

The Effect of Prejudice and Discrimination Education Given to University Students on Gender Perception and Attitude

Üniversite Öğrencilerine Verilen Önyargı ve Ayrımcılık Eğitiminin Toplumsal Cinsiyet Algısı ve Tutumuna Etkisi

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The Effect of Prejudice and Discrimination Education Given to University Students on Gender Perception and Attitude*

Abstract

University education may influence attitudes toward gender roles. The awareness of students in the field of health services about the gender inequalities they will encounter both during the education process and in the future while providing health services will play a role in providing health services in a more effective and equitable way. In order for university students to approach men and women with an egalitarian perspective at an early age, their gender stereotypes must first decrease and their perspectives on social relations must change positively. Therefore, university education can play an important role in influencing gender perception and attitudes towards gender roles. There is no special course on prejudice and discrimination in the training programs of Vocational Schools of Health Services that train health technicians in Turkey. Based on this, this study aimed to examine the effect of the training program given to raise awareness of prejudice, stereotypes and discrimination on the gender perception and attitude of students who will provide health care in the future. For this purpose, answers were sought to the following questions: Is there a difference in students' gender perceptions of prejudice and discrimination before and after training? Are there any differences in students' gender role attitudes regarding prejudice and discrimination before and after education? Is there a relationship between gender perception and attitudes towards gender roles? As a method, a single-group the pretest-posttest semi-experimental method was used. The research was conducted with students taking the Prejudice and Discrimination course at the Vocational School of Health Services. 95 second-grade students participated in the research. The reason why sophomore students from the Disabled Care and Rehabilitation program, the Pharmacy Services program, and the Occupational Therapy Program were selected in the study is that the "Prejudice and Discrimination" course is given in the second-grade student spring semester. Descriptive Information Form, Gender Roles Attitude Scale (GRAS), and Gender Perception Scale (GPS) were used to collect data. Before the course program started, GRAS and GPS were administered to the participants as a pretest. Afterwards, a fourteen-week course period on "Prejudice and Discrimination" was carried out. At the end of the course, GRAS and GPS were administered to the participants as posttests. According to the students' descriptive characteristics, it was found that the mean age of the participants in the study was 21.6 ± 3.3 , and that 73.7% of them were female. According to the study, most students' mothers (56.9%) and fathers (38.9%) had completed elementary school. The families of 73.7% of the participants are nuclear families. The students' average number of siblings was found to be 2.8 ± 2.1 , and the majority (51.6%) of them had both brothers and sisters. The investigation discovered that 43.2% of the students lived primarily in the city center. Most students who participated in the study said that the Black Sea region was where they spent most of their lives (46.3%). The research revealed that prejudice and discrimination training provided via online distance education methods did not affect the gender perception and gender role attitudes of second-year Vocational School of Health Services students (respectively; $p = 0.890$, $p = 0.976$). However, a positive relationship was found between gender perception and attitudes towards gender roles (pretest $r = 0.825$, $p < 0,01$; posttest $r = 0,893$, $p < 0,01$). While the total scale score of women was higher than men according to GPS and GRAS scores according to sex before the training (GPS, $p = 0.002$; GRAS, $p < 0.001$), this difference was not found after the training (GPS, $p = 0.869$; GRAS, $p = 0.682$). Accordingly, the "Prejudice and Discrimination" course created a change in perception and attitude in men. Health workers have important roles and responsibilities in preventing and reducing problems arising from gender inequality. In this regard, research can be conducted on how successful practices can be implemented in improving the gender role attitudes and gender perception levels of students who will provide health care in the future. It may be effective to specifically target men in training activities aimed at improving perceptions and attitudes towards gender. Because this study has shown that men and women can be brought to equal levels in terms of perception and attitude towards gender through education. Therefore, the study is important in terms of revealing that men and women can be brought to equal levels in terms of perception and attitude towards gender through education. In line with the results obtained, comparative studies can be conducted in terms of department, curriculum and curriculum content, which are thought to be effective on gender attitudes and perceptions of university students. Multiple follow-up studies can be conducted with larger sample groups and a control group to evaluate the effectiveness of students' education. Finally, there is a need for intervention studies to be carried out during the face-to-face education process.

