained from the authors' institutional ethics committee to conduct the study (07.11.2018-68282350/2018/G012).

Measures

Major satisfaction

The Academic Major Satisfaction Scale (Nauta, 2007) was used to assess major satisfaction. It was adapted to Turkish by Akın et al. (2015). The scale consisted of 6 items, and each item was rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Through the confirmatory factor analysis, the model was found to be significant ($\chi^2/df = .58$, RMSEA = 0.000, NFI = .99, RFI = .99, GFI = .99, AGFI = .99, CFI = 1.00, IFI = 1.00, SRMR = .015). Cronbach's alpha of the scale was calculated as .86, corrected item's total correlation coefficients of the scale ranged between .45 and .77 (Akın et al., 2015). In the current study, the estimated Cronbach's alpha internal consistency reliability coefficient of the total scale was .89.

Career adaptability

The Career Adapt-Abilities Scale—Short Form (Maggiori et al., 2017) was used to assess career adaptability, adapted to Turkish by Işık et al. (2018). The scale consisted of 12 items and had four

subscales: concern, control, curiosity, and confidence. Each item was rated on a 5-point Likert scale ranging from 1 (*not strong*) to 5 (*strongest*). Through the confirmatory factor analysis applied to the study group with undergraduate students, the model was found to fit very well ($\chi^2/df = 2.13$, GFI = .950, CFI = .966, TLI = .955, RMSEA = .059). The Cronbach alpha internal consistency reliability coefficient of the scale ranged from .76 to .90 for the undergraduate sample. The test–retest reliability coefficients were calculated to be .66 for concern, .62 for control, .68 for curiosity, .64 for confidence, and .82 for the total scale (Işık et al., 2018). In the current study, the estimated Cronbach alpha internal consistency scores were .71 (concern), .63 (control), .64 (curiosity), .60 (confidence), and .80 (total scale).

Person–major fit

The Hacettepe Career Profile (Özer et al., 2015) was used to assess Holland's vocational personality type. The scale consisted of 42 adjectives rated on a 6-point rating scale ranging from 1 (*not strong*) to 6 (*strongest*). The Cronbach's alpha internal consistency reliability coefficients for the subscales of the instrument were found to be .79 (realistic), .76 (investigative), .73 (artistic), .86 (social), .80 (enterprising), and .80 (conventional). Within the scope of criterion validity, the correlation between the Hacettepe Career Profile results and major preferences was examined by 77 participants who attended the Hacettepe University Promotion Days in 2015, using the "C index." It concluded that for the first choice of 49 participants (63.6%) and 63 participants (81.8%), at least one of the first three choices was classified as correct (person–major fit level medium/high) by Hacettepe Career Profile (Özer et al., 2015). In the current study, the estimated Cronbach's alpha internal consistency scores were .78 (realistic), .66 (investigative), .72 (artistic), .86 (social), .72 (enterprising), and .80 (conventional).

Person–environment fit can be measured in two different ways: direct and indirect (Kristof, 1996; Kennedy, 2005). Indirect measurement is accepted as a more objective assessment method compared to direct measurement (Kennedy, 2005). Therefore, this research used indirect measurement to calculate the person–major fit. Holland's code comparisons (between personality types and environment) were used when making indirect measurements. The codes defining dominant personalities and the codes of the majors were matched according to various indexes. The most well-known index of Holland code comparisons is the C index (ACT, 2009), and is therefore also used in this study. Tinsley (2000) stated that the C index is one of the best fits out of the indices that functionalize important aspects of Holland's theory. The scores obtained from the C index (Brown & Gore, 1994) has a range from 0 to 18. In this study, vocational personality codes of the participants were formed using the first letters of the three vocational personality types that received the highest points from the subscales of Hacettepe Career Profile. The codes for the majors were obtained from the Occupational Information Network (O*NET) (n.d.) database used for career counseling and vocational guidance studies in different countries (Bhatnagar, 2018; Converse et al., 2004; Hanna et al., 2019). Then, the C index was used to compare the codes of participants' vocational personality and those representing personality traits required by the major of their choice to obtain the person-fit scores (Brown & Gore, 1994). The person-fit scores ranging from 1 to 18 were converted into a 100-point system.

Demographic and categorical variables

In this research, a personal information form prepared by the researchers was used to determine the demographic characteristics, voluntary choice of one's major, and willingness to work in an area related to one's major in the future.

Procedure

Before the data collection, necessary permissions to conduct the study were obtained from the authors' institutional review board. In addition to all the instruments, an informed consent form was prepared for distribution. Research data were obtained by the researchers from students who volunteered to participate in the study. Before the data were collected, participants were informed about the purpose and importance of the research. Moreover, they were given information with respect to data privacy and instructions on how to respond to the scales. All the questionnaires were manually filled using paper and pencil, and it took approximately 15 minutes to complete.

