# **Research Paper** The Factors Affecting Nursing Students' Career Choices in Turkey: A Cross-sectional Study

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# ABSTRACT

**Background and Purpose:** Career choice, one of life's most important decisions, can affect the future income level and related lifestyle and life quality. This study aims to determine the factors affecting the career choice among Turkish nursing students.

**Materials and Methods:** This is a cross-sectional study. The participants were 2778 nursing students of state universities from seven geographical regions of Turkey who were selected by drawing lots. A sociodemographic form and the vocational choices in entering nursing scale (VCENS) were used to collect the data. Mann-Whitney U test, ANOVA, Kruskal-Wallis test, and analysis of variance were used to analyze the data.

**Results:** The mean total score of the VCENS was high (101.41±24.89). Regarding its subscales, the mean score of the congruence subscale (70.51±20.83) was higher than the mean score of the survival subscale (30.9±10.24). There were significant differences in the total score and subscales scores of the VCENS based on students' age, gender, the study university, educational year, and family income status (P<0.05). Based on the reports, 65.2% of students voluntarily chose the department of nursing, 43.2% perceived the theoretical education as sufficient, and 35.4% perceived the practical/clinical education as inadequate.

**Conclusion:** The career choices of nursing students in Turkey differ according to the region. The high mean score of students in the congruence subscale indicates that they make a conscious choice. Most of them perceive that the practical/clinical education provided by universities is inadequate. Arranging classroom sizes by increasing the number of lecturers and screening their performance can help improve the current situation.

Keywords: Career choice, Nursing students, Turkey

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# Introduction

areer choice, which is one of the most important decisions throughout life, shapes the conditions under which individuals will spend their future, which will determine their income level, lifestyle, and life quality. For this reason, it is better not to make an instant or

random career decision without considering the criteria [1]. Career choice is a dynamic process, including thinking, investigating, and observing. While considering the choices, people should prioritize them according to their personal goals. They should choose the environment in which they will work and whom they will interact with [2]. For nursing students, it is essential to consciously choose the profession and recognize, accept, and love it to carry out nursing care effectively, which is important for human and public health [3]. Considering the low number of nurses worldwide, making the right decision to be a nurse is very important for the nursing profession [4]. The density of nurses per population varies among countries. For example, in France, Switzerland, and the Scandinavian countries, the density of nurses is more than 99 per 10,000 population; in European Russia, the density of nurses is 75-99 per 10,000 population; and in Italy and Spain, the density is 50-74 per 10,000 population [5].

The nurses should consciously choose their career [6, Many studies have investigated the factors affecting nursing students' career decisions [8-10]. They have mainly focused on motivators such as family, social influences, and job expectations [9], students' expectations of a nursing degree, such as finding a job immediately after graduation [11], the reasons for choosing a nursing profession [12], stereotypes about the nursing profession [13], and the influence of gender on career choice [14]. Factors affecting nurses' career choices can be grouped into five broad themes: Internal and external, socio-demographic, socio-economic, and interpersonal factors [15]. College students may make mistakes in career selection due to familial and social influences, misinformation, and lack of guidance for the professions. This mistake can have consequences that affect their lives and result in an unhappy work life or leaving the job [16]. Enhanced quality of nursing care can be achieved by students who know and choose the profession correctly. In this way, health services to society will be provided more effectively [17]. This study aims to investigate the factors affecting the career choice of Turkish nursing students. The research questions are: Is there a difference in factors affecting the career choices

of nursing students between seven geographical regions in Turkey? Do demographic characteristics affect Turkish nursing students' career choices?

