

# ***The Predictive Power of Family Environment and Communication Skills on Problem Solving Skills: An Investigation on Vocational School Students***

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## ***Abstract:***

*The aim of this study was to investigate the relationships between family environment, communication skills and problem solving skills in health services vocational school and technical vocational school students. The population of the study was consisted of the health services vocational high school and technical vocational high school student who University of Eskişehir Osmangazi and University of Bilecik S. Edebali. The participants were randomly selected different departments during 2011- 2012 academic year. A total of 333 students (101 female, 232 male) completed the Inventory of Problem Solving Skills, Family Environment and Communication Skills Scale. The study found that students' points on family unity, communication skills, and problem solving scales have significant distinctions according to attending department. Additionally, regression analysis show that family unity are predictors of self-confidence and planned approach. Communication skills are predictors of problem solvings' all of sub-dimensions*

**Keywords:** Family Environment, Communication Skills, Problem Solving.



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# *Aile Ortamı ve İletişim Becerilerinin Problem Çözme Becerilerini Yordama Gücü: Meslek Yüksek Okulu Öğrencileri Üzerine Bir Araştırma\**

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## **Özet:**

Araştırmanın amacı Sağlık Hizmetleri Meslek Yüksekokulu ve Teknik Meslek Yüksekokulu öğrencilerinin aile ortamı ve iletişim becerileri ile problem çözme becerileri arasındaki ilişki incelemektir. Araştırmada tarama modellerinden ilişkisel tarama modeli ve kesitsel çalışma deseni kullanılmıştır. Veriler farklı yaş grubundaki üniversite öğrencilerinden toplanmıştır. Araştırmanın evrenini Eskişehir Osmangazi Üniversitesi ve Bilecik Şeyh Edebali Üniversitesinde Sağlık Hizmetleri Meslek Yüksekokulu, Meslek Yüksekokulunda teknik programlara devam eden öğrenciler oluşturmuştur. Araştırmada üniversite öğrencilerinin aile birliği, iletişim becerileri ve problem çözme alt boyutlarının devam ettikleri bölüm değişkenine göre farklılaştığı bulunmuştur. Teknik Meslek Yüksek Okulu öğrencilerinin aile ortamı ve iletişim becerileri puanları Sağlık Hizmetleri Meslek Yüksek Okulu öğrencilerinin puanlarından yüksektir. Sağlık Hizmetleri Meslek Yüksek Okulu öğrencilerinin problem çözme becerileri Teknik Meslek Yüksek Okulu öğrencilerinin problem çözme becerilerinden daha iyidir.

**Anahtar Kelimeler:** Aile Ortamı, İletişim Becerileri, Problem Çözme

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## GENİŞLETİLMİŞ ÖZET

### Problem:

Bu araştırmanın temel amacı Sağlık Hizmetleri Meslek Yüksekokulu ve Teknik Meslek Yüksekokulu öğrencilerinin aile ortamı ve iletişim becerileri ile problem çözme becerileri arasındaki ilişki incelemektir. Araştırmanın iki alt amacı bulunmaktadır. Birinci alt amacı, sağlık hizmetleri Meslek Yüksekokulu ve Teknik Meslek Yüksek Okulu öğrencilerin aile ortamı, iletişim becerileri ve problem çözme becerileri devam ettikleri program türüne göre farklılaşıp farklılaşmadığını incelemektir. Araştırmanın ikinci alt amacı ise, Sağlık Hizmetleri Meslek Yüksekokulu ve Teknik Meslek Yüksekokulu öğrencilerinin aile ortamı ve iletişim becerileri problem çözme becerilerini yordayıp yordamadığını sınamaktır.

### Yöntem:

Araştırmada tarama modellerinden ilişkisel tarama modeli ve kesitsel çalışma deseni kullanılmıştır. Veriler farklı yaş grubundaki üniversite öğrencilerinden toplanmıştır. Araştırmanın evrenini Eskişehir Osmangazi Üniversitesi ve Bilecik Şeyh Edebali Üniversitesinde Sağlık Hizmetleri Meslek Yüksekokulu, Meslek Yüksekokulunda teknik programlara devam eden öğrenciler oluşturmuştur. Katılımcılar 2011-2012 öğretim yılında farklı programa devam eden öğrencilerden yansız örnekleme yöntemi ile belirlenmiştir. Toplam 333 öğrenciye (101 kadın ve 232 erkek) Problem Çözme Envanteri, Aile Ortamı Ölçeği ve İletişim Becerileri Ölçeği uygulanmıştır. Araştırmanın verileri Fowler (1982) tarafından geliştirilen ve Usluer (1989) tarafından Türkiye'ye uyarlanan, Aile Ortamı Ölçeği, Korkut (1997) tarafından geliştirilen İletişim Becerilerini Değerlendirme Ölçeği, Heppner ve Peterson (1982) tarafından geliştirilen ve Şahin, Şahin ve Hepner (1993) tarafından Türkiye'ye uyarlanan Problem Çözme Envanteri ile toplanmıştır. Araştırma ölçekleri gönüllü öğrencilere uygulanmıştır. Veriler SPSS 15.0 paket programı ile analiz edilmiş ve verilerin bağımsız gruplar için t testi ve basit (simple) regresyon analizi ile sınanmıştır.