Data Analysis

Before analyzing the data, statistical checks were made to test whether the data met the statistical assumptions. First, Mahalanobis distance was used to detect versatile extreme values, as a result of which 54 entries were excluded from the study. Thus, data obtained from 774 out of 828 students were included in the analysis. The normality of the data was evaluated using kurtosis and skewness values. Bilateral correlations between variables were examined to determine whether there was multicollinearity in the assumptions of the multiple linear regression analysis. In addition, VIF values were examined (Büyüköztürk, 2016).

Since categorical variables were discrete, they were coded into the dataset as dummy variables. The codes were as follows: voluntary choice of one's major was assigned 1, involuntary choice of one's major was 0, willingness to work in an area related to one's major in the future was 1, unwillingness to work in an area related to one's major in the future was 0. We used descriptive statistics, biserial correlation coefficient, and Pearson Correlation Coefficient to determine the partial correlation coefficients between the variables, along with the Hierarchical regression analysis, which allowed the researchers to test models fitting the theoretical background. The SPSS 22.0 package program was used for statistical analysis.

RESULTS

Pearson Correlation Coefficient and descriptive statistics results of major satisfaction, subscales of career adaptability, and person–major fit are presented in Table 2. Additionally, the biserial correlation coefficient and frequency ratios of the variables—voluntary choice of one's major, and willingness to work in an area related to one's major in the future—are also presented in Table 2.

Table 2. Descriptive statistics and intercorrelations

	1	2	3	4	5	6	7	8
1. Major satisfaction	1.00	.38**	.31**	.25**	.32**	.21**	.52**	.49**
2. Concern	.38**	1.00	.34**	.42**	.35**	.09**	.22**	.18**
3. Control	.31**	.34**	1.00	.37**	.33**	.09**	.19**	.07*
4. Curiosity	.25**	.42**	.37**	1.00	.52**	.14**	.17**	.09**
5. Confidence	.32**	.35**	.33**	.52**	1.00	.09*	.21**	.16**
6. Person–major fit	.21**	.09**	.09**	.14**	.09*	1.00	.10**	.15**
7. Voluntary choice of one's major	.52**	.22**	.19**	.17**	.21**	.10**	1.00	.43**
8. Willingness to work in an area related to one's major in the future	.49**	.18**	.07*	.09**	.16**	.15**	.43**	1.00
Mean	23.25	11.67	12.37	11.62	11.90	57.18	^a .82	^b .88
Standard deviation	5.56	2.16	2.02	2.03	1.94	18.47		

Skewness	-.83	-.60	-.82	-.55	-.53	-.22
Kurtosis	.02	.50	.60	.57	.39	-.05

** $p < .01$ * $p < .05$ $d = 1.901$

aThe frequency of students who chose their major voluntarily.

bThe frequency of students who expressed willingness to work in an area related to their major in the future.

According to Table 2, the skewness values of major satisfaction, person–major fit, concern, control, curiosity, and confidence are between -.22 and -.83, and kurtosis values are between .02 and .60. Çokluk et al. (2010) stated that when the kurtosis and skewness values fall between -1 and +1, the data show normal distribution. The scores obtained from the scales are also between -1 and +1. The Durbin–Watson coefficient ($d = 1,901$) calculated that there is no autocorrelation between the variables as it fell between 1.5 and 2.5 (Kalaycı, 2017). According to Büyüköztürk (2016), a multiple regression analysis can produce multicollinearity problems between predictive variables. If VIF values are 1 or between 1 and 5, there is no multicollinearity problem (Özdamar, 2011). In this study, VIF values vary between 1.02 and 1.56. In addition, to understand whether there are multicollinearity problems, the binary correlations between independent variables are examined. A correlation above 0.80 indicates that multicollinearity problems may exist (Büyüköztürk, 2016). Table 2 depicts that the correlational value of independent variables with each other and dependent variables does not exceed .80. Therefore, no multicollinearity problem exists in the data. The direction of Pearson Correlation coefficients shows that there is a positive significant relationship between the scores of major satisfaction and concern, control, curiosity, confidence, and person–major fit. Therefore, the data provide the assumptions required for hierarchical regression analysis.

Table 3 summarizes a three-step hierarchical regression analysis to test whether students' career adaptability subscales, person–major fit, voluntary choice of one's major, and willingness to work in an area related to one's major in the future are significant predictors of major satisfaction. In the first step, the variables of voluntary choice of one's major and willingness to work in an area related to one's major in the future were assessed, followed by the addition of the subscales of career adaptability in the second step, and the person–major fit in the third step. We determined this order because we wanted to examine the degree of predicting major satisfaction through the subscales of career adaptability and person–major fit after controlling the variables of voluntary choice of one's major and willingness to work in an area related to one's major in the future.

