

# Examination of career-related stress in senior students of health sciences departments

## Sağlık bölümü son sınıf öğrencilerinin kariyer ile ilgili stres kaynaklarının incelenmesi

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### ABSTRACT

**Introduction:** University students encounter many stressors related to academic issues, financial concerns, social relations, and career planning during university years, however, among all these, students reported career-related issues at the top. **Aim:** The study aims to examine the career-related stress of undergraduate students in health sciences departments. **Materials and Methods:** This cross-sectional study was conducted with 332 senior students in a private university in Istanbul between February-March 2020. Data were collected using the Personal Information Form and the Career Stress Inventory. **Results:** 84.0% of them were from the Health Sciences Faculty 81.0% of the students willingly chose their department, and 57.8% wanted to work actively in the same field after graduation. While planning their professions, 51.2% were motivated by successful nurse leaders and/or nurse academicians with the title of professor in their field, 48.5% selected and their career choices based on their wishes and interests. The students' Career Stress Inventory mean score was  $46.5 \pm 17.7$ . **Conclusion:** Students pursuing a career in health sciences are stressed about their careers. Furthermore, it was discovered that there was such a significant difference according to socioeconomic status, choosing the profession themselves, and not having career counseling from the career center.

### ÖZ

**Giriş:** Üniversite öğrencileri, üniversite yıllarında akademik konular, finansal kaygılar, sosyal ilişkiler ve kariyer planlama ile ilgili pek çok stresörle karşılaşmaktadır. Ancak tüm bunlar arasında öğrenciler en yüksek düzeyde kariyerle ilgili sorunları bildirmektedir. **Amaç:** Bu araştırma sağlık bölümlerinde öğrenim gören son sınıf lisans öğrencilerinin kariyerle ilgili streslerini incelemeyi amaçlamaktadır. **Gereç ve Yöntem:** Bu kesitsel araştırma, Şubat-Mart 2020 tarihleri arasında İstanbul'da özel bir üniversitede okuyan 332 son sınıf öğrencisi ile gerçekleştirildi. Veriler, Kişisel Bilgi Formu ve Kariyer Stresi Ölçeği kullanılarak toplandı. **Bulgular:** Öğrencilerin %84,0'ı Sağlık Bilimleri Fakültesi'ndendi. Öğrencilerin %81,0'ı bölümünü isteyerek seçtiği ve %57,8'i mezun olduktan sonra aynı alanda aktif olarak çalışmak istediği belirlendi. Mesleklerini planlarken %51,2'si alanında başarılı hemşire liderleri ve/veya profesör unvanına sahip hemşire akademisyenleri örnek aldıkları, %48,5'i istek ve ilgi alanlarına göre seçtikleri ve kariyer seçimleri yapıldığı tespit edildi. Öğrencilerin Kariyer Stres Ölçeği puan ortalaması  $46,5 \pm 17,7$ 'dir. **Sonuç:** Sağlık bilimleri alanında eğitim alan öğrenciler kariyerleri ile ilgili stres yaşamaktadırlar. Öğrencilerin sosyoekonomik duruma, mesleğini kendisinin seçmesine ve kariyer merkezinden kariyer danışmanlığı almaması durumuna göre anlamlı bir farklılık olduğu belirlendi.

**Key Words:**  
Career Stress; Students; Health Sciences.

**Anahtar Kelimeler:**  
Kariyer Stresi; Öğrenciler; Sağlık Bilimleri.

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### INTRODUCTION

Stress is an emotional state that creates physical and emotional reactions because of uncertainties and demands. It is exposed at every stage of daily life and is regarded as the disease of the future (Yılmaz Karabulutlu et al., 2019). Interactions with the external environment and the person's inner world can cause stress. It is also a sign of a significant lack of harmony between the individual and their surroundings. Hans Selye explained the term for the first time and emphasized

its connection with diseases via "General Adaptation Syndrome" to describe how stress destroys living cells and accelerates aging. In addition, according to Selye, it is not possible to completely remove stress from life, nor is it realistic. Selye, who considers stress under two headings, defines the positive reaction to a situation as eustress (constructive stress) and the negative reaction as distress (pathogenic stress). Starting to work as a result of feeling stressed about university exams can be an example of eustress, and a decrease in the productivity of studying due to an excessively high-stress level can

be an example of distress (Ogden, 2007; Gibbons et al., 2011). Throughout their lives, between family, school, work, and the social environment, students are faced with stressors created by these factors (Aschbacher et al., 2013).

The concept of a career, which has a very old history, started to be discussed, and its meaning started to be emphasized, in the 1970s. A career is the set of attitudes and behaviors that an individual perceives about his/her work-related experiences and activities throughout his/her life (Eryılmaz & Mutlu, 2017). In this definition, a career includes both attitudes and behaviors and subsequent actions related to the profession. A career is one of the most important choices in life. It develops around work and occupation and provides people with purpose, motivation, self-efficacy, and income.