# **Materials and Methods**

#### Study design and participants

This is a descriptive cross-sectional study conducted in the nursing faculties of seven state universities in Turkey (located in seven geographical regions) in the 2019-2020 academic year. According to the 2019 data of the Turkish Council of Higher Education, there were 168 schools providing nursing education at the undergraduate level in Turkey [18]. Turkey has seven geographical regions with similar natural, human, and economic characteristics [19]. The study population consisted of nursing students studying in state universities from these seven geographical regions. The sampling was done by drawing lots. The students included in the study were those from the Department of Nursing, Faculty of Health Sciences, Gaziantep University (GAUN) in the South-eastern Anatolia Region, the Faculty of Health, Atatürk University (AU) in Eastern Anatolia Region, the Department of Nursing, Faculty of Health Sciences, Kahramanmaraş Sütçü İmam University (KSU) in Mediterranean Region, the Faculty of Health, Dokuz Eylul University (DEU) in Aegean Region, the Department of Nursing, Faculty of Health Sciences, Sakarya University (SAU) in Marmara Region, the Department of Nursing, Faculty of Health Sciences, Erciyes University (ERU) in Central Anatolia Region, and the Department of Nursing, Faculty of Health Sciences, Ondokuz Mayıs University (OMU) in Black Sea Region. There were about 6,300 undergraduate nursing students at these universities. Power analysis was used to determine the sample size by considering a test power  $(1-\beta)$  of 0.95 and effect size (d) of 0.06. The sample size was calculated as 2681. During data collection, 2778 nursing students with no communication problems and the willingness to participate in the study were included.

#### **Data collection**

A socio-demographic form, developed by the researchers based on the literature [17, 20-22] with 26 items was used to survey the students' socio-demographic characteristics (gender, age, educational year, etc.), voluntarily selecting the nursing department, and the satisfaction with the nursing department.

The vocational choices in entering nursing scale (VCENS) was also used to collect data. It was developed by Zysberg and Berry in 2005 [23]. It has been translated into Turkish by Önler and Varol Saraçoğlu in 2010 [22]. The scale has 17 items and two subscales; "congruence" and "survival". The congruence subscale includes items 1, 2, 3, 4, 5, 7, 9, 14, 15, 16, and 17. The survival subscale includes items 6, 8, 10, 11, 12, and 13. The items are scored from 0% (the factor had no effect on my career choice) to 100% (it is the most important factor for my career choice). The total score is calculated by dividing the sum of the answers by the number of items in the scale. The internal consistency is 0.77 for the congruence subscale, 0.6 for the survival subscale, and 0.79 for the overall scale [22]. In this study, the internal consistency coefficient was found to be 0.87 for the congruence subscale, 0.48 for the survival subscale, and 0.79 for the overall scale.

#### Data analysis

IBM SPSS software, version 22 was used for data analysis. Descriptive statistics, including percentage, frequency, Mean±SD, minimum, and maximum, were used to present the data. The Shapiro-Wilk test was used to investigate whether or not the data were normally distributed. ANOVA test was used to compare the means of three or more groups for the variables with normal distribution. The Mann-Whitney U test was used to compare the means of two groups for the variables without normal distribution. The Kruskal-Wallis (KW) test was used to compare the means of three or more groups for the variables without normal distribution. P<0.05 was considered as statistically significant.

#### Results

The students' mean total score of VCENS was 101.41±24.89 (out of 170). Their scores for the congruence and survival subscales were 70.51±20.83 (out of 110) and 30.9±10.24 (out of 60), respectively.

Among the participants, 58% were aged  $\leq$ 20 years, 80.4% were female, 24% were studying at the GAUN, 30.6% were first-year students, and 59.4% had a family income equal to their expenses (Table 1). A significant difference was found in the total score and subscales of VCENS regarding students' age, gender, the university, and educational year (P<0.05). According to Table 1, for income, the difference (not relationship) was not significant for the total score (P=0.12).

Also, 56.6% stated that their attitude towards the nursing profession changed positively after they started nursing education, and 57.5% stated that nursing was suited to their field of interest. When their opinions about the sufficiency of theoretical education were asked, 43.2% perceived it as sufficient. Regarding the adequacy of the practical/clinical education, 35.4% perceived it as inadequate (Table 2). Those who voluntarily chose the department of nursing had significantly higher congruence subscale score and total VCENS score. Those who reported that nursing was suited to their field of interest had significantly higher congruence and survival subscale scores. There was a significant difference in the congruence and survival subscale scores and total VCENS score regarding the attitude towards the profession after starting nursing education. There was a significant difference in the congruence and survival subscale scores and total VCENS score regarding the perception of the adequacy of the theoretical education. A statistically significant difference was in the congruence and survival subscale scores and total VCENS score regarding the perception of the adequacy of practical/clinical education (P<0.05) (Table 2).