### Bulgular ve Tartışma:

Araştırmada üniversite öğrencilerin aile birliği, iletişim becerileri ve problem çözme alt boyutlarının devam ettikleri bölüm değişkenine göre farklılaştığı bulunmuştur. Teknik Meslek Yüksek Okulu öğrencilerin aile birliği ve iletişim becerileri puanları Sağlık Hizmetleri Meslek Yüksek Okulu öğrencilerin puanlarından yüksektir. Sağlık Hizmetleri Meslek Yüksek Okulu öğrencilerin problem çözme becerileri Teknik Meslek Yüksek Okulu öğrencilerin problem çözme becerilerinden daha iyidir. Sağlık Hizmetleri Meslek Yüksek Okulu ve Teknik Meslek Yüksek Okulu öğrencilerin aile birliği puanları problem çözmenin kendine güvenli yaklaşım ve planlı yaklaşım puanlarını yordamaktadır. Aile birliği kendine güvenli yaklaşım ve planlı yaklaşımın toplam varyansın %4,2'sini açıklamaktadır. Aile kontrol boyutu öğrencilerin problem çözme puanlarını yordamamaktadır. Aile birliği puanları problem çözmenin kendine güvenli yaklaşım ve planlı yaklaşım puanlarını negatif yönde anlamlı düzeyde yordamaktadır. İletişim becerileri puanları problem çözmenin aceleci yaklaşım, düşünen yaklaşım, kaçınan yaklaşım, değerlendirici yaklaşım, kendine güvenli yaklaşım, planlı yaklaşım puanlarını yordamaktadır. İletişim becerileri puanları aceleci yaklaşımın toplam varyansın % 1.6'sını, düşünen

yaklaşımın% 11.9'unu, kaçınan yaklaşımın %,10.4'ünü, değerlendirici yaklaşımın %6.4'ünü, kendine güvenli yaklaşımın %12.0'sini ve planlı yaklaşımın %14.1'ini açıklamaktadır. İletişim becerileri aceleci yaklaşım, düşünen yaklaşım kaçınan yaklaşım, değerlendirici yaklaşım, kendine güvenli yaklaşım, planlı yaklaşım puanlarını negatif yönde yordamaktadır.

Aile bireyin kişiliğini etkileyen önemli bir faktördür. Ailenin kişilik özellikleri, aile yapısı, eğitim düzeyi, mesleği, sağlık durumu, sosyo-ekonomik ve kültürel koşullar, çocuk yetiştirme tarzları, ebeveynin disiplin anlayışı, birlikte ya da ayrı yaşamaları ve ailevi faktörler arasındaki ilişkiler ebeveynlerin çocuklarına yaklaşımlarını ve kendinilerini algılamalarını etkilemektedir. Aile ilişkilerini etkileyen bu faktörler sağlık hizmetleri meslek yüksekokulu ve teknik meslek yüksekokulu öğrencilerin ailesine yönelik algıların farklılaşmasına neden olabilir. Ergenlik dönemi birey için hızlı ve kapsamlı değişim dönemdir. Bu dönemde, ergen hem fiziksel hem de zihinsel olarak önemli değişiklikler olmaktadır. Bu dönemde ailede yaşanan çatışmalar aileden uzaklaşarak akranlarıyla iletişim kurmalarına ve çatışmaları çözmede etkileşim ve iletişimi kullanmayı tercih etmesine neden olabilir. Ergenlik döneminin bu özellikleri üniversite öğrencilerinin iletişim becerilerinin farklılaşmasına neden olabilir. Aile birliği üniversite öğrencilerinin problem çözme becerilerinde önemli bir etkidir. Yakın ilişki, etkili açık iletişim ve algılanan aile desteği ergenlik döneminde oldukça önemlidir. Aile birliği, ailelerin eylemlerini genelleştirmelerine yardımcı olarak problemlerle etkili şekilde baş etmelerini sağlayabilir. İletişim becerileri üniversite öğrencilerinin problem çözme becerilerinde önemli bir etkidir. Etkili problem çözme etkin iletişimle sağlanır. İletişim becerilerinde başarılı olan bireyler problem çözme becerilerinin farkında, anlayışlı, düşünceli, daha az kaygılı ve tedbirlidirler. Ayrıca iletişim becerilerinde başarısız olan bireylerle karşılaştırıldığında problem çözmede, bakış açısını almada ve sosyal ilişkilerde daha başarılıdırlar. Bu nedenle iletişim becerileri öğrencilerin problem çözme becerilerinde önemli bir etken olabilir.