Individuals who receive a university education aim for success in academic and social life, make plans for the future, and ultimately aim to achieve happiness. This process is not easy to manage. It covers both theoretical knowledge and daily life skills. For this reason, it is predicted that university students who face many distractions in their daily lives and do not have sufficient professional qualifications nevertheless have high levels of stress related to the process after graduation. Being clear about the expectations about career planning and determining the responsibilities the students will take in their future professional lives are especially related to their interests and abilities. A person's desire to direct their life in line with their interests and abilities is the first stage of successful career planning (Eryılmaz & Mutlu, 2017; Günay & Çelik, 2019).

The last semesters of the university are the times when the most emphasis is placed on careers and career planning (Günay & Çelik, 2019). Students have the freedom to choose the profession they want and can be successful in and choosing the career they want in the coming years is one of the important turning points that will guide their lives in the globalized world. Senior university students, who are in the transition phase from student to professional life, need to gather information about their career options in line with their professions and interests, evaluate this information, and plan for the future. Career value begins to become evident in the time that passes after starting the profession. Therefore, when choosing a profession, individuals should aim to make the best career choice by comparing their abilities and values and should be responsible for making their own career choices. However, demographic characteristics, talent, personality traits, professional values, economic, psychological, and social factors affect career planning (Eryılmaz & Mutlu, 2017). These factors are, in a sense, a source of career-related stress

for the individual. Stressors and difficulties related to the career determined by the individual may be external sources such as family, environment, and media, as well as factors such as pressure to find a job after graduation, lack of information about the career he/she plans, and current uncertainties about the career opportunities of the department he/she will graduate from. Not knowing what to do after graduation is one of the reasons for anxiety, especially regarding the careers of students whose graduation is approaching (Aschbacher et al., 2013; Örücü & Kacan, 2019). In addition, students' negative experiences throughout their educational life also cause anxiety and therefore, negatively affect their career thinking, process, and future expectations. This stress experienced during career decision-making can lead to problematic interpersonal relationships, role conflict, and depression symptoms. Individuals need to plan their careers and review their career expectations before starting their professional lives. The intersection of the career management policies of the institution with the career expectations of the individual in the period after entering a job also creates stress. Therefore, it is important for the individual to know the factors affecting determining career goals and think about solutions. The individual can prevent stress, unhappiness, and pessimism by reviewing the goals he has set for himself (Aschbacher et al., 2013).

This research aims to examine the career stressors of senior students studying in the field of health sciences at a university. Thus, the study will contribute to the literature on the stressors that affect students' career choices who are approaching graduation.

### **Research Question**

What is the career stress level of the students studying in the field of health sciences and what are the factors affecting the career stress level?

## **MATERIALS AND METHODS**

### **Study Design**

The descriptive design study took place at a private university in Istanbul between February 10th and March 31st, 2020.

### **Participants**

Senior students (N: 715) enrolled in the university's health-related undergraduate programs made up the population. According to the finite (population-known) sample calculation formula, the study sample should have at least 251 students with a 0.05 error level, 0.95 confidence interval, and 0.95 ability to represent the population. The minimum number of samples to be

taken from each faculty according to the stratified sample selection was calculated as 23 in the Faculty of Dentistry, 21 in the Faculty of Pharmacy, and 207 in the Faculty of Health Sciences. However, all students in the relevant departments were invited to participate in the study, and the sample size was not limited. The study's sample consisted of 332 students who agreed to take part in the study.

### Data Collection Tools

**Personal Information Form:** This form developed by academics that contain questions on the students' sociodemographic characteristics, as well as their career choices and plans (Üzümlü et al. 2018; Altan & Tarsuslu, 2019; Bozyiğit & Gökbaraz 2020; Çetinkaya, 2019).

**Career Stress Inventory (CSI):** The aim of the Career Stress Inventory, developed by Choi et al. (2011) and adapted into Turkish by Özden and Sertel-Berk (2017), is to evaluate students' career-related stressors and difficulties. The scale consists of 20 items and is of a 5-point Likert type. It has a total of 3 sub-dimensions: Career Ambiguity and Lack of Information, External Conflict, and Employment Pressure. The scoring of the items ranges from (1) strongly disagree to (5) strongly agree. There is no reverse-scored item on the scale. A minimum of 20 points and a maximum of 100 points can be obtained. A high score indicates that the level of career stress of the individual is high. The Cronbach's Alpha Coefficient of the scale is 0.94 in the total scale. The sub-dimensions were found to be 0.94, 0.83, and 0.86, respectively (Özden & Sertel-Berk, 2017; Choi et al., 2011). In this study, the Cronbach's Alpha Coefficient was 0.94 in the total scale, the sub-dimensions were 0.93, 0.80, and 0.86 respectively.