# Discussion

In this study conducted on Turkish nursing students, it was found that the nursing career choice scale score of the students was high, and their congruence subscale score was higher than that of the survival subscale score. A significant difference was found in these scores based on the students' socio-demographic characteristics. Career choice is a decision that can be a turning point. A suitable profession and personal satisfaction can be achieved with a proper career choice. It is essential for nurses to choose the profession consciously [24, 25]. Numerous studies in Turkey and other countries have been conducted to determine the reasons for choosing the nursing profession in nursing students [1, 23, 26-30]. Some studies have been conducted to take precautions for the nurse shortage and possible problems [31, 32].

This study used a large sample size (n=2778) that can be generalized to nursing students from all parts of Turkey. The study was conducted in seven state universities from seven regions of Turkey. The mean total VCENS score of the students was 101.41±24.89 (70.51±20.83 for the congruence subscale and 30.9±10.24 for the survival subscale). In various studies conducted in Turkey, the mean score ranged from 32.46±24.68 to 54.29±14.5 for the overall scale, from 33.72±27.74 to 57.34±19.69 for the congruence subscale, and from 20.23±2.83 to 48.22±14.50 for the survival subscale [17, 26-28]. The

Characteristics			Mean±SD		
		No. (%)	VCENS		
			Congruence	Survival	Total
Age (y)	≤20	1611(58)	71.69±19.79	31.74±9.88	103.44±23.5
	≥21	1167(42)	68.89±22.09	29.74±10.62	98.62±26.46
	U statistic		878340.5	834956	856648.25
	Р		0.003	0.000	0.000
Gender	Female	2233(80.4	71.97±20.09	30.92±10.23	102.9±23.96
	Male	545(19.6	64.52±22.67	30.81±10.31	95.33±27.61
	U statistic		489005	604971	510702.5
	Р		0.000	0.000	0.000
University	GAUN	667(24)	60.33±21.94	27.95±10.39	88.28±26.64
	KSU	528(19)	65.9±21.88	29.73±10.16	95.63±27.05
	DEU	384(13.8)	74.14±17.8	32.26±9.84	107.57±19.48
	SAU	470(16.9)	80.1±16.49	32.38±9.88	112.48±19.09
	AU	205(7.4)	74.14±19.32	34.07±9.58	108.21±22.67
	OMU	185(6.7)	74.89±19.41	32.32±9.32	107.22±21.66
	ERU	339(12.2)	74.41±16.68	32.24±10.35	106.65±19.31
	F statistic		316.51	114.34	349.07
	Р		0.000	0.000	0.000
Educational year	1 <sup>st</sup> year	851(30.6)	72.79±19.01	32.97±9.71	105.76±22.15
	2 <sup>nd</sup> year	756(27.2)	70.38±20.24	30.62±9.89	101±24.02
	3 <sup>rd</sup> year	668(24)	67.75±22.51	29.77±10.74	97.52±27.42
	4 <sup>th</sup> year	502(18.2)	70.54±21.91	29.31±10.44	99.85±26.03
	F statistic		19.11	52.02	39.53
	Р		0.000	0.000	0.000
Family income status	Income less than expenses	786(28.3)	70.23±20.46	31.72±10.46	101.94±24.74
	Income equal to expenses	1651(59.4)	70.24±20.7	30.57±10.21	100.81±24.7
	Income more than expenses	341(12.3)	72.48±22.21	30.64±9.83	103.12±26.1
	F statistic		6.05	7.96	4.16
	Р		0.04	0.01	0.12

 Table 1. The nursing students' VCENS scores based on the socio-demographic factors