Keywords: Gender, Gender Perception, Gender Roles, Gender Role Attitudes, Health Associate Degree Students

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Üniversite Öğrencilerine Verilen Önyargı ve Ayrımcılık Eğitiminin Toplumsal Cinsiyet Algısı ve Tutumuna Etkisi**

Öz

Üniversite eğitimi cinsiyet rollerine yönelik tutumları etkileyebilir. Sağlık hizmetleri alanındaki öğrencilerin hem eğitim sürecinde hem de gelecekte sağlık hizmeti sunarken karşılaştıkları toplumsal cinsiyet eşitsizlikleri konusunda farkındalıkları, sağlık hizmetlerinin daha etkili ve eşitlikçi bir şekilde sunulmasında rol oynayacaktır. Üniversite öğrencilerinin erken dönemde kadın ve erkeğe eşitlikçi bir bakış açısıyla yaklaşmaları için öncelikle cinsiyete yönelik kalıp yargılarının azalması ve sosyal ilişkilere bakış açılarının olumlu yönde değişmesi gerekmektedir. Bunun için üniversite eğitimi, toplumsal cinsiyet algısı ve cinsiyet rollerine yönelik tutumları etkilemede önemli bir rol oynayabilir. Türkiye'de sağlık teknisyeni yetiştiren Sağlık Hizmetleri Meslek Yüksekokulları'nın eğitim programlarında önyargı ve ayrımcılık konusunda özel bir ders bulunmamaktadır. Buradan hareketle bu çalışmada, gelecekte sağlık hizmeti verecek öğrencilerin cinsiyet algısı ve tutumuna önyargı, kalıp yargı ve ayrımcılık konusunda farkındalık kazandırmaya yönelik verilen eğitim programının etkisinin incelenmesi amaçlanmıştır. Bu amaç doğrultusunda şu sorulara yanıt aranmıştır: Öğrencilerin önyargı ve ayrımcılık konusunda eğitim öncesi ve sonrası cinsiyet algılarında farklılık var mıdır? Öğrencilerin önyargı ve ayrımcılık konusunda eğitim öncesi ve sonrası cinsiyet rolü tutumlarında farklılık var mıdır? Cinsiyet algısı ile cinsiyet rollerine yönelik tutumlar arasında bir ilişki var mıdır? Yöntem olarak, tek gruplu ön test-son test yarı deneysel yöntem kullanılmıştır. Araştırma, Sağlık Hizmetleri Meslek Yüksekokulu'nda Önyargı ve Ayrımcılık dersini alan öğrencilerle gerçekleştirilmiştir. Araştırmaya 95 ikinci sınıf önlisans öğrencisi katılmıştır. Araştırmada Engelli Bakımı ve Rehabilitasyon programı, Eczacılık Hizmetleri programı ve Ergoterapi Programı ikinci sınıf öğrencilerinin seçilmesinin nedeni, ikinci sınıf bahar döneminde "Önyargı ve Ayrımcılık" dersinin verilmesidir. Verilerin toplanmasında Tanımlayıcı Bilgi Formu, Cinsiyet Rollerini Tutum Ölçeği (TCRTÖ) ve Cinsiyet Algısı Ölçeği (TCAÖ) kullanılmıştır. Eğitim programı başlamadan önce katılımcılara ön test olarak TCAÖ ve TCRTÖ uygulandı. Ardından "Önyargı ve Ayrımcılık" konulu 14 haftalık kurs süreci gerçekleştirildi. Kurs sonunda katılımcılara son test olarak TCAÖ ve TCRTÖ uygulanmıştır. Öğrencilerin tanımlayıcı