### Data Collection

The personal information form and the scale were applied face-to-face in the classroom by the researchers. After informed consent explanation, the forms were distributed to the student at the end of an appropriate course of each department. It took about 10 minutes to fill out the forms.

### Ethical Consideration

Before conducting the study, Biruni University Ethics Committee of Non-Interventional Studies evaluated the research, and approval was obtained on February 7th, 2020 (Decision No.: 2020/37-28). The institutional approval from the university were obtained. Before data collection, the informed consent form explaining the purpose of the study and the use of personal data for scientific research was explained to the students and

their consent was obtained for the research. Permission for use of data collection tool was obtained electronically from the corresponding author. The study was conducted in line with the Declaration of Helsinki.

### Data Analysis

Data were evaluated in SPSS (Statistical Package for the Social Sciences for Windows 24.0-IBM Corp.) and were evaluated with descriptive statistical analysis (number, frequency, mean, standard deviation). The Kolmogorov-Smirnov test was used to determine the normality of the distribution of the data. The Mann-Whitney U test was used for pairwise group comparisons for data that did not show normal distribution, and the Kruskal Wallis H test was used for over two group comparisons. Significance between groups over two was evaluated by Kruskal-Wallis One-Way ANOVA Post Hoc advanced analysis. The statistical significance level was accepted as  $p < 0.05$ .

## RESULTS

The sociodemographic characteristics of the students are given in Table 1. It was determined that the mean age of the students was  $22.4 \pm 1.76$  and 78.9% of them were women. It was found that 48.8% of the participants chose the department they liked and 81% decided on this choice themselves. It was determined that 95.8% of the students did not take counseling from the career centers of the university during their studentship. In addition, it was determined that the economic status of 70.2% of the students was medium; 67.8% of their mothers, and 63% of their fathers were secondary or high school graduates. It was determined that 54.5% of the participants' families' expectations encouraged them positively (Table 1).

The answers given by the students to the questions about their post-graduation career plans are given in Table 2. Accordingly, it was determined that 57.8% of the students wanted to work actively in their field after graduation, and 51.5% had concerns about finding a job after graduation. In career planning, it was determined that 51.2% of the students took the successful people and teachers in their professions as examples, 74.1% of them received support mostly from their family members, and 48.5% of them made their career choices in line with their wishes (Table 2).

Table 3 shows the distribution of scores regarding the sub-dimensions of the scale in terms of career-related stress and difficulties of students. Accordingly, the students got  $46.5 \pm 17.7$  points from the CSI, and it was determined that they got  $22.1 \pm 9.8$  points from the career ambiguity and lack of information sub-dimension,  $7.8 \pm 3.6$  points from the external conflict sub-dimension,

**Table 1:** Sociodemographic characteristics of the student (N: 332)

Sociodemographic characteristics	n	%
<b>Sex</b>		
Female	262	78.9
Male	70	21.1
<b>Faculty</b>		
Faculty of Health Sciences*	279	84.0
Faculty of Dentistry	26	7.8
Faculty of Pharmacy	27	8.1
<b>What is your reason for choosing the department you are studying?</b>		
I wanted to receive training in the field of healthcare.	30	9.0
I chose it because of my YGS-LYS** score.	52	15.7
I love helping people.	28	8.4
It was a profession I loved and wanted.	162	48.8
I chose it at the request of my family.	18	5.4
I chose it because of the employment opportunity.	42	12.7
<b>Did you choose your department/faculty voluntarily?</b>		
Yes	269	81.0
No	42	12.7
Undecided	21	6.3
<b>What is your socioeconomic status?</b>		
Low	9	2.7
Middle	233	70.2
High	90	27.1
<b>What is the education level of the mother?</b>		
Illiterate	20	6.0
Secondary or High School	225	67.8
Vocational or Bachelor's Degree	72	21.7
Master or Doctorate Degree	15	4.5
<b>What is the education level of the father?</b>		
Illiterate	4	1.2
Secondary or High School	209	63.0
Vocational or Bachelor's Degree	89	26.8
Master or Doctorate Degree	30	9.0
<b>How does your family's expectations of you affect you?</b>		
It negatively affects my performance.	12	3.6
It put pressure and cause stress.	78	23.5
It encourages positively.	181	54.5
It does not affect me.	61	18.4
<b>Age (Mean ± SD)</b>	22.4 ±1.76	
<b>Grade Point Average (Mean ± SD - 4.0 Scale)</b>	2.7±0.3	

\*Departments under the Faculty of Health Sciences; Emergency and Disaster Management, Nutrition and Dietetics, Child Development, Language and Speech Therapy, Midwifery, Occupational Therapy, Physiotherapy and Rehabilitation, Nursing, Audiology, Health Management, Social Work.