Table 3. Hierarchical regression analysis results of predictors of major satisfaction

Variables	B	S.E.	β	T	p	R ²	ΔR^2
Model 1					.000	.353	.353
Voluntary choice of one's major	5.393	.467	.371	11.547	.000		
Willingness to work in an area related to one's major in the future	5.667	.549	.332	10.322	.000		
Model 2					.000	.444	.091
Voluntary choice of one's major	4.360	.444	.300	9.819	.000		
Willingness to work in an area related to one's major in the future	5.198	.515	.304	10.098	.000		
Concern	.461	.080	.179	5.744	.000		
Control	.391	.083	.143	4.717	.000		
Confidence	.291	.094	.101	3.099	.002		
Curiosity	-.030	.092	.011	-3.30	.742		
Model 3					.000	.455	.011
Voluntary choice of one's major	4.324	.440	.298	9.823	.000		
Willingness to work in an area related to one's major in the future	4.975	.513	.291	9.691	.000		
Concern	.458	.079	.178	5.770	.000		
Control	.381	.082	.139	4.635	.000		

Confidence	.291	.093	.101	3.126	.002
Curiosity	-0.64	.091	-.023	-.700	.484
Person–major fit	.032	.008	.106	3.869	.000
Model 1: $F_{(2, 767)} = 209.224; p < .01$					
Model 2: $F_{(4, 763)} = 101.549; p < .01$					
Model 3: $F_{(1, 762)} = 90.774; p < .01$					

As depicted above, 3 significant models predicting major satisfaction were obtained because of the hierarchical regression analysis. In the first step, Model 1 explains 35% of the total variance. Accordingly, it can be said that voluntary choice of one's major and willingness to work in an area related to one's major in the future are significant predictors of major satisfaction. In the second step, when career adaptability subscales are included in the model, model 2 explains 44% of the total variance. Accordingly, the subscales of career adaptability contribute 9% to the total variance. In the third step, when the person–major fit variable is included, Model 3 is generated, which explains 45.5% of the total variance. Person–major fit contributes 1% to the total explained variance. As a result, the total variance explained by Model 3 has a large effect ($R^2 \geq 0.26$) according to Cohen's effect size classification (1988).

Predictors of major satisfaction are as follows in order of significance: voluntary choice of one's major ($\beta = .298, p < 0.01$), willingness to work in an area related to one's major in the future ($\beta = .291, p < 0.01$), concern ($\beta = .178, p < 0.01$), control ($\beta = .139, p < 0.01$), person–major ($\beta = .106, p < 0.01$), confidence ($\beta = .093, p < 0.01$), etc. Although there is a relationship between curiosity and major satisfaction ($r = 0.25, p < 0.01$), it is not a significant predictor when included in the model along with other subscales of career adaptability ($\beta = -.023, p < 0.05$). When the regression coefficients of the predictive variables are analyzed, it is seen that there is a positive significant relationship between voluntary choice of one's major, willingness to work in an area related to one's major in the future, concern, control, confidence, person–major fit, and major satisfaction. As a result, the three-step model accounts for about half (46%) of the total variance.

DISCUSSION

The purpose of this study was to examine aspects of Savickas' career construction theory in the domain of major satisfaction among a sample of education students. Holland's theory of vocational choice was also used in conceptualizing Savickas' vocational personality variable. Thus, the two theories were used to examine major satisfaction. In this study, a low degree positive relationship was found between person–major fit and major satisfaction, in other words, person–major fit significantly predicts major satisfaction. In the literature, several studies support (Bai & Liao, 2018; Fu et al., 2019; Mathis et al., 2017; Nafziger et al., 1975) and others do not support (Milsom & Coughlin, 2017; Pozzebon et al., 2014) this finding. However, previous studies have shown that the correlation between the two variables is low or moderate, which is similar to the results of this study (Bai & Liao, 2018; Hoeglund & Hansen, 1999; Tsabari et al., 2005). The low level of correspondence observed in this case can be explained by external factors such as job anxiety and employment options that affect major satisfaction other than person–major fit. While studying a major that is not fit for a vocational personality type may cause dissatisfaction, studying a major fit for a vocational personality type does not guarantee the attainment of satisfaction (Fu et al., 2019). Another reason for the low correspondence between person–major fit and major satisfaction could be the fact that the person–major fit scores observed in this study were low for most participants. This finding further substantiates that most students are dissatisfied with their chosen majors because that choice is often based on a national test score, rather than individual interest. In a study conducted by Bai and Liao (2018) with university students, the person–major fit levels of the students were calculated with four different fit indexes, the lowest correlation coefficient in the relationship

between person–major fit and major satisfaction was obtained with the C index. Therefore, it is thought that the C index, which was used in this study to calculate the fitness levels, also contributed to the low level of correlation between person–major fit and major satisfaction.