özelliklerine göre araştırmaya katılanların yaş ortalamasının 21,6±3,3 olduğu ve %73,7'sinin kadın olduğu belirlendi. Araştırmaya göre öğrencilerin çoğunluğunun anneleri (%56,9) ve babaları (%38,9) ilkökul mezundur. Öğrencilerin ortalama kardeş sayısının 2,8±2,1 olduğu ve çoğunluğunun (%51,6) hem erkek hem de kız kardeşe sahip olduğu ve çoğunun (%73,7) çekirdek aileye sahip olduğu belirlendi. Araştırmada öğrencilerin %43,2'sinin ağırlıklı olarak şehir merkezinde yaşadığı ortaya çıktı. Araştırmaya katılan öğrencilerin çoğu, hayatlarının çoğunu (%46,3) geçirdikleri bölge ise Karadeniz bölgesidir. Araştırma, çevrimiçi uzaktan eğitim yöntemleriyle verilen önyargı ve ayrımcılık eğitiminin, Sağlık Hizmetleri Meslek Yüksekokulu ikinci sınıf öğrencilerinin cinsiyet algısı ve cinsiyet rolü tutumlarında bir fark yaratmadığını ortaya koydu (sırasıyla; $p = 0,890$, $p = 0,976$). Ancak cinsiyet algısı ile cinsiyet rollerine yönelik tutum arasında pozitif yönde anlamlı bir ilişki bulunmuştur (ön test $r = 0,825$, $p < 0,01$; son test $r = 0,893$, $p < 0,01$). Eğitim öncesi cinsiyete göre TCAÖ ve TCRTÖ skorlarına göre kadınların, erkeklere göre toplam ölçek puanı daha yüksekken (TCAÖ, $p = 0,002$; TCRTÖ, $p < 0,001$), eğitim sonrasında bu fark bulunmamıştır (TCAÖ, $p = 0,869$; TCRTÖ, $p = 0,682$). Buna göre "Önyargı ve Ayrımcılık" dersi erkeklerde algı ve tutum değişikliği yaratmıştır. Sağlık çalışanlar toplumsal cinsiyet eşitsizliğinden kaynaklanan sorunların önlenmesi ve azaltılması konusunda önemli rol ve sorumluluklar düşmektedir. Bu doğrultuda gelecekte sağlık hizmeti verecek öğrencilerin toplumsal cinsiyet rolleri tutumlarının ve toplumsal cinsiyet algı düzeylerinin geliştirilmesinde başarılı uygulamaların nasıl hayata geçirilebileceği konusunda araştırmalar yapılabilir. Toplumsal cinsiyete yönelik algı ve tutumun geliştirilmesine yönelik eğitim faaliyetlerinde özellikle erkeklerin hedef alınması etkili olabilir. Çünkü bu çalışma eğitimle, cinsiyete yönelik algı ve tutum konusunda erkeklerle kadınların eşit düzeye getirilebileceğini göstermiştir. Dolayısıyla çalışma, eğitim yoluyla kadın ve erkeğin cinsiyete yönelik algı ve tutum açısından eşit düzeye getirilebileceğini ortaya koyması açısından önem taşımaktadır. Elde edilen sonuçlar doğrultusunda üniversite öğrencilerinin cinsiyet tutum ve algıları üzerinde etkili olduğu düşünülen bölüm, müfredat ve müfredat içeriği açısından karşılaştırmalı çalışmalar yapılabilir. Öğrencilerin eğitiminin etkililiğini değerlendirmek için daha büyük örneklem grupları ve kontrol grubuyla çoklu takip çalışmaları yapılabilir. Son olarak yüz yüze eğitim sürecinde yapılacak müdahale çalışmalarına ihtiyaç vardır.