\*\*YGS: Higher Education Exam, LYS: Undergraduate Placement Exam

**Table 2:** Characteristics of students regarding career planning (N: 332)

Characteristics related to career planning	n	%
<b>What is your goal after graduation?</b>		
I want to work actively in my field.	192	57.8
I want to get postgraduate (master/doctorate) education related to my field.	118	35.5
I'm thinking of changing the field.	8	2.4
I do not intend to work.	14	4.2
<b>Are you worried about finding a job after graduation?</b>		
Yes	171	51.5
No	99	29.8
Undecided	62	18.7
<b>Who do you take as an example when planning your career?</b>		
People in my family and relatives	79	23.8
My friends	12	3.6
Successful people/professors in my profession	170	51.2
I don't take anyone as an example.	71	21.4
<b>Who do you get the most support from when planning your career?</b>		
My family	246	74.1
My professors	35	10.5
Myself	51	15.4
<b>What influences your career choice the most?</b>		
My wishes	161	48.5
Profession's income	88	26.5
My family	37	11.1
Working conditions, employment	46	13.9
<b>Have you received counseling about your career plan from the career center of the university?</b>		
Yes	14	4.2
No	318	95.8

**Table 3:** Distribution of Career Stress Inventory Scores (N: 332)

Career Stress Inventory		X	SD	Min.	Max.	Items
Sub-dimension	Career Ambiguity and Lack of Information	22.1	9.8	10	50	10
	External Conflict	7.8	3.6	4	20	4
	Employment Pressure	16.6	6.2	6	30	6
Total		46.5	17.7	20	100	20

**Table 4:** Comparison of the mean scores of the Career Stress Inventory with the demographic characteristics of the students and their answers to the questions about career (N: 332)

Variables	Career Ambiguity and Lack of Information				Career Stress Inventory (CSI)				Total			
	Mean	SD	Test P	Mean	SD	Test P	Mean	SD	Test P	Mean	SD	Test P
<b>Sex</b>												
Female	22.2	10.0	9.114†	7.7	3.7	7.978†	16.8	6.3	8.422†	46.7	18.1	9.010†
Male	21.6	8.9	0.938	8.2	3.4	0.092	15.7	5.9	0.294	45.7	16.4	0.823
<b>Faculty</b>												
Faculty of Health Sciences*	22.3	10.1	2.769‡	7.9	3.7	0.871‡	16.8	6.2	4.288‡	47.1	18.2	3.701‡
Faculty of Dentistry	21.9	6.9	0.250	7.6	3.2	0.647	17.1	6.4	0.117	46.7	13.6	0.157
Faculty of Pharmacy	19.1	8.6		6.9	2.9		14.0	5.3		40.2	15.2	
<b>Grade Point Average (4.0 Scale)</b>												
2.00-2.99	21.8	9.3	11.772†	7.7	3.7	11.628†	16.4	6.2	11.234†	46.0	17.4	11.503†
3.00-4.00	22.6	10.6	0.745	7.9	3.6	0.613	17.0	6.2	0.325	47.6	18.5	0.513
<b>What is your socioeconomic status?</b>												
Medium	23.1	9.9	8.169†	8.1	3.7	8.666†	17.2	6.2	8.372†	48.5	18.0	8.190†
High	19.1	8.9	0.000	6.9	3.4	0.004	14.9	5.9	0.001	41.1	16.2	0.001
<b>What is the education level of the mother?</b>												
Illiterate	24.4	10.2		8.2	3.9		17.5	6.3		50.1	19.1	
Secondary or High School	21.6	9.6		7.5	3.5		16.7	6.2		45.9	17.4	
Vocational or Bachelor's Degree	23.1	10.4	2.535‡	8.5	4.0	3.224‡	16.6	6.1	2.003‡	48.3	18.7	2.408‡
Master or Doctorate Degree	20.3	8.7	0.469	7.5	3.4	0.358	14.2	6.2	0.572	42.1	17.0	0.492
<b>What is the education level of the father?</b>												
Illiterate	20.0	11.4		6.7	5.5		17.5	4.7		44.2	21.3	
Secondary or High School	21.8	9.5	3.517‡	7.8	3.6	1.953‡	16.9	6.3	4.600‡	46.5	17.3	3.501‡
Vocational or Bachelor's Degree	23.5	10.5	0.319	7.9	3.8	0.582	16.8	6.2	0.204	48.3	18.9	0.322
Master or Doctorate Degree	19.6	8.6		7.5	3.6		14.1	5.7		41.3	16.7	
<b>Did you choose your department/faculty voluntarily?</b>												
<sup>a</sup> Yes	20.6	8.9	24.745‡	7.3	3.4	17.178‡	16.2	6.1	7.248‡	44.2	16.5	20.209‡
<sup>b</sup> No	27.4	12.0	0.000	9.8	4.4	0.000	18.4	6.9	0.027	55.8	21.6	0.000
<sup>c</sup> Undecided	29.4	9.1	a<b p=0.001	9.3	3.4	a<b p=0.001	18.5	5.1	a<b p=0.034	57.2	14.8	a<b p=0.003
			a<c p=0.000			a<c p=0.030			a<c p=0.063			a<c p=0.002
			b<c p=0.834			b<c p=0.990			b<c p=0.420			b<c p=0.420