The study also found a significant and positive relationship between the subscales of career adaptability and major satisfaction. Interestingly, while a concern, control, and confidence were significant predictors of major satisfaction, curiosity was not found to be one. The main function of curiosity in the process of career development is research regarding appropriate career options (Savickas, 2005). Curiosity leads people to explore and take action about their careers (Sharf, 2017). Consequently, this variable is expected to significantly predict major satisfaction. This finding may be related to parental attitudes. Although parental attitudes were not considered as a variable in this study, over-controlling parenting is common in Turkey (Yılmaz, 2020). Over-controlling parenting is a parenting model that involves retaining a high level of control and giving less autonomy to the child (Padilla-Walker & Nelson, 2012). Over-controlling parents perform activities, take care of responsibilities, and solve problems that their children can do in the first place. In other words, over-controlling parents explore career options instead of their children, leading to university students being unaware of their preferences. Meanwhile, concern, control, and confidence are important predictors of major satisfaction. This finding coincides with Savickas' career construction theory and Wessel et al. (2008), which demonstrated that career adaptability is significantly related to major satisfaction. The career development process in the 21st century is different from its predecessors because of the emerging world of work that is digitalized (Industry 4.0). The current process is more dynamic and flexible. With this change in the career process, academic majors and satisfaction with the major have also changed. Therefore, it has become very difficult for individuals to decide on the major they will study in university. Individuals with high career adaptability are those who plan for the future, make preparations to structure their careers by determining what they can do about it, wonder and explore different options that await them, and are confident about reaching their goals (Savickas, 2005). In this study, it was foreseen that, based on their characteristics of high career adaptability, some individuals can make effective career decisions increasing their major satisfaction. These individuals are also better equipped to cope with the contingent world of work and fare better in career transition phases. Thus, it is an expected result that career adaptability is an important variable in explaining major satisfaction in 21st-century career development. As a result, in this study, it is concluded that career adaptability has a higher predictive value than person–major fit for major satisfaction. This finding is similar to Wessel et al.'s study (2008).

The student's willingness to work in an area related to their major in the future and the voluntary choice of their major predicts satisfaction significantly. It is believed that students who choose their major willingly know what they want and have self-regulation skills, resulting in satisfaction from their preferred major. The majors in which students are educated also affect the development of vocational self-concepts. According to Savickas (2002; 2005), the career constructing process takes place with the application of the developing vocational self-concept in work roles, which also increases job satisfaction. In addition, vocational success arises when the individual's vocational characteristics, which are in line with vocational self-concepts, correspond with the work roles required by the field they want to work in. Therefore, students who want to work in an area related to their major shape their vocational self-concept through education to invest and implement in their future vocational lives. Therefore, they are expected to be satisfied with their majors. As a result, these two variables significantly predict major satisfaction.

Based on these results, recommendations for practitioners and researchers can be listed as follows. With the redesign of secondary-level educational activities in Turkey, it was observed that career services were needed for students. Subsequently, career offices were established in secondary educational institutions (Turkish Ministry of National Education, 2019). The career offices are aimed at effectively guiding students during their transition from high schools to universities. Therefore, individual or group guidance that increases the career adaptability levels of students can be offered by the counselors, contributing to the students' decision of choosing a department where they will be satisfied. Further intervention should be conducted for students who are in the transition from high school to university life, exploring their personality types and interests that are fit for academic majors. These interventions can be offered as frameworks for career counseling and guidance service that deals with the individual from a developmental perspective, rather than just counseling based on the university entrance exam scores. For counselors working in the career centers of universities, it may be recommended to increase career adaptability in guidance programs to increase major satisfaction and further department satisfaction.

Having said that, this research has several limitations. First, the research group is limited to the department of education at a state university in Turkey. Therefore, the results obtained can only be generalized to students with similar characteristics. Another limitation is that the data on person–major fit is limited to results obtained through the C Index. Different objective measurements and indexes can be used in future research for measuring the person–major fit. In addition, since the person–major fit was evaluated with objective measurement in this research, it did not contain data regarding the person–major fit levels perceived by students. In future studies, objective (indirect) methods and subjective (direct) methods can be used together to measure the person–major fit. Also, this study focused on several variables selected in the context of the career construction theory of Savickas (2005) in predicting major satisfaction. Future studies on major satisfaction should address factors such as employment opportunities which is a contextual factor, and parental attitudes influenced by the collectivist nature of Turkish culture to understand major satisfaction.