### **Sonuç ve Öneriler:**

Araştırmada öğrencilerin aile birliği, iletişim becerileri ve problem çözme alt boyutlarının devam ettikleri bölüm değişkenine göre farklılaştığı bulunmuştur. Ayrıca, regresyon analizi sonuçları aile birliği alt boyutunun problem çözme becerilerinin kendine güven ve planlı yaklaşım alt boyutlarını ve iletişim becerilerinin problem çözme becerilerinin bütün alt boyutlarını yordadığını göstermiştir. Sonuca dayalı olarak şu öneriler getirilmiştir. Araştırma farklı meslek yüksekokulu grupları ile yapılarak sonuçları karşılaştırılabilir. Aile birliği ve iletişim eğitim programları uygulanarak problem çözme becerileri üzerindeki etkileri incelenebilir. Yüksekokulu öğrencilerin aile birliği, iletişim becerileri ve problem çözme becerilerini etkileyen faktörleri incelemeye yönelik araştırmalar yapılabilir.

## INTRODUCTION

Adaptation to situations is possible with effective problem solving in a time of rapid technological change, changes in health technologies, innovations and novelty situations faced. According to Heppner and Petersen (1982), problem solving is synonymous with the concept of coping with problems. Individuals, who appraised their problem solving skills as effective, are characterized by a high degree of confidence in their day-to day problems, by regulating their emotional experience and expressions, and by approaching rather than avoiding problematic situations (Heppner and Petersen, 1982). Heppner and Krauskopf (1987) defined that self-perceived problem solving ability serves a central function in the way a person perceives and experiences different aspects of dealing with problematic situations. Problem solving has sub-dimensions of problem solving confidence, approach avoidance and personal control. Problem-solving confidence is defined as self-assurance while engaging in problem-solving activities. Approach-avoidance refers to a general tendency in individuals to approach or avoid problem-solving activities. Personal control refers to one's feeling of being in control of a situation and one's inability to control a situation (Clark, 2002; Şahin, Şahin and Heppner, 1993; Varvel, 2009). Some of the problems encountered in interpersonal relationships and expressing are caused by failed transmission of requests about their feelings or interests, and due to the lack of individuals' interests and desires being told to others that are important to them (Belter, 2008; Çetinkaya and Alparşlan, 2011).

Family is a unit where adults and children interact with and influence each other. The family affects individual's personal characteristics, attitudes and behavior. Individuals learn about knowledge, skills, attitudes, and behavior and thought patterns in life in the family setting and adapt them for later use in their lives. A healthy and quality family environment has a positive influence on individuals' emotional-social development and the development of the ego, as well as personality traits (Wiltfang and Scarbecz, 1990; Farber and Hertzog, 2002). Characteristics of family environment are determined based on parents' social status, housing type, domestic relations, number of siblings, and siblings' relations. Parents, based on their conditions during childhood, face a lifetime of events, personality patterns, education levels, environmental conditions as they grow up, social status of family as too many features affects to viewpoints of the individual against the family (Günaydın, 2008). Health of family environment is dependent on family members themselves due to peace in the family, balanced, peaceful, respectful and loving interactions among members (Karataş- Bolat, 2002). Family environment is an interpersonal atmosphere in the family structure, which evolves according to the characteristics of interpersonal relationships (Usluer, 1989). Family environment has two sub-dimensions including family unity and family control (Fowler, 1982). Family unity includes support between family members in their interpersonal relations, connections, possibility to help each other, being supportive, expressing their feelings directly, being allowed to and promote open behavior and trust in one's self, self-help, being able to make their own decisions and something to think for themselves.

Family control includes control of family members and constant direction of family members. Family control is explained as obeying to the rules put in various ways by the family members and making decisions accordingly and based on designated tasks. System of family control is tough and resistant to change (Aydın and Öztütüncü, 2001). Family environment and communication within the family significantly affect an individual's life and closed or open forms of communication in the family environment affect psychological and physical health of the individuals (Aufseeser et al, 2006).

Communication is an important factor in effective interpersonal relationships and interactions. Communication is connection of thoughts and feelings between people (Cüceloğlu, 1999). The most important elements of the communication process are finding the best method to message for what an individual has to say, using correct expressions, making sure others understand the message accurately, and to understand the answer (Sillars, 1995). Communication skills are important for expressing oneself clearly and openly, also for others in listening carefully and for their ability to understand what others say fully and accurately (Çetinkaya and Alparlan, 2011). Family environments and communication skills are thought to be effective in problem solving skills. This study aims to examine whether attendance in high school plays a decisive role in the family environment, communication skills, problem solving of individuals and the objective of the study is to analyze the level at which family environment and communication skills could predict problem solving.

Researches also demonstrate that family environment and communication within the family significantly affects an individual's life and closed or open forms of communication in the family environment are effected psychological, physical health and problem solving skills of the individuals (Aufseeser et al, 2006). For that reason, the objective of this study was to to examine whether they are attending the high school section plays a decisive role in family environment, communication skills, problem solving and aim of the study is to analyse the level at which family environment and communication skills can predict problem solving.

## METHOD

The study was designed in survey model and the data obtained from individuals of different ages and cross-sectional study design was used.