Anahtar Kelimeler: Toplumsal Cinsiyet, Toplumsal Cinsiyet Algısı, Toplumsal Cinsiyet Rollerini Tutumu, Cinsiyet Rollerini Tutumu, Sağlık Önlisans Öğrencileri

Giriş

Gender refers to men's and women's socially defined roles and responsibilities. Gender, a dynamic concept, can change over time or from society to society (WHO, 1998; Savcı, 1999; European Communities, 2006; WHO, 2011). Gender is determined by many factors and is affected differently in every period of a person's life. At this point, some learning about the concept of gender takes place in the family. Following that, some gender norms are learned through socialization. For example,

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factors such as home and family environment, education and career status of parents, mother, siblings and friend groups, school life, and mass media are influential in the emergence of attitudes towards gender roles through the socialization process (Kavuran, 2011; Yaşar, 2011). In addition to these, other factors that reveal gender are the state, street, media and education (Daşlı, 2019). Gender roles are transferred to the individual by other institutions of society, especially the family. Thus, the person reveals the gender roles he has learned and internalized. For example, as soon as children are born, they begin to be taught what kind of girl or boy they will be, first within the family and then by society, through the names they are given, the clothes they wear, the decorations of their rooms, and the toys they buy (Daşlı, 2019).

Although gender overlaps with the biological sex that a person is born with, it is a very different social structure. In short, gender is a concept that expresses the social norms, roles, behaviors, qualities, or relations that the society in which we live determines for men and women (WHO, 2011; Altınova and Duyan, 2013). If gender equality exists, men and women will have equal access to and benefit from social and economic resources such as healthcare resources, services, laws, and policies (Güldü and Ersoy-Kart, 2007; WHO, 2011; WHO, 2018). In contrast, gender norms, where there is no equality, are effective in many aspects, such as women's and men's exposure to health risks, care-seeking behavior and access to care, health and how the health system meets their needs (WHO, 2019; Dalkılıç, 2021). Therefore, service providers need to consider strategies and practices from a gender equality perspective in the delivery of health services. As a result, students' awareness of gender inequalities that they will encounter both during the education process and while providing health services in the future will play a role in providing more effective and equitable health services.

The health system may lead to the persistence of gender bias and inequality in different forms of health professions (WHO, 2016). For university students to approach women and men with an egalitarian perspective in the early period, first of all, their stereotypes towards gender should decrease, and their perspectives on social relations should change positively. Studies in the literature emphasized the importance of developing curricula to include gender equality since the study department and curriculum affect gender attitudes (Turan et al., 2017; Alabaş et al., 2019). In this regard, university education can impact attitudes toward gender roles. There is no dedicated course on prejudice and discrimination in the education programs in Turkey's Health Services Vocational Schools, which teach health technicians. From this point of view, this study aimed to investigate the impact of an education program designed to enhance awareness about prejudice and discrimination on the perception of gender and gender role attitudes of associate degree students who will be offered health care. Answers to the following questions were sought for this purpose:

1. Is there a difference in the students' gender perception before and after the education on prejudice and discrimination?
2. Is there a difference in the students' gender role attitudes before and after the education on prejudice and discrimination?
3. Is there a relationship between gender perception and attitudes towards gender roles?

1. Methods

1.1. Aim and Research Methodology

This study is a single-group, pre-test-post-test design quasi-experimental study that compares the gender perception and gender role attitudes of second-year health services vocational school students who received prejudice and discrimination education.

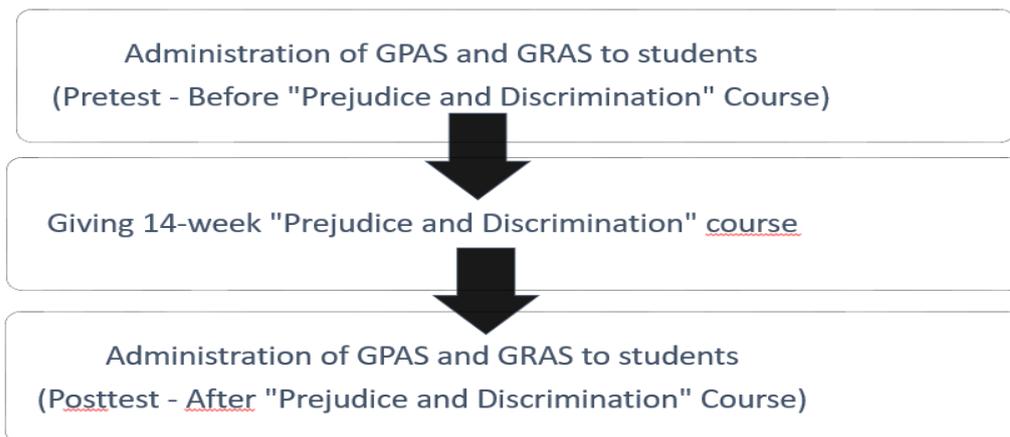
1.2. Participants

The study was carried out with second-year students of the Disabled Care and Rehabilitation program, the Pharmacy Services program, and the Occupational Therapy Program in the Vocational School of Health Services, which provides associate degree health education at a state university in Turkey. From the second-year students of the Disabled Care and Rehabilitation, the Pharmacy Services, and the Occupational Therapy Program, were 101 students registered in this course. However, 3 students did not attend the course even though they registered for the course. The lesson continued with the remaining 98 students. There was no sample selection in this study, conducted with 95 students who met the inclusion criteria and volunteered to participate. The researcher made no preliminary attempt to participate in the study to the students. Being enrolled in a course on prejudice and discrimination, having never taken a course on prejudice and discrimination previously, and volunteering to engage in the research were the inclusion criteria for the study. Students who repeat courses were not included in the study.