REFERENCES

- ACT, Inc. (2009). *The ACT Interest Inventory technical manual*. <https://www.act.org/content/dam/act/unsecured/documents/ACTInterestInventoryTechnicalManual.pdf>
- Akın, A., Odabaşı, Ş., & Özçelik, B. (2015). Akademik branş memnuniyeti ölçeği Türkçe formunun geçerlik ve güvenilirlik çalışması [The validity and reliability studies of Turkish version of the academic majors satisfaction scale]. *The Journal of Academic Social Science Studies*, 36, 1-7. <http://doi.org/10.9761/JASSS2880>
- Allen, M. L. (1996). Dimensions of educational satisfaction and academic achievement among music therapy majors. *Journal of Music Therapy*, 33, 147-160. <https://doi.org/10.1093/jmt/33.2.147>
- Astin, A. W. (1965). Effect of different college environments on the vocational choices of high aptitude students. *Journal of Counseling Psychology*, 12(1), 28-34. <https://doi.org/10.1037/h0021957>
- Bai, L. & Liao, H. Y. (2018). The relation between interest congruence and college major satisfaction: Evidence from the basic interest measures. *Journal of Career Assessment*, 27(4), 1-17. <https://doi.org/10.1177/1069072718793966>
- Bhatnagar, M. (2018). Career guidance in India based on O* NET and cultural variables. *International Journal for Educational and Vocational Guidance*, 18(1), 81-99. <https://doi.org/10.1007/s10775-017-9349-y>
- Blömeke, S., Houang, R., Hsieh, F. J., & Wang, T. Y. (2017). Effects of job motives, teacher knowledge and school context on beginning teachers' commitment to stay in the profession: A longitudinal study in Germany, Taiwan and the United States. In M. Akiba & G. K. LeTendre (Eds.), *International Handbook of Teacher Quality and Policy* (pp. 374–387). London: Routledge.
- Brown, S. D. & Gore, P. A. (1994). An evaluation of interest congruence indices: Distribution characteristics and measurement properties. *Journal of Vocational Behavior*, 45(3), 310-327. <https://doi.org/10.1006/jvbe.1994.1038>
- Büyükgöze-Kavas, A. (2014). Validation of the career adapt-abilities scale-Turkish form and its relation to hope and optimism. *Australian Journal of Career Development*, 23(3), 125-132. <https://doi.org/10.1177/1038416214531931>
- Büyüköztürk, Ş. (2016). *Sosyal bilimler için veri analizi el kitabı [Handbook of data analysis for Social Sciences]* (22nd ed.). Ankara: Pegem Akademi.
- Chan, S. H., Mai, X., Kuok, O. M., & Kong, S. H. (2016). The influence of satisfaction and promotability on the relation between career adaptability and turnover intentions. *Journal of Vocational Behavior*, 92, 167-175. <https://doi.org/10.1016/j.jvb.2015.12.003>
- Chang, M.-L. (2009). An appraisal perspective on teacher burnout: Examining the emotional work of teachers. *Educational Psychology Review*, 21, 193–218. <https://doi.org/10.1007/s10648-009-9106-y>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education* (6th ed.). London: Routledge.
- Converse, P. D., Oswald, F. L., Gillespie, M. A., Field, K. A., & Bizot, E. B. (2004). Matching individuals to occupations using abilities and the O* NET: Issues and an application in career guidance. *Personnel Psychology*, 57(2), 451-487. <https://doi.org/10.1111/j.1744-6570.2004.tb02497.x>
- Crisci, A., Sepe, E., & Malafroate, P. (2019). What influences teachers' job satisfaction and how to improve, develop and reorganize the school activities associated with them. *Quality & Quantity*, 53, 2403-2419. <https://doi.org/10.1007/s11135-018-0749-y>
- Çokluk, Ö., Şekercioğlu, G., & Büyüköztürk, Ş. (2010). *Sosyal bilimler için çok değişkenli istatistik: SPSS ve LISREL uygulamaları [Multivariate statistics for social sciences: SPSS and LISREL applications]*. Ankara: Pegem Akademi.
- Deniz, M.E., Eryılmaz, A., & Ersöz, A. (2018). *Öğrenci sorunları araştırma raporu [Student problems research report]*, Yıldız Teknik Üniversitesi. [http://www.ogrde.yildiz.edu.tr/media/files/aa\(2\).pdf](http://www.ogrde.yildiz.edu.tr/media/files/aa(2).pdf)