**Table 4:** (Devam) Comparison of the mean scores of the Career Stress Inventory with the demographic characteristics of the students and their answers to the questions about career (N: 332)

Variables	Career Stress Inventory (CSI)											
	Career Ambiguity and Lack of Information			External Conflict			Employment Pressure			Total		
	Mean	SD	Test p	Mean	SD	Test p	Mean	SD	Test p	Mean	SD	Test p
<b>How does your family's expectations of you affect you?</b>												
It negatively affects my performance.	17.0	6.9		6.5	3.2		16.9	7.1		40.5	15.6	
It put pressure and cause stress.	23.3	10.6	4.811# 0.186	7.7	4.0	4.949# 0.176	18.0	6.7	4.154# 0.245	49.1	19.7	3.476# 0.324
It encourages positively.	22.2	9.8		8.0	3.5		16.3	6.0		46.4	17.2	
It does not affect me.	20.9	8.9		7.4	3.6		15.7	5.8		44.1	17.0	
<b>Are you worried about finding a job after graduation?</b>												
<sup>a</sup> Yes	24.6	9.7	30.703# 0.000	8.5	3.7	18.871# 0.000	19.3	5.8	69.299# 0.000	52.5	16.9	47.828# 0.000
<sup>b</sup> No	18.2	8.4	<b>b&lt;a p=0.000</b> <b>c&lt;a p=0.027</b>	6.7	3.3	<b>b&lt;a p=0.000</b> <b>c&lt;a p=0.111</b>	13.0	5.4	<b>b&lt;a p=0.000</b> <b>c&lt;a p=0.000</b>	38.0	15.9	<b>b&lt;a p=0.000</b> <b>c&lt;a p=0.001</b>
<sup>c</sup> Undecided	21.1	9.8	<b>b&lt;c p=0.187</b>	7.5	3.7	<b>b&lt;c p=0.455</b>	14.7	4.7	<b>b&lt;c p=0.255</b>	43.4	16.7	<b>b&lt;c p=0.135</b>
<b>What influences your career choice the most?</b>												
<sup>a</sup> My wishes	22.9	10.3		7.8	3.7		17.8	6.5	10.345# 0.016	48.6	18.5	
<sup>b</sup> Profession's income	22.2	9.6	2.924# 0.403	8.1	3.7	3.996# 0.262	15.6	5.9	<b>b&lt;a p=0.019</b> <b>d&lt;a p=0.026</b>	46.0	17.2	4.983# 0.173
<sup>c</sup> My family	20.2	8.8		7.0	3.5		15.5	5.9	<b>c&lt;a p=0.026</b> <b>c&lt;b p=0.629</b> <b>d&lt;b p=0.733</b>	42.9	16.8	
<sup>d</sup> Working conditions, employment	22.1	9.8		7.8	3.6		16.6	6.2	<b>c&lt;d p=0.822</b>	46.5	17.7	
<b>Have you received counseling about your career plan from the career center of the university?</b>												
Yes	14.7	7.1	1.092† 0.001	5.6	2.1	1.398† 0.017	14.2	5.5	1.655† 0.104	34.6	13.5	1.280† 0.007
No	22.4	9.7		7.9	3.7		16.7	6.2		47.0	17.7	

† Mann-Whitney U test, #Kruskal Wallis-H test, Post-hoc comparisons: Kruskal-Wallis 1-way ANOVA, p<0.005  
The data were statistically significant (p<0.05) are bold.

and  $16.6 \pm 6.2$  points from the employment pressure sub-dimension.

The comparison of CSI means scores with variables is given in Table 5. In the study, female students' career ambiguity and lack of knowledge, employment pressure, and CSI mean scores were found to be higher than those of male students. However, no significant relationship was found between the sex of the students and the total score and sub-dimensions of the CSI ( $p > 0.05$ ) (Table 4).