Characteristics		N. (0/)		Mean±SD		
		No. (%)	Congruence	Survival	Total	
Voluntarily choosing the nurs- ing department	Yes	1810(65.2)	77.95±17.48	56.61±19.43	108.64±21.38	
	No	968(34.8)	56.61±19.43	56.61±19.43	87.89±25.39	
	U statistic		358880.5	838041	463217.5	
	Ρ		0.000	0.16	0.000	
Suitability of nursing education to the field of interest	Suited	1596(57.5)	80.9±15.28	30.52±10.12	111.42±19.56	
	Not suited	338(12.2)	44.57±19.06	30.16±11.62	74.73±26.18	
	Partial	841(30.3)	61.17±16.77	31.9±9.83	93.07±22.36	
	KW statistic		1051.17	11.6	693.08	
	Ρ		0.000	0.003	0.000	
	Changed positively	1571(56.6)	76.31±17.28	31.35±9.93	107.66±20.67	
	Changed negatively	370(13.3)	53.32±21.95	29.59±11.15	82.91±28.28	
Attitude towards the profession after starting nursing education	Did not change	828(29.8)	67.11±21.56	30.62±10.37	97.72±25.86	
	F statistic		344.71	6.77	274.24	
	Р		0.000	0.02	0.000	
	Yes	1199(23.2)	75.62±18.53	31.54±9.64	107.16±21.5	
	No	533(19.1)	63.39±23.05	30.32±11.62	93.71±28.92	
Sufficiency of theoretical	Partial	919(33.2)	68.31±20.51	29.93±10.01	98.24±24.73	
education	I have no idea	125(4.5)	67.88±22.13	34.42±10.27	102.3±25.42	
	F statistic		137.586	29.79	123.64	
	Ρ		0.000	0.000	0.000	
	Yes	595(21.5)	76.42±19.56	31.06±10.22	107.48±23.01	
	No	984(35.5)	65.16±21.97	29.76±10.43	94.92±26.85	
Adequacy of practical/clinical	Moderate	744(26.9)	70.56±19.88	30.79±10.17	101.35±23.57	
education	No idea	446(16.1)	74.39±18.24	74.39±18.24	74.39±18.24	
	F statistic		123.37	35.99	124.93	
	Р		0.000	0.000	0.000	

Table 2. The profession-related characteristics of the students based on the VCENS scores

scores reported in our study were higher. When the reasons for career choice were evaluated, it was found that while congruence with the nursing profession in students was above the average, the score of those who chose it for survival needs was below average or within the limit. This finding shows that the students chose the nursing department because they found themselves compatible with the profession. The suitability of the profession was mostly reported by the students of the SAU. The SAU has a lower quota compared to the other universities included in the study. For this reason, there is an opportunity to deal with students on a one-to-one basis, which can be a factor that increases students' suitability for the profession. Students who considered the nursing profession as suitable preferred the SAU regardless of its location and not high ranking [33]. Students who made their choice due to vital reasons were mostly from the AU. The majority of students at the AU located in Erzurum City in the Eastern Anatolia Region represent the students living in the same city and those from surrounding cities. Environmental conditions and having a job guarantee are the leading factors in selecting a city to live in. Underdeveloped industrial and agricultural sectors and bad weather conditions affect people economically. Therefore, having a job guarantee after graduation may be effective in addition to living conditions [33]. Consistent with the present study, some studies showed that Turkish had higher congruence scores [3, 16, 26]. In contrast, Alkaya et al., in their study on American and Turkish students showed that American students gave priority to congruency, while Turkish students gave priority to survival needs [1]. The higher scores for the congruence subscale in our study indicate that nursing students who made conscious choices were trained. In this regard, it can be said that nurses who perform nursing care more professionally in the future are trained nurses. It is important for students to make their career choices consciously by selecting the department and major suited to their future profession after graduation.

In this study, it was found that the congruence subscale score of female students was significantly higher than that of male students. Similar results were reported by Tosunöz et al. in 2019 [17]. In some studies, the gender variable did not cause a statistically significant difference [16, 21, 26]. In the past, nursing care in Turkey was mostly provided only by women. The gender bias in the nursing profession in Turkey has been eliminated since 2007, and men have been entitled to receive nursing degrees and professions. The belief that male nurses are novices in providing nursing care may be the rea-

son for this result. It was determined that the first-year students had higher survival subscale scores than the third-year students. This suggests that the new generation in Turkey is aware of the current nursing gap and will choose a profession suitable to their survival needs. The need for nurses in the world and in Turkey increases day by day with the increase in the aged population, the emergence of novel viruses, and the occurrence of wars and disasters. Considering the annual occupancy rate for the departments in Turkish universities, there are not even vacant quotas in nursing departments in state universities [18]. Interest in the nursing profession is increasing in the public sector, especially in Turkey, due to factors such as employment and wages.