- Duffy, R. D., Douglass, R. P., & Autin, K. L. (2015). Career adaptability and academic satisfaction: Examining work volition and self efficacy as mediators. *Journal of Vocational Behavior, 90*, 46-54. <https://doi.org/10.1016/j.jvb.2015.07.007>
- Eun, H., Sohn, Y. W., & Lee, S. (2013). The effect of self-regulated decision making on career path and major-related career choice satisfaction. *Journal of Employment Counseling, 50*, 98-109. <https://doi.org/10.1002/j.2161-1920.2013.00029.x>
- Feldman, K.A., Ethington, C. A., & Smart, J.C. (2001). A further investigation of major fields and person-environment fit: Sociological vs. psychological interpretations of Holland. *Journal of Higher Education, 72*, 670-698. <https://doi.org/10.1080/00221546.2001.11777121>
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design and evaluate research in education* (8th ed.). New York: McGraw Hill.
- Fu, M., Zhang, L. F., & Li, B. (2019). Revisiting the congruence-satisfaction relationship: the role of external forces. *Journal of Career Development, 46*(3), 1-16. <https://doi.org/10.1177/0894845317737379>
- Kalaycı, Ş. (2017). *SPSS uygulamalı çok değişkenli istatistik teknikleri [SPSS applied multivariate statistics techniques]* (8th ed.). Ankara: Dinamik Akademi.
- Kara, S. (2020). Investigation of job satisfaction and burnout of visual arts teachers. *International Journal of Research in Education and Science, 6*(1), 160-171. <https://www.ijres.net/index.php/ijres/article/view/817/pdf>
- Kennedy, M. (2005). *An integrative investigation of person-vocation fit, person-organization fit, and person-job fit perceptions* (Publication No. 3181052). [Doctoral dissertation, University of North Texas]. ProQuest Dissertations & Theses Global.
- Kristof, A. L. (1996). Person-organization fit: An integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology, 49*, 1-49. <https://doi.org/10.1111/j.1744-6570.1996.tb01790.x>
- Liu, S., & Onwuegbuzie, A. J. (2012). Chinese teachers' work stress and their turnover intention. *International Journal of Educational Research, 53*, 160-170. <https://doi.org/10.1016/j.ijer.2012.03.006>
- Logue, C. T., Lounsbury, J. W., Gupta, A., & Leong, F. T. (2007). Vocational interest themes and personality traits in relation to college major satisfaction of business students. *Journal of Career Development, 33*(3), 269-295. <https://doi.org/10.1177/0894845306297348>
- Haibo, Y., Xiaoyu, G., Xiaoming, Z., & Zhijin, H. (2018). Career adaptability with or without career identity: How career adaptability leads to organizational success and individual career success?. *Journal of Career Assessment, 26*(4), 717-731. <https://doi.org/10.1177/1069072717727454>
- Han, H., & Rojewski, J. W. (2015). Gender-specific models of work-bound Korean adolescents' social supports and career adaptability on subsequent job satisfaction. *Journal of Career Development, 42*(2), 149-164. <https://doi.org/10.1177/0894845314545786>
- Hanna, A., Gregory, C., Lewis, P. M., & Rounds, J. (2019). International Career Assessment Using the Occupational Information Network (O* NET). In J. A. Athanasou & H. N. Perera (Eds.), *International Handbook of Career Guidance* (2nd ed.) (pp. 581-612). Springer, Cham.
- Heckman, J. J. (2000). Policies to foster human capital. *Research in Economics, 54*, 3-56. <https://doi.org/10.1006/recc.1999.0225>
- Hirschi, A. (2018). The fourth industrial revolution: Issues and implications for career research and practice. *The Career Development Quarterly, 66*(3), 192-204. <https://doi.org/10.1002/cdq.12142>
- Hoeglund, T. J., & Hansen, J. I. C. (1999). Holland-style measures of congruence: are complex indices more effective predictors of satisfaction?. *Journal of Vocational Behavior, 54*(3), 471-482. <https://doi.org/10.1006/jvbe.1998.1675>
- Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments* (3rd ed.). Florida: PAR Inc.