In the study, it was determined that the students of the Faculty of Dentistry had a higher mean score of employment pressure, and the students of the Faculty of Health Sciences had higher mean scores of career ambiguity and lack of knowledge, external conflict sub-dimension, and CSI. On the other hand, it was determined that the students with a GPA between 3.00 and 4.00 had higher CSI total and sub-dimensions mean scores than the students with a lower GPA. However, no statistically significant relationship was found between the faculty and GPA variables and CSI total score and sub-dimensions ( $p > 0.05$ ) (Table 4).

In the study, it was found that there was a significant relationship between the mean scores of career stress levels according to the socioeconomic levels of the students, and the mean scores of the CSI and all sub-dimensions of the students with middle socioeconomic status were higher than those with high socioeconomic status ( $p < 0.005$ ) (Table 4).

In the study, it was found that the mean scores of all sub-dimensions were statistically significantly higher between the student's preference for the department in which they studied and their CSI levels ( $p < 0.005$ ). This significance arises because students who do not choose the department, they are studying in received more points than students who choose the department they are studying (Table 4).

In the study, when the effect of family expectations on students was examined, it was determined that career ambiguity and lack of knowledge, employment pressure and CSI means the scores of the students who stated that family expectations caused stress were higher than the other students, but there was no statistical significance ( $p > 0.005$ ) (Table 4).

The presence of job-finding anxiety and the CSI total and all sub-dimensions mean scores of university students after graduation were found to be statistically significantly higher ( $p < 0.005$ ). It was determined that this significance was since students who stated that they had job-finding anxiety got higher scores from the CSI and sub-dimension mean scores than students who stated that they had no job-finding anxiety (Table 4).

It was determined that there were statistically significant relationships between the factors affecting students in the process of making a career choice and the employment pressure sub-dimensions; and between the fact of receiving counseling from the career center of the university and CSI levels ( $p < 0.005$ ) (Table 4).

## DISCUSSION

In this study, career-related stressors and related factors among senior students studying in the health sciences were examined.

Considering the CSI's lowest (20) and highest (100) points of university students studying in health sciences in our study, it was concluded that they had a medium level of career stress ( $46.5 \pm 17.7$ ). Our findings are like the results of studies conducted with students enrolled in different departments/programs. In the study conducted by Bozyiğit and Gökbaraz (2020) with students of the Faculty of Sports Sciences, the total mean score obtained from the scale was  $43.84 \pm 14.92$ ; in the study conducted by Özden and Sertel-Berk (2017) the mean total score was found to be  $49.28 \pm 16.48$ . In addition, in the study conducted by Altan and Tarsuslu (2019) with students of Vocational School of Health Services the mean total score was found to be  $2.30 \pm 0.81$ , while in the Çetinkaya et al. (2019) study with students studying in physical education and sports departments, it was  $2.69 \pm 1.04$ . Also, in the study conducted by Yılmaz (2019) with university students studying in educational sciences, it was  $2.29 \pm 0.69$ .

Our findings show that some demographic characteristics may affect career stress. In the study of Yılmaz (2019), it was determined that although the female participants' employment pressure sub-dimension mean score was higher than that of male candidates, and statistically significant, career stress did not differ according to gender. In the study of Üzümlü et al. (2018) and Kan Sönmez (2021), the mean score of the CSI and its sub-dimensions, and in the study of Altan and Tarsuslu (2019), the mean score of the sub-dimension of employment pressure was higher in women than in men, and statistical significance was found. However, according to the studies of Bozyiğit & Gökbaraz and Çetinkaya et al. (2019), it was determined that although the scores of the male participants in the scale and sub-dimensions were higher than the female participants, they were quite similar and not statistically significant. In this study, although the mean scores of the sex variable and the CSI, career ambiguity and lack of information, and employment pressure sub-dimensions were higher in women, and the scores of the external conflict sub-dimension were higher in men, there was no statistical significance. The research in the literature and our

findings show that university students' sex does not affect career stress.

In the study conducted by Bozyiğit and Gökbaraz (2020) with the students of the Faculty of Sports Sciences, it was determined that the CSI total and sub-dimension mean scores of senior students were higher and there was a statistical significance in the employment pressure sub-dimension. In the same study, and among the departments under this faculty, it was determined that the CSI total and sub-dimension mean score of the Sports Management department students were higher and there was a statistical significance with the career ambiguity and lack of knowledge sub-dimension (Bozyiğit & Gökbaraz 2020). In the study conducted by Çetinkaya (2019) with students studying Sports Sciences, it was determined that, as in the study of Bozyiğit and Gökbaraz, the level of career stress increases as the grade increases and is statistically significant (Çetinkaya, 2019). In the study of Yılmaz (2019), it was determined that the CSI total and sub-dimension mean scores of first-year teacher candidates were higher and significant. In the same study, it was determined that the career ambiguity and lack of knowledge, employment pressure sub-dimensions and the CSI total mean score of the students studying in the preschool education department were higher and statistically significant (Yılmaz 2019). In the study of Altun and Tarsuslu (2019) with students from the first and emergency and medical documentation and secretarial departments, it was found that the scores obtained from the sub-dimensions of the scale were similar and not statistically significant (Altun and Tarsuslu, 2019). Due to approaching graduation, only senior students were included in this study, and student scores differ according to the faculty they are enrolled in, but there is no significant relationship between them.