Scales were applied students who Bilecik S. Edebalı University Vocational Schools' technical program (metallurgy, computer, electronics-communication technology, electronics technology, construction technology) and Eskişehir Osmangazi University vocational school for health services' (emergency assistance, medical documentation and secretarial, optician program, orthotics and prosthetics) during 2011- 2012 academic year. Analyses was made a total of 333 individuals between the ages of 19-23 and 101 (%30.33) female, 232 male (%69.67) students. This study group, the mean age of the students is 19.16 and the standard deviation is 2.14. The population of study constitutes of about 670 students attending Bilecik Ş. Edebalı University and 285 students attending Eskişehir Osmangazi University.



Students' were excluded from the study that scales completed to missing. Therefore, in this research the number of participants was different.

As data collection tools were applied Family Environment Questionnaire (Fowler, 1982), Evaluating Communication Skills Scale (Korkut, 1997) and Problem Solving Inventory (Heppner and Peterson, 1982).

The scale was developed by Fowler (1982). In the Turkish context, the validity and reliability of this questionnaire has been confirmed by Usluer (1989). The Turkish form of the questionnaire has two sub-dimensions, namely family -unity and family-control. The Scales' original form is including 30 items but Turkish form is including 26 items. 4 items (6, 10, 27, and 30) were removed from the scale as these items were below the correlation coefficient level of .15 which is accepted as a criterion. The variance defined by the two-dimension questionnaire was found to be family unity 22.9 %, family-control 10.5% and total 33.4% in the factor analysis. The Cronbach's alpha internal consistency coefficient values of the questionnaire were found to be 0.82 for the family-unity, and 0.74 for the family control.

The scale was developed by Korkut (1996) as a measure of individuals' self-assessed communication skills. This scales' construct validity was conducted principal components of factor analysis, and was found one- dimension by Korkut (1996). Korkut (1996-1997) reported the test-retest reliability and Cronbach's alpha to be acceptable for 14-17 old students. Yüksek (1997) applied Interpersonal Relations Style Scale by adapted by Öztan (1994) for validity similar scales on university students and validity coefficient was found .54 for university students. Korkut (1997) reported the test-retest reliability coefficient .78 and Cronbach's alpha coefficient .86 on university students. Boys' and girls' communication skills were compared with the mean scores of t value obtained was statistically significant ( $t = 3.00, p < .01$ )

The scale was developed by Heppner and Peterson (1982) and was adapted by Şahin, Şahin and Hepner (1993). Cronbach's alpha coefficient of .90 obtained for the entire scale and for the subscales ranged from .85 to .72. The scales' item-total score correlations ranged between .25 and .71. The test-retest reliability coefficients for the subscales was varied from  $r = .83$  to  $r = .89$ . Problem-solving skills of students with total scores obtained from three sub-scale correlations respectively - .46, - .44, - .29 and - .43. Construct validity is problem solving skill consists of confidence ( $\alpha = .85$ ), avoidance ( $\alpha = .84$ ) and personal control ( $\alpha = .72$ ).The correlation coefficients between these three factors varied between .38 and .49 (Savaşır and Şahin, 1997).

Family Environment Questionnaire, Evaluating Communication Skills Scale and Problem Solving Inventory were applied voluntary students by researchers in the classroom as groups. The SPSS 15.0 package was used in the analysis of data. t test for independent groups and simple linear regression analysis were employed to analyze the data.

## RESULTS

In the study, first examining whether family environment, communication skill and problem solving skill scores significantly different according to students' attending department, later on examining whether family environment sub-dimensions and communication skill scores predicting problem solving scores was examined. The results are given below.

**Table 1.** *Descriptive statistics for Family Environment, Communication Skills, and Problem Solving*

Variable		N	$\bar{X}$	SD
Family Environment	Family Unity	330	44.0515	6.85
Sub-Dimension	Family Control	330	27.5091	4.69
Communication Skills	Communication Skills Total	317	77.8991	11.90
Problem Solving Sub-Dimension	Hasty Approach	318	31.0535	6.95
	Thinking Approach	318	13.2987	4.97
	Avoidant Approach	318	11.9654	4.53
	Estimator Approach	318	7.7799	3.23
	Self confident Approach	318	16.1321	5.38
	Planned Approach	318	10.7138	4.03
	Problem Solving Total	318	90.9434	18.94

Arithmetic average of family unity points on family environment scale is 44.05. Arithmetic average of family control points on family environment scale is 27.50. Arithmetic average of total points on communication skills scale is 77.89. Arithmetic average of total points on problem solving skills scale is 18.94. Students volunteered in this research have been found to have a high family unity, communication skills and problem solving skills. Students volunteered in this research have been found to have a low family control.

**Table 2.** *The Results of t-Test According to Students' Attending Department on Family Environment and Communication Skill*

Dependet Variables	Department	N	$\bar{X}$	SD	df	t
Family Unity	Technical	220	44.59	7.11	32	2.123 *
	Health services	110	42.97	6.21	8	
Communication skill	Technical	207	76.77	12.8	31	- 2.555 *
	Health services.	110	80.03	6	5	
				9.55		

\* $p < .05$

Students' points on family unity [ $t = 2.123$ ,  $p < .05$ ] and communication skills [ $t = -2.55$ ,  $p < .05$ ] scales have significant distinctions according to attending department. According to this, Technical High School students' points on family unity and communication skills scales are higher than that of Health Services High School students.