1.3. Procedure

Due to the great earthquake that shook ten provinces in February 2023, Turkey, the academic year 2022–2023' s spring semester courses were conducted online. The courses were conducted through synchronous classes and online education supported by the distance education center at the university where the study was conducted. Video recordings of the lessons were uploaded to an e-learning platform by the distance education center. Students who miss a synchronous lesson can join the online lesson at any time through the asynchronous learning network. The reason why sophomore students from the Disabled Care and Rehabilitation program, the Pharmacy Services program, and the Occupational Therapy Program were selected in the study is that the "Prejudice and Discrimination" course is given in the second-grade student spring semester. Before the course program started, GRAS and GPS were administered to the participants as a pretest. Afterwards, a fourteen-week course period on "Prejudice and Discrimination" was carried out. At the end of the course, GRAS and GPS were administered to the participants as posttests (Figure 1).

Figure 1. Flow Chart of the Research



1.3.1. Conducting the Prejudice and Discrimination Course

In a country like Turkey, where different segments try to live together, the course of Prejudice and Discrimination is unfortunately not compulsory in the curriculum. It is included in the curriculum of a limited number of universities as an elective course. It is essential to include the Prejudice and Discrimination course in the training flow for future health personnel who will provide services in the field of health and will work in contact with people from different segments. This is a two-ECTS course with two hours of theory. Prejudice and Discrimination course is a course that aims to provide

information about stereotypes, prejudice and discrimination, discrimination in intergroup relations, legitimation of discrimination, social identity, ageism, gender, social contact, and reducing prejudice and discrimination (see Table 1). Learning how to define prejudice, stereotypes, and discrimination and explain why discriminatory behavior is a social problem and how to prevent it is one of the course's learning objectives. The course within the scope of this research was conducted by the related instructor with synchronous distance education. The lessons were delivered via online distance learning at the scheduled times, and the students participated in the lesson by asking questions and providing examples. Weekly course presentations were uploaded as written documents to the online learning platform. As an end-of-term assignment, the students were asked to find "Men and Women Stereotypes" in Turkish society, present them with cartoons, and paste them on a backdrop cardboard. Afterward, the background cardboard containing stereotypes and cartoons representing them was displayed in an exhibition at the university on graduation day. The study lasted 14 weeks, between February and May of 2023.

Table 1. Prejudice and Discrimination course content

Weeks	Content of Course
1.	Basic Concepts: Stereotype, Prejudice and Discrimination
2.	Discrimination in the Context of Intergroup Relations
3.	Basic Expectation Effect: Self-fulfilling Prophecy
4.	Psychological Prejudice and Discrimination
5.	Legitimation of Discrimination
6.	Social Identity and Discrimination
7.	Prejudice and Discrimination Against Disabled People
8.	Ageism / Discrimination Based on Age
9.	Prejudice and Discrimination Based on Gender
10.	Poverty and Social Exclusion in the Context of Discrimination
11.	Reducing Prejudice and Discrimination
12.	Social Contact
13.	The Role of Non-Governmental Organizations in Combating Discrimination
14.	The Role of Law in Preventing Discrimination and Ensuring Equality

1.4. Data Collection Instrument

Data were collected through online surveys. Psytoolkit (version 3.4.2) was used to collect online data. Psytoolkit (Stoet, 2017) is a software package used to program and conduct psychological surveys and experiments online and offline.

1.4.1. Descriptive Information Form

In the form that the researchers devised, there are questions about gender, age, parent's education level, family type, number of siblings, and the place and region where they spent most of their life.