- Işık, E., Yeğin, F., Koyuncu, S., Eser, A., Çömlekciler, F., & Yıldırım, K. (2018). Validation of the Career adaptabilities scale–short form across different age groups in the Turkish context. *International Journal for Educational and Vocational Guidance, 18*(3), 297-314. <https://doi.org/10.1007/s10775-018-9362-9>
- Jiang, Z. (2017). Social support and career psychological states: an integrative model of person–environment fit. *Journal of Career Assessment, 25*(2), 219-237. <https://doi.org/10.1177/1069072715621019>
- Jiang, Z., & Jiang, X. (2015). Core self-evaluation and life satisfaction: The person–environment fit perspective. *Personality and Individual Differences, 75*, 68-73. <https://doi.org/10.1016/j.paid.2014.11.013>
- Maggiore, C., Rossier, J., & Savickas, M. L. (2017). Career adaptabilities scale–short form (CAAS-SF) construction and validation. *Journal of Career Assessment, 25*(2), 312-325. <https://doi.org/10.1177/1069072714565856>
- Mathis, E. L., Bullock-Yowell, E., Leuty, M. E., & Nicholson, B. C. (2017). Student congruence with academic major: Do hours worked and attitude affect satisfaction and success?. *Australian Journal of Career Development, 26*(3), 142-152. <https://doi.org/10.1177/1038416217727737>
- Milli Eğitim Bakanlığı [Turkish Ministry of National Education] (2019). *Lisede ne yaptık? [What did we do in high school?]*. https://www.meb.gov.tr/meb_iys_dosyalar/2019_05/19153836_MEB_Sunum_v0.8.pdf
- Milsom, A., & Coughlin, J. (2017). Examining person–environment fit and academic major satisfaction. *Journal of College Counseling, 20*(3), 250-262. <https://doi.org/10.1002/jocc.12073>
- Nafziger, D. H., Holland, J. L., & Gottfredson, G. D. (1975). Student–college congruency as a predictor of satisfaction. *Journal of Counseling Psychology, 22*(2), 132–139. <https://doi.org/10.1037/h0076340>
- Naralan, A. & Kaleli, S. S. (2012). Üniversite öğrencilerinin üniversiteden beklentileri ve bölüm memnuniyeti araştırması: Atatürk Üniversitesi örneği. [University students' expectations from university and the satisfactions level from their departments: Atatürk University case] *Organizasyon ve Yönetim Bilimleri Dergisi, 4*(1), 1-11. <https://dergipark.org.tr/en/download/article-file/150999>
- Nauta, M. M. (2007). Assessing college students' satisfaction with their academic majors. *Journal of Career Assessment, 15*(4), 446-462. <https://doi.org/10.1177/1069072707305762>
- Niles, S. G. & Harris Bowsbey, J. (2013). *Career development interventions in the 21st century* (F. Korkut-Owen, Trans.). Ankara: Nobel Yayınevi. (Original work published 2002).
- Occupational Information Network (O*NET) (n.d.). <https://www.onetonline.org/>
- Özdamar, K. (2011). *Paket programlar ile istatistiksel veri analizi [Statistical data analysis with packet programs]* (1st vol., 8th ed.). Eskişehir: Kaan Kitabevi.
- Özer, A., Yılmaz, O., Osmanlı, N., & Yiğit, S. (2015). Üniversite bölüm seçiminde kişilik–eğitim alanı uyumuna yönelik bir ölçme aracının geliştirilmesi: Hacettepe Kariyer Profili [Developing a measurement tool for personality–field of study fit in major selection: Hacettepe Career Profile]. *13th National Congress of Psychological Counseling and Guidance Abstract Book*, 956-959.
- Padilla-Walker, L. M., & Nelson, L. J. (2012). Black hawk down?: Establishing helicopter parenting as a distinct construct from other forms of parental control during emerging adulthood. *Journal of Adolescence, 35*(5), 1177–1190. <https://doi.org/10.1016/j.adolescence.2012.03.007>
- Pesch, K. M., Larson, L. M., & Seipel, M. T. (2018). Career certainty and major satisfaction: The roles of information-seeking and occupational knowledge. *Journal of Career Assessment, 26*(4), 583-598. <https://doi.org/10.1177/1069072717723093>
- Pozzebon, J. A., Ashton, M. C., & Visser, B. A. (2014). Major changes: Personality, ability, and congruence in the prediction of academic outcomes. *Journal of Career Assessment, 22*(1), 75-88. <https://doi.org/10.1177/1069072713487858>
- Savickas, M. L. (1997). Career adaptability: An integrative construct for life-span, life-space theory. *The Career Development Quarterly, 45*(3), 247-259. <https://doi.org/10.1002/j.2161-0045.1997.tb00469.x>