The job-finding anxiety of university students after graduation is an important problem both at the global and national levels. In this problem, there may be external factors such as creating suitable employment opportunities, paying attention to employee rights, and planning the appropriate monetary compensation, regardless of profession. According to the data of a Turkish statistical institution, it is known that the unemployment rate increased as of 2015 and this rate was 11.8% in the II quarter of 2021 (TURKSTAT, 2021). In the study conducted by Korkmazer (2019) with 335 students from the Faculty of Health Sciences, it was found that the unemployment anxiety levels of the students were high. Our research was like Korkmazer's (2019) study, and it was found that the students who stated that they had job-finding anxiety had higher career stress levels.

The choices made in career planning can be affected by the students' sociodemographic characteristics and

social characteristics. Among the main factors affecting the career choices of students are the guarantee of employment, wages, the reputation of the work in society, working conditions, and career and development opportunities. These criteria may differ with individual characteristics such as the education and employment status of the parents, the profession of the parents and the expectations of the parents from their children, the sex, age and marital status of the student, socioeconomic status, and location (Kartal et al. 2019; Kartal & Alp, 2021). Particularly in the university entrance examination, the effect of the people around the candidates, together with their families, can be two important factors in the career choice of students who have completed high school education. In Kılıç's (2019) study investigating the effect of parents on career choice, it was shown that there is a family effect in career choice, and it is an important guide in this regard. In our research, it was seen that the students stated that they were affected by their own desires, the financial aspect of the profession, the wishes of the family and the working conditions in the choosing a career, and employment pressure was greater in those students who made their choice voluntarily. In addition, the mean score of the students who stated that family expectations created career stress was also significantly higher. This situation makes us think that those decisions that do not meet the expectations of the families of the students may give rise to negative consequences in the future and that the students may be hesitant to take responsibility for such consequences.

Providing counseling on career planning during university education helps students gain a more realistic perspective. However, although there are career centers in universities, it has been determined that very few students benefit from them (Sönmez et al. 2019). Karadaş et al. (2017) determined that nursing students' career adaptability and career optimism are high, their perceived knowledge about the job market is moderate, and the importance of career counseling is emphasized. In the study of Amanak et al. (2020), it was determined that midwifery students did not have enough information about their career plans (Amanak et al., 2020). In the university where this study was conducted, there is a Career Center to provide career counseling services for short and long-term career planning after graduation, and to support them in transitioning to professional life more easily. In the study, the students who receive counseling from the career center have significantly lower career ambiguity and lack of information, external conflict sub-dimensions, and total CSI scores, and students who receive counseling experience less stress about their careers. These results show the importance of career counseling to support the transition from being a student to practicing a profession, and the necessity of being supported in this regard.

## Limitations

Our research has some limitations. First, our research is not a longitudinal study; therefore, the changes in this subject during the education period of the students could not be observed. Second, the study sample consisted entirely of students studying in the health sciences at the university. These findings cannot be generalized to all health sciences students.

## CONCLUSION

The career planning stress of the students studying in the health sciences is medium, and career counseling has a beneficial impact on students and reduces their stress. Furthermore, it has been discovered that sociodemographic variables such as sex, GPA, and parental educational status have no effect on career stress levels, but that socioeconomic status and working in a field that one chooses effectively cause stress in career planning. Considering these findings, it is recommended that it be learned in which areas the students have difficulties in career planning, that individual-specific career counseling programs be developed and that more functional studies of the universities' career centers be carried out.