1.4.2. Gender Roles Attitude Scale (GRAS)

Zeyneloğlu (2008) created the scale to gauge how college students feel about gender roles. The GRAS Scale, which has 38 items, is graded from 0 to 5. The scale has five sub-dimensions, including equalistic gender roles for men and women, male gender roles, traditional gender roles for men, and female gender roles for marriage. The student has an egalitarian view of gender roles if the scale's highest value reflects that. Conversely, the lowest value shows that the student has a traditional view of gender roles. The reliability coefficient (Cronbach's Alpha) of the original study in which the scale was created was found to be 0.92. In this study, the scale's Cronbach's alpha value was 0.92 before and 0.94 after the test.

1.4.3. Gender Perception Scale (GPS)

Altnova and Duyan (2013) created the scale to measure people's perceptions of gender. The GPS Scale, which has 25 items, is graded from 1 to 5. An improvement in the scale's score demonstrates a favorable perception of gender. The scale's internal consistency coefficient was 87, and the validity

analysis revealed that the scale only had one dimension. In our study, the scale's internal consistency coefficient values for the pretest and posttest were 0.88 and 0.92, respectively.

1.4.4. Data Analysis

The data was analyzed by IBM SPSS Statistics version 23.0 for Windows (IBM Corp. Released 2015). The arithmetic mean, standard deviation, and frequency were used to display descriptive data. The Kolmogorov-Smirnov test, kurtosis, and skewness were used to verify the existence of a normal distribution. The Wilcoxon signed-rank test and the Spearman correlation test were used to compare the pretest and posttest scores because the conditions for a normal distribution were not met. Mann-Whitney U and Kruskal Wallis H tests were used to examine the effect of descriptive features on test scores. The study's overall significance level was set at $p < 0.05$.

1.5. Ethical Considerations

The study was given ethical approval by the university's non-interventional research ethics committee (No. 2023-16; 2023-GOAEK-0005). The study's objectives and its voluntary nature were explained to the students. They were also informed that if they opted out of the study, their grades would not be affected, their personal information would be kept private, and they could withdraw at any time. On the first page of the data collection tool, the students who agreed to participate in the study were informed about it, and their informed consent was obtained online.

2. Findings

2.1. Demographics and Background Data

The descriptive characteristics of the study participants' students are displayed in Table 2 as results. According to the students' descriptive characteristics, it was found that the mean age of the participants in the study was 21.6 ± 3.3 , and that 73.7% of them were female. According to the study, most students' mothers (56.9%) and fathers (38.9%) had completed elementary school. The families of 73.7% of the participants are nuclear families. The students' average number of siblings was found to be 2.8 ± 2.1 , and the majority (51.6%) of them had both brothers and sisters. The investigation discovered that 43.2% of the students lived primarily in the city center. Most students who participated in the study said that the Black Sea region was where they spent most of their lives (46.3%).

Table 2. Students Descriptive Characteristics Distribution

		N	%
Sex	Female	70	73,7
	Male	25	26,3
Mean Age (X ± SD)		21,6±3,3	
Program	Occupational Therapy	33	34,7
	Disabled Care and Rehabilitation	39	41,1
	Pharmacy Services	23	24,2
Mother's educational status	Primary-School Graduate	54	56,9
	Secondary School Graduate	25	26,3
	High-School Graduate	10	10,5
	Associate Degree Graduate	4	4,2
	Bachelor and Above Graduate	2	2,1
Father's educational status	Primary-School Graduate	37	38,9
	Secondary School Graduate	28	29,5
	High-School Graduate	20	21,0
	Associate Degree Graduate	5	5,3
	Bachelor and Above Graduate	5	5,3
Family type	Nuclear Family	70	73,7
	Extended Family	25	26,3
Average number of siblings (X ± SD)		2,8±2,1	
Sibling information	Both Sister and Brother	49	51,6
	Only Sister	23	24,2
	Only Brother	21	22,1
	No Siblings	2	2,1
Where you spend most of your life	Village/Town	21	22,1
	District	21	22,1
	Province/city	41	43,2

Table 2 (cont'd)

	Big City	12	12,6
	Black Sea Region	44	46,3
	Central Anatolia Region	25	26,3
	Southeastern Anatolia Region	13	13,7
Geographic region (in Turkey) where most of life is spent	Eastern Anatolia Region	8	8,4
	Mediterranean Region	3	3,2
	Aegean Region	2	2,1
	Marmara Region	0	0,0
	Total		95

2.2. GPS and GRAS Pretest-Posttest Comparison

Table 3 shows the results of comparing the students' GPS and GRAS total and subscale score means. There was no statistically significant difference between the students' GRAS total score and sub-scale scores after the intervention in our study ($p > 0.05$). When Table 3 is examined, it is clear that there is no significant difference between the GPS total score means of the students ($p > 0.05$).