- Savickas, M. L. (2002). Career construction: A developmental theory of vocational behavior. In D. Brown (Ed.), *Career choice and development* (pp. 149-205) (4th ed.). San Francisco: Jossey-Bass.
- Savickas, M. L. (2005). The theory and practice of career construction. In S. D. Brown, & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 42–70). Hoboken, NJ: Wiley.
- Savickas, M. L., & Porfeli, E. J. (2012). Career adapt-abilities scale: construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior, 80*(3), 661-673. <https://doi.org/10.1016/j.jvb.2012.01.011>
- Sharf, R. S. (2017). *Applying career development theory to counseling* (F. Bacanlı & K. Öztemel, Trans.). Ankara: Pegem Akademi. (Original work published 2013).
- Skaalvik, E. M., & Skaalvik, S. (2011). Teacher job satisfaction and motivation to leave the teaching profession: Relations with school context, feeling of belonging, and emotional exhaustion. *Teaching and Teacher Education, 27*, 1029–1038. <https://doi.org/10.1016/j.tate.2009.11.001>
- Sovet, L., Park, M. S. A., & Jung, S. (2014). Validation and psychometric properties of academic major satisfaction scale among Korean college students. *Social Indicators Research, 119*(2), 1121-1131. <https://doi.org/10.1007/s11205-013-0537-y>
- Spector, P. E. (1997). *Job satisfaction: Application, assessment, causes, and consequences*. Thousand Oaks, CA: Sage.
- Stoeber, J., & Rennert, D. (2008). Perfectionism in school teachers: Relations with stress appraisals, coping styles, and burnout. *Anxiety, Stress, and Coping, 21*, 37–53. <https://doi.org/10.1080/10615800701742461>
- Super, D. E. (1953). A theory of vocational development. *American Psychologist, 8*, 185-190. <https://doi.org/10.1037/h0056046>
- Şahin, İ., Zoraloğlu, Y. R., & Şahin Fırat, N. (2011). Üniversite öğrencilerinin yaşam amaçları, eğitsel hedefleri, üniversite öğreniminden beklentileri ve memnuniyet durumları [University students' aims in life, educational goals, expectations from the university and their state of satisfaction]. *Kuram ve Uygulamada Eğitim Yönetimi, 17*(3), 429-452. <https://dergipark.org.tr/en/download/article-file/108199>
- Tinsley, H. E. (2000). The congruence myth: An analysis of the efficacy of the person–environment fit model. *Journal of Vocational Behavior, 56*(2), 147-179. <https://doi.org/10.1006/jvbe.1999.1727>
- Tsabari, O., Tziner, A., & Meir, E. I. (2005). Updated meta-analysis on the relationship between congruence and satisfaction. *Journal of Career Assessment, 13*(2), 216-232. <https://doi.org/10.1177/1069072704273165>
- Wanberg, C. R., & Muchinsky, P. M. (1992). A typology of career decision status: Validity extension of the vocational decision status model. *Journal of Counseling Psychology, 39*, 71–80. <https://doi.org/10.1037/0022-0167.39.1.71>
- Wessel, J. L., Ryan, A. M., & Oswald, F. L. (2008). The relationship between objective and perceived fit with academic major, adaptability, and major-related outcomes. *Journal of Vocational Behavior, 72*(3), 363-376. <https://doi.org/10.1016/j.jvb.2007.11.003>
- Yılmaz, H. (2020). Türkiye’de helikopter ebeveynlik eğilimi ve helikopter ebeveynlerin demografik özellikleri [Helicopter parenting tendency and demographics of helicopter parents in Turkey]. *Journal of Social Policy Studies, 20*(46), 133-160. <https://doi.org/10.21560/spcd.v20i54504.540233>
- Yükseköğretim Kurulu [Turkish Council of Higher Education] (2019). *2018-2019 öğretim yılı yükseköğretim istatistikleri [2018-2019 academic year higher education statistics]*. <https://istatistik.yok.gov.tr>
- Zacher, H. (2015). Daily manifestations of career adaptability: Relationships with job and career outcomes. *Journal of Vocational Behavior, 91*, 76-86. <https://doi.org/10.1016/j.jvb.2015.09.003>

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Author Contributions

This article is produced from the master's thesis of the first author, conducted under the supervision of second author, who guided first author in all stages of the study. Both the authors collaborated to write this article. They substantially and equally contributed in each step of the study.

Conflict of Interest

It has been reported by the authors that there is no conflict of interest.

Funding

This research was supported by Pamukkale University Scientific Research Projects Coordinatorship under the project numbers 2018EĞBE011 and 2019KKP089.

Note

The summary of the research was presented at the 21st International Psychological Counseling and Guidance Congress held in Antalya, Turkey, on October 24–27, 2019.

Ethical Statement

The authors declare that they have carried out the research within the framework of the Helsinki Declaration and with the participation of volunteer students. In line with this, the study was permitted by Pamukkale University, Scientific Research and Publication Ethics Committee.

Ethics Committee Name: Pamukkale University, Scientific Research and Publication Ethics Committee.

Approval Date: 07/11/2018.

Approval Document Number: 68282350/2018/G012