**Table 3.** The Results of t-Test According to Students' Attending Department on Problem Solving

Dependent Variable	Department	N	$\bar{X}$	SD	df	t
Hasty Approach	Technical	208	32.8029	6.49	218.262	6.520**
	Health services	110	27.7455	6.62		
Thinking Approach	Technical	208	13.9663	5.06	242.063	3.444**
	Health services	110	12.0364	4.58		
Avoidant Approach	Technical	208	12.8125	4.65	260.234	5.008**
	Health services	110	10.3636	3.85		
Estimator Approach	Technical	208	8.2596	3.39	267.732	3.970**
	Health services	110	6.8727	2.71		
Self confident Approach	Technical	208	16.7019	5.32	220.205	2.611**
	Health services	110	15.0545	5.37		
Planned Approach	Technical	208	11.1202	4.24	260.465	2.638**
	Health services	110	9.9455	3.51		

\*\*  $p < .01$ , \*  $p < .05$

Higher scores indicate that inadequate of problem solving. For this reason, low scores indicate competence of problem solving. When Table 2 is examined, students' points on hasty [ $t = 6.520$ ,  $p < .01$ ], thinking [ $t = 3.444$ ,  $p < .01$ ], avoidant [ $t = 5.008$ ,  $p < .01$ ], estimator [ $t = 3.970$ ,  $p < .01$ ], self confident [ $t = 2.611$ ,  $p < .01$ ] and planned [ $t = 2.638$ ,  $p < .01$ ] approaches scores have significant distinctions according to attending department. According to this, Health Services High School students' on problem solving are sufficient than that Teknical High School of students.

**Table 4.** Summary Statistics for Family Unity Predicting Problem Solving

	R	R <sup>2</sup>	F	Problem Solving	S.Coefficients Beta	t
Family Unity	.204	.042	13.611	Self confident A.	-.204	-3.689**
				Planned A	-.163	-2.927**

\*\*  $p < .01$ , \*  $p < .05$

Result indicate that family unity points have predicted significantly to students' self confident ( $R = .204$ ,  $R^2 = .042$ ,  $F$  (sd 1) = 13.611,  $p < .01$ ) and planned approaches ( $R = .163$ ,  $R^2 = .024$ ,  $F$  (sd 1) = 8.565,  $p < .01$ ). Family unity points were explain account for 4.2 % of total variance in self confident approach and account for 2.4 % of total variance in planned approach. According to standardized regression coefficient, family unity points are negatively predictive confident approach ( $t = -3.689$ ;  $\beta = -.204$   $p < .01$ ) and planned approach ( $t = -2.927$ ;  $\beta = -.163$   $p < .01$ ).

**Table 5.** Summary Statistics for Communication Skills Predicting Problem Solving

	R	R <sup>2</sup>	F	Problem Solving	S.Coefficients Beta	t
Communication Skills	.127	.016	4.908	Hasty Approach	-.127	-2.215*
	.345	.119	40.574	Thinking Approach	-.345	-6.370**
	.323	.104	33.996	Avoidant Approach	-.323	-5.916**
	.253	.064	20.553	Estimator Approach	-.253	-4.434**
	.316	.120	40.996	Self confident Approach	-.346	-6.403**
	.375	.141	49.295	Planned Approach	-.375	-7.021**

\*\*  $p < .01$ , \*  $p < .05$

Result indicate that communication skills points have predicted significantly to students' hasty ( $R=.127$ ,  $R^2=.016$ ,  $F$  (sd 1)=4.908,  $p<.05$ ), thinking ( $R=.345$ ,  $R^2=.119$ ,  $F$  (sd 1)=40.574,  $p<.01$ ), avoidant ( $R=.323$ ,  $R^2=.104$ ,  $F$  (sd 1)=33.996,  $p<.01$ ), estimator ( $R=.253$ ,  $R^2=.064$ ,  $F$  (sd 1)=20.553,  $p<.01$ ), self confident ( $R=.316$ ,  $R^2=.120$ ,  $F$  (sd 1)=40.996,  $p<.01$ ), and planned ( $R=.375$ ,  $R^2=.120$ ,  $F$  (sd 1)=49.295,  $p<.01$ ) approaches. Communication skills points were explain account for 1.6 % of total variance in hasty, account for 11.9 % of total variance in thinking, account for 10.4 % of total variance in avoidant, and account for 6.4 % of total variance in estimator, account for 12.0 % of total variance in self confident and account for 14.1 % of total variance in planned approaches. According to standardized regression coefficient, Communication skills points are negatively predictive hasty approach ( $t=-2.215$ ;  $\beta= -.127$   $p<.05$ ), thinking approach ( $t=-6.370$ ;  $\beta= -.345$   $p<.01$ ), avoidant approach ( $t=-5.916$ ;  $\beta= -.323$   $p<.01$ ), estimator approach ( $t=-4.434$ ;  $\beta= -.253$   $p<.01$ ), self confident approach ( $t=-3.689$ ;  $\beta= -.204$   $p<.01$ ) and planned approach ( $t= -2.927$ ;  $\beta= -.163$   $p<.01$ ).