## REFERENCES:

- Altan, F., & Tarsuslu, S., (2019, September). Determination of career stress levels of university students. Paper presented at the meeting of 5th International Mediterranean Congress on Natural Sciences, Health Sciences and Engineering (MENSEC V), Budapest, Hungary.
- Amanak, K., Şeker, S., Çitil Canbay, F., & Esen, E. (2020). Determining postgraduate education and career preferences of midwifery students: A mixed method study. *J DU Health Sci Inst*, 10(1), 58-67. <https://doi.org/10.33631/duzcesbed.537157>
- Aschbacher, K., O'Donovan, A., Wolkowitz, O. M., Dhabhar, F. S., Su, Y., & Epel, E. (2013). Good stress, bad stress, and oxidative stress: insights from anticipatory cortisol reactivity. *Psychoneuroendocrinology*, 38(9), 1698-1708. <https://doi.org/10.1016/j.psyneuen.2013.02.004>
- Bozyiğit, E. & Gökbaraz, N. (2020). Career stress determinants of the students in Faculty of Sports Sciences. *Journal of Computer and Education Research*, 8(15), 181-200. <https://doi.org/10.18009/jcer.679874>
- Choi, B.Y., Park, H., Nam, S.K., Lee, J., Cho, D. & Lee, S.M. (2011). The development and initial psychometric evaluation of the Korean Career Stress Inventory for college students. *Career Dev Q*, 59, 559-572. <https://doi.org/10.1002/j.2161-0045.2011.tb00976.x>
- Çetinkaya, T. (2019). The analysis of academic motivation and career stress relationships of the students in Department of Physical Education and Sport. *International Education Studies*, 12(4), 24-35. <https://doi.org/10.5539/ies.v12n4p24>
- Eryılmaz, A., & Mutlu, T. (2017). Career development and mental health from the perspective of life-span development approach. *Current Approaches in Psychiatry*, 9(2), 227-249. <https://doi.org/10.18863/pgy.281802>
- Gibbons, C., Dempster, M., & Moutray, M. (2011). Stress, coping and satisfaction in nursing students. *J Adv Nurs*, 67(3), 621-632. <https://doi.org/10.1111/j.1365-2648.2010.05495.x>

- Günay, A., & Çelik, R. (2019). Predicting the career stress with psychological health and goodwise variables: examples of public relations and publicity students. *Journal of Süleyman Demirel University Institute of Social Sciences*, 2(33), 205-217.
- Kan Sönmez, N. (2021). Investigation of career stress of tourist guide candidates. *Balıkesir University The Journal of Social Sciences Institute*, 24(45), 599-622. <https://doi.org/10.31795/baunsobed.822505>
- Karadaş, A., Duran, S., & Kaynak S. (2017). Determining nursing students' opinions towards career planning. *Suleyman Demirel University the Journal of Health Science*, 8(1), 1-8. <https://doi.org/10.22312/sdusbed.224956>
- Kartal, K. S., & Alp, S. (2021). Investigation of the relationship between demographic characteristics and criteria affecting career preferences of individuals. *Dogus University Journal*, 22(2), 19-34. <https://doi.org/10.31671/doujournal.972978>
- Kartal, K. S., Ayyıldız, E., & Alp, S. (2019). Investigation of the relationship between factors of job selection and criteria of career planning/preference. *Turkish Journal of Entrepreneurship*, 3(5), 29-50.
- Kılıç Şarman, E. (2019). Meslek seçiminde ailenin etkisine yönelik bir araştırma. (Unpublished master's thesis). Maltepe University, Istanbul, Turkey.
- Korkmazer, F. (2019). Analysis of university students' perceptions of unemployment anxiety. *Business Economics and Management Research Journal*, 3(2), 141-152.
- Ogden, J. (2007). *Health Psychology: a textbook*. NY: McGraw Hill.
- Örücü, E., & Kacan, A. (2019). The effect of job satisfaction on organizational citizenship behavior: a research on the pharmacy sector. *Social Sciences Research Journal*, 2(1), 167-189.
- Özden, K., & Sertel-Berk, Ö. (2017). Reliability and validity study of Turkish version of the Korean Career Stress Inventory (KCSI). *Studies in Psychology*, 37(1), 35-51.
- Sönmez, B., Önal, M., & Yıldız, G. (2019). Determining the correlation between career values and career future of the fourth-year nursing students. *Journal of Health Science and Profession*, 6(1), 126-134. <https://doi.org/10.17681/hsp.415119>
- Turkish Statistical Institute (TURKSTAT). (2021). Labor Statistics, II. Quarter: April - June, 2021. Retrieved from <https://data.tuik.gov.tr/Bulten/Index?p=%C4%B0%C5%9Fg%C3%BCc%C3%BC-%C4%B0statistikleri-II.-%C3%87eyrek:-Nisan---Haziran,-2021-37546&dil=1>
- Üzüm, B., Uçkun, S., & Uçkun, C. G. (2018). A fenomen in the university students: Career stress. *Journal of Social And Humanities Sciences Research*, 5(24), 1641-51. <https://doi.org/10.26450/jshsr.532>
- Yılmaz Karabulutlu, E., Gündüz Oruç, F., & Bahçecioğlu Turan, G. (2019). Effect of stress experienced by students during nursing education on their development of professional self-concept. *Gümüşhane University Journal of Health Sciences*, 8(1), 10-17.
- Yılmaz, A. (2019). Investigation with Mixed research approach of career stresses of teacher candidates. *J Turk Sport Sci*, 2(1), 93-105