A significant difference was found in the survival subscale score based on the students' family income status, which was higher in the group having an income less than expenses. In this regard, it can be said that the children of families with low family income levels prefer the nursing profession more than those with higher income. Eskimez et al. also found a significant difference in nursing profession preference based on income status [34]. Due to the frequent economic crises, harsh living conditions, and concern for the future in Turkey, and the fact that nursing is one of the professions with the highest employment rate, young people with a lower family economic status may be more oriented towards this profession. It has been shown that the students who choose the nursing profession in Turkey come from similar socioeconomic families [1, 25, 35].

The importance of voluntary and conscious career choice is known. For this reason, in order to ensure the right career choice in England, educational programs are adapted to the demands and interests of students [36]. In our study, it was found that the nursing students who chose the profession voluntarily and those who found it suitable to their field of interest had significantly higher congruence subscale score and total VCENS score. This is consistent with the results of other studies [3, 20, 28, 37]. Nursing profession undertakes important tasks in the clinics, in the field, and at the time of disaster. For this reason, it is important to choose nursing voluntarily. Students who make voluntary decisions can contribute to the increase in the quality of nursing services and the professional development of nursing.

In our study, there was a significant difference in the VCENS score (subscale and total scores) regarding the change of attitude towards the profession after starting nursing education. In the study conducted by Lim and Muhtar in Malaysia, nursing students' career choices

were influenced by the society where they lived; the positive public perspective positively affected their career choices [38].

Approximately one-fourth of the nursing students perceived that the theoretical education was sufficient. The VCENS score (subscale and total scores) was higher among this group of nursing students. In Turkey, the number of students per nursing department was 58 in the 1996-1997 academic year, which increased to 74 in the 2015-2016 academic year [39]. Also, there were 45 students per instructor and 113 students per assistant professor in the 2017-2018 academic year [40]. In the last 20 years, the number of nursing departments in universities has also increased by 21.8 times, the total number of students has increased by 19.7 times, the number of assistant professors has increased by 8 times, and the number of instructors has increased by 8.7 times [39]. This may have affected the quality of education provided by Turkish universities.

Regarding the adequacy of the practical/clinical education, 35.4% of the students answered "no", 26.8% answered "partially", 21.4% answered "yes", and 16.1% had no idea. As can be seen, most of the students stated that they did not find the practical/clinical education adequate. This may be due to the high number of students in the nursing departments in Turkey and the inability of students to receive practical training in many institutions belonging to the Turkish Ministry of Health. A statistically significant difference was found in students' VCENS scores (subscale and total scores) based on their perception of the adequacy of the practical/clinical education.

#### Conclusion

Nursing students in Turkey have higher congruence subscale scores in the VCENS tool than in its survival subscale. Most of them perceive that the practical/clinical education provided by universities is inadequate. Arranging classroom sizes by increasing the number of lecturers and screening their performance can help improve the current situation.

Universities have a great role in the future of the nursing profession. From the early years of education, they should hold workshops on career choice for students, and the departments should develop the related programs. This study had some limitations, such as the inability to reach all universities in Turkey, the limited time of data collection, and the contamination of information (since students may influence each other).

### **Ethical Considerations**

#### Compliance with ethical guidelines

Ethical approval was obtained from the Ethics Committee of Gaziantep University, Gaziantep, Turkey (Code: 2019/407). The participants could leave the study at any time, and their information would be kept confidential and anonymous. Informed consent was obtained from the students.

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#### Authors contributions

Conceptualization, methodology, review and editing: All authors; Investigation, data interpretation, writing the original draft: Burçin Selçuk and Hatice Serap Koçak; Data collection: Burçin Selçuk; Data analysis: Hatice Serap Koçak and Zeynep Güngörmüş.

#### **Conflict of interest**

The authors declared no conflict of interest.

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