## DISCUSSION

In the study, students' family unity average scores were differing significantly according to they are attending program. Attending to technical program students' family unity scores are higher than health services students' score. Family is an important factor affecting the individual's personality. In family, such as parents' personality structure, family structure, educational status, occupation, health status, socio-economic and cultural conditions, rearing styles, parental discipline, they are together or separately, the relationship of domestic factors are effect of their way of approach of their children and individual's self-perception (Küçükkaragöz and Harmanlı, 2002). Accordingly, the factors affecting family relationships may lead to changes in students' perceptions of the family at health services and technical program.

In the study, students' communication skills average scores were differing significantly according to they are attending program. Attending to healthy services students' communication skill scored higher than attending to technical program students' score. The more increasing adolescence the more increasing conflict in life and individual isolated him self from family environment. Adolescence is a period of rapid and comprehensive of change. During this period, adolescent is live significant changes both physically and mentally (Tümekaya, Çelik, and Aybek, 2010). In this period, regardless of family structure, adolescent are negatively and pozivitely affected by academic needs, peers, significant life events (Suldo et al. 2009). Students who attending healthy services, lived conflicts in family may cause to move away from family, adolescent may be directed to peer interaction and communication to solve conflicts may have in this caused may increased adolescet's communication skills.

In the study, students' problem solving average scores were differing significantly according to they are attending program. In addition, health service program students' sub-dimensions of problem solving scores is lower than technical program students' scores. Sub-dimensions of problem solving and total of problem solving score to get a low score indicates that individuals' adequate to there sub-dimension

of problem solving to solve problems. Accordingly, health services students is sufficient than technical program students. Problem solving skills are seen as a variable in an individual and is expressed to based on the shape with individual's beliefs and expectations about their own problem-solving (Heppner, Witty and Dixon, 2004). Approach to the problem of individuals, problem-solving style of individuals and skills of individuals are different. Individuals' have preliminaries, use of mental processes and perceptions of themselves in solved of problem is important factor in problem solving. Therefore, technical program students and health service students' problem-solving style, skills and approaches can be differentiated.

It was found that family unity subdimensions of family environment predicted self confident approach and planned approach of problem solving as negatively significant. In other words, family unity high score individuals more is use and adopt to self-confident approach and planned approach of problem solving. Family unity can be defined as family members emotional commitment each other. Adults' could be positive model in family environment, an empathic understanding of the mutual help of family members who work to understand each other better to develop a lasting and healthy human relationships be able to increase the confidence of the individual's personal development and personal (Byrne, Davenport and Masanov, 2007). Family environment can have an impact on problem solving. Family environment or contact with diverse cultural centers promotes creative thinking, whereas time constraints, competition, and external evaluation during problem solving tend to have negative effects (Davidson and Sternberg, 2003). Close parent/adolescent relationships, good parenting skills, shared family activities and positive parent role modeling all have well-documented effects on adolescent health and development. Close relationships, healthy open communication, and perceived parental support are especially important during adolescence, as children experience many physical and emotional changes (Aufseeser, Jekielek, and Brown, 2006). Family unity assists parents in generating action plans that have a reasonable probability of solving the problem at hand (Foran, et.al, 2013). Due to family unity environment growing individuals sufficiently saturated the needs of with love and confidence, in the future against threatening elements is not losing own confidence and can apply to take the decision to free for threatening elements (Öztürk-Can, et.al, 1992). Individual of family unity high may be adopted and developed to self-confident approach and planned approach of problem solving for families to value each other, to give the opportunity to express their mutual feelings and thoughts. Basmacı-Kılıç (1998) found that a positive relation problem solving and families' democratic attitude of university students', but no relation problem solving and authoritarian attitude.

It was found that communication skills predicted self hasty approach, thinking approach, avoidant approach, estimator approach, confident approach and planned approach of problem solving as negatively significant. So, individuals the more increase communication skills the more increased perceptions of problem-solving skills. Effective communication happens when the message that is sent is the same message that is received. The mutual understanding of needs and figuring out the

message by both sender and recipient contributes to communication. Good communication and listening skills, and has built strong relationships with his or her colleagues and families, problem solving is a much easier job. When looking for solutions, it is important to keep in mind the knowledge and resources that are available, and to consult with others on possible solutions. Appropriate problem solving is achieved by effective communication. Individuals who are successful in their communication skills to be aware of their problem-solving skills, insightful, thoughtful, less anxious, more cautious, highly when compared with those who are not successful in their communication skills themselves to be unsuccessful problem solvers, perceptive, and better in social relationships (Bilen, 2004; Çam and Akkoyun, 2001; Erözkan, 2013). Studies indicated that individuals' with positive communication skills have problem solving skills and social interaction skills and positive communication skills have important role for maintain a positive relationship and establishing relationships (Çam, 1997; Korkut, 1996). Analyzing the relevant literature seen that the research findings are consistent with the findings of the literature. Çam (1997) found that development of communication skills program positive effected to perceptions of problem solving skills of teacher candidates. Bozkurt, Serin and Erman (2003) found that significant negative relation problem solving and communication skills of primary school teachers. Koç, Kılıç and Gül (2015) found that significant positive relation problem solving and communication skills of university students. Dündar (2009) found that social relationships consisting of family relationships and social cohesion predicted of problem-solving skills in university students.

## RECOMMENDATIONS

The study can be done different programs of vocational high school and research can be done on more extensive sample. Communication skills and family environment is effective on problem solving. Therefore, can be examined to communication skills and family unity training is given impact on problem-solving skills. Family environment, communication and problem solving skills curriculum can be expanded in vocational schools. Health services students' family unity score is lower than score technical program students'. Therefore, can be examined affecting factors for family unity scores in health services students'. Technical program students' communication skill score lower than attending to healthy services students'. Therefore, can be examined affecting factors for communication scores in technical program students'. Healthy services students' problem solving score lower than technical program students'. Therefore, can be examined affecting factors for problem solving skill scores in technical program students'.

## REFERENCES

- Aufseeser, D., Jekielek, S., & Brown, B. (2006). The family environment and adolescent well-being: Exposure to positive and negative family influences. *From child trends and the National Adolescent Health information center, USA.*
- Aydın, B.; Öztütüncü, F. (2001). Examination of adolescents' negative thoughts, depressive mood, and family environment. *Adolescence, 36, 141-151.*

- Basmacı- Kılıç, S. (1998). Üniversite öğrencilerinin problem çözme becerilerini algılamalarının bazı değişkenler açısından incelenmesi (Yüksek lisans tezi, İnönü Üniversitesi, Sosyal Bilimler Enstitüsü, Malatya) <https://tez.yok.gov.tr/> UlusalTezMerkezi adresinden edinilmiştir.
- Belter, J. (2008). *What happens Monday? The impact group initiatives have on self-upp raised problem-solving ability*. Clemson University Ph.D. Dissertation & Theses.
- Bilen, M. (2004). *İletişim. Sağlıklı insan ilişkileri*, Ankara: Armoni LTD. TI.
- Bozkurt, N., Serin, O.; Erman, B.(2003). İlköğretim Birinci Kademe Öğretmenlerinin, İletişim Becerileri, Problem Çözme ve Denetim Odağı Düzeylerinin Karşılaştırılmalı Olarak İncelenmesi. *XII. Eğitim Bilimleri Kongresi, Gazi Üniversitesi Eğitim Bilimleri Enstitüsü 2003, 2: 2373-1393. 15-18 Ekim, Antalya, Türkiye.*
- Byrne, D.G., Davenport, C., & Mazanov, J. (2007). Profiles of Adolescent Stress: The Development of the Adolescent Stress Questionnaire. *Journal of Adolescence, 5 (30), 393-16.*
- Cüceloğlu; D.(1999). *Yeniden İnsan İnsana*. İstanbul. Remzi Kitabevi
- Çam, S. (1997). İletişim becerileri eğitimi programının öğretmen adaylarının ego durumlarına ve problem çözme becerisi algılarına etkisi (Yüksek lisans tezi, Ankara Üniversitesi, Sosyal Bilimler Enstitüsü, Ankara) <https://tez.yok.gov.tr/> UlusalTezMerkezi adresinden edinilmiştir.
- Çam, S.; Akkoyun, F. (2001). The effects of communication skills training on ego states and problem solving. *Transactional Analysis Journal, 3, 161-165.*
- Çetinkaya, Ö.; Alparslan, A.M. (1991). Duygusal Zekânın İletişim Becerileri Üzerine Etkisi. Üniversite Öğrencileri Üzerine Bir Araştırma. *Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 16 (1), 363-377.*
- Clark, C. (2002). Problem Solving and Personality Factors of Two At-Risk Collage Populations, Department of Counseling, Rehabilitation Counseling, and Counseling Psychology, (Unpublished Doctoral Theses, West Virginia University, Virginia)
- Davidson, J. E., & Sternberg, R. J. (2003). *The psychology of problem solving*, USA: Cambridge University Press
- Dündar, S. (2009). Üniversite Öğrencilerinin Kişilik Özellikleri ile Problem Çözme Becerileri Arasındaki İlişkinin İncelenmesi. *Dokuz Eylül Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 24(2), 139-150*
- Erözkan, A. (2013). The effect of communication skills and interpersonal problem solving skills on social self-efficacy. *Educational Sciences: Theory & Practice, 13(2) 739-745*
- Farber, E., & Hertzog, M. (2002). *Annual Progress in Child Psychiatry and Child Development*. Taylor & Francis Group, New York.

- Foran, H. M., Beach, S. R.H., Slep, A. S., Heyman, R.E., & Wamboldt, M. Z. (2013). *Family Problems and Family Violence*, New-York: Springer Publishing Company
- Fowler, P. (1982). Factor structure of the family environment scale: effects of social desirability. *Journal of Clinical Psychology*, 38, 285-292.
- Günaydın, S. (2008). *Ortaöğretim kurumları öğrencilerinin saldırganlık düzeylerinin aile ortamı ve benlik imgesi ile ilişkisi (Trabzon ili örneği)*, (Yüksek lisans tezi, Karadeniz Teknik Üniversitesi, Sosyal Bilimler Enstitüsü, Trabzon) <https://tez.yok.gov.tr/> UlusalTezMerkezi adresinden edinilmiştir.
- Heppner, P., & Petersen, C. (1982). The development and implications of a personal problem-solving inventory. *Journal of Counseling Psychology*, 29 (1), 66-75.
- Heppner, P. P., & Krauskopf, C. J. (1987). An information-processing approach to personal problem solving. *The Counseling Psychologist*, 15, 371-447.
- Heppner, P., Witty, T., & Dixon, W. (2004). Problem Solving Appraisal Helping Normal People Lead Better Lives. *The Counseling Psychologist*, 32, 439-449
- Heppner, P., & Krouskopf, J. (1987). An information-processing approach to personal problem solving. *The Counseling Psychologist*, 15, 371-447.
- Karataş- Bolat, Z. (2002). Anne baba saldırganlığı ile lise öğrencilerinin saldırganlığı arasındaki ilişkinin incelenmesi (Yüksek lisans tezi, Çukurova Üniversitesi, Sosyal Bilimler Enstitüsü, Adana) <https://tez.yok.gov.tr/> UlusalTezMerkezi adresinden edinilmiştir.
- Koç, B. Kılıç, Y.; Gül, A. (2015). Üniversite öğrencilerinin iletişim becerileri ile kişilerarası problem çözme becerileri arasındaki ilişki. *Uluslararası Türkçe Edebiyat Kültür Eğitim Dergisi*, 4 (1) , 369-390.
- Korkut, F. (1996). İletişim Becerileri Eğitiminin Lise Öğrencilerinin İletişim Becerilerini Değerlendirmelerine Etkisi. *3P (Psikiyatri, Psikoloji ve Psikofarmakoloji)*, 5(4), 191-198.
- Korkut, F. (1997). Üniversite Öğrencilerinin İletişim Becerilerinin Değerlendirilmesi. *IV. Ulusal Eğitim Bilimleri Kongresi Bildirileri Kitabı*, Anadolu Üniversitesi, Eskişehir, Türkiye, 208-218.
- Küçükkaragöz, H.; Harmanlı, Z. (2002). Ergenlerde Aile Ortamı, Aileyi Değerlendirme ve Benlik Kavramı." *XII. Ulusal Psikoloji Kongresi*, 9-13 Eylül, Orta Doğu Teknik Üniversitesi, Ankara.
- Öztaş, N. (1994). Kişilerarası İlişkiler Ölçeği. *VIII. Ulusal Psikoloji Bilimsel Çalışmaları*. Ankara: : Türk Psikologlar Derneği, 57-67.
- Öztürk- Can, H., Öner, Ö.İ. ve Çelebi, E. (2004). Üniversite Öğrencilerinde Eğitimin Sorun Çözme Becerisine Etkisinin İncelenmesi. *Fırat Sağlık Hizmetleri Dergisi*, 4 (10), 36-57.
- Savaşır, I.; N. H. Şahin (Ed.). (1997). *Bilişsel-Davranışçı Terapilerde Değerlendirme: Sık Kullanılan Ölçekler*. Ankara: Türk Psikologlar Derneği



- Sillars, A. (1995). *Communication and Family Culture*, In M. A. Fitzpatrick & A. L. Vangelisti (Eds.), *Perspectives on family communication*, 375- 399.
- Şahin, N., Şahin, N., & Heppner, P. (1993). *Psychometric* properties of the problem solving inventory in a group of turkish university students. *Cognitive Therapy and Research*, 17(4), 379-396.
- Tümekaya, S.; Çelik, M., Aybek, B. (2010). Ergenlerin Kişilerarası İlişkilerini Etkileyen Sosyal Yaşantı Değişkenlerinin İncelenmesi. *Muğla Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 24, 163-178.
- Usluer, S. (1989). The Reliability and the Validity of the Family Environment Questionnaire (Aile Ortamı Ölçeğinin Geçerlilik ve Güvenirlik Çalışması), Boğaziçi Üniversitesi, Sosyal Bilimler Enstitüsü, İstanbul, Türkiye (Yüksek lisans tezi, Boğaziçi Üniversitesi, Sosyal Bilimler Enstitüsü, İstanbul)
- Varvel, S. J.(2009). Gender role conflict, problem-solving appraisal, and the psychological functioning of firefighters (Unpublished Doctoral Thesis, The Faculty of the Graduate School University of Missouri, USA). <https://mospace.umsystem.edu/xmlui/bitstream/handle/10355/9683/research.pdf?sequence=3>
- Wiltfang, G., & Scarbecz, M.(1990). Social Class and Adolescents' Self-Esteem: Another Look. *Social Psychology Quarterly*, 53, 174-183.

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