Table 3. Comparison of Students' Gender Perception Scale(GPS), Gender Roles Attitude Scale(GRAS) Total Scores and Subscale Total Scores (n = 95)

	Pretest Scores (X ± SD)	Posttest Scores (X ± SD)	p-value*
GPS	106,1±11,4	105,2±14,9	0,890
GRAS	161,4±17,9	161,0±21,1	0,976
Equalistic Gender Attitude	36,7±3,8	36,1±4,8	0,341
Female Gender Attitude	30,6±5,1	30,5±5,3	0,890
Marriage Gender Attitude	36,9±3,9	36,6±4,1	0,549
Traditional Gender Attitude	31,2±5,4	31,6±6,3	0,403
Male Gender Attitude	26,0±3,5	26,2±4,0	0,640

2.3. GPS and GRAS Pretest-Posttest Comparison According to Descriptive Characteristics

In table 4, when GPS and GRAS scores in the pre-test and post-test are compared by sex, women's pre-test scores were found to be higher than men in both GPS and GRAS scores ($p=0.002$ for GPS, $p<0.001$ for GRAS). In the post-test conducted after the training, there was no statistically significant difference between the scores of men and women ($p=0.869$ for GPS, $p=0.682$ for GRAS).

Considering the descriptive characteristics other than sex, such as age, program, mother's education level, father's education level, family type, number of siblings, type of siblings, where most of the life is spent and geographic region where most of the life is spent; there was not found a statistically significant difference between the groups in terms of GPS and GRAS scores (Table 4).

Table 4. Comparison of Students' Average Scores from GPS and GRAS Before and After Training According to Their Descriptive Characteristics

Descriptive Characteristics	Pretest Scores (X ± SD)		Posttest Scores (X ± SD)	
	GPS	GRAS	GPS	GRAS
Sex				
Female	108.7±8.7	166.2±13.6	105.7±13.2	162.4±17.9
Male	98.8±14.8	148.0±21.7	103.8±19.1	157.0±28.4
p-value	(0.002)	(0.001)	(0.869)	(0.682)
Age				
19-21 years	104.8±11.7	159.0±17.5	103.3±17.5	157.8±24.7
≥22 years	108.0±11.0	164.7±18.2	107.9±9.5	165.5±13.7
p-value	(0.141)	(0.084)	(0.414)	(0.189)
Program				
Pharmacy Services	107.6±10.8	163.7±18.6	108.1±13.1	166.2±17.3
Disabled Care and Rehabilitation	106.1±12.0	163.0±17.4	101.5±19.7	156.3±24.5
Occupational Therapy	105.2±11.5	158.7±18.1	106.6±10.3	161.9±17.5
p-value	(0.589)	(0.324)	(0.455)	(0.284)
Mother's educational status				
Primary-School Graduate	105.8±11.7	162.3±17.5	104.7±14.2	160.5±19.5
Secondary School Graduate	107.0±11.2	160.2±20.3	105.1±19.3	159.8±28.0
High-School Graduate	105.5±12.6	158.9±17.9	105.9±9.8	164.9±15.0
Associate Degree Graduate	111.0±8.8	166.8±17.2	111.8±4.0	171.0±6.3
Bachelor and Above Graduate	95.0±1.4	152.5±0.7	101.5±4.9	150.0±5.7
p-value	(0.384)	(0.690)	(0.724)	(0.574)

Table 4 (cont'd)

Father's educational status				
Primary-School Graduate	108.0±8.7	163.5±12.4	104.0±13.8	160.3±17.9
Secondary School Graduate	103.3±14.6	158.4±23.4	106.3±18.8	161.0±27.9
High-School Graduate	106.4±11.7	159.5±20.1	103.6±11.4	160.5±18.2
Associate Degree Graduate	106.4±9.9	164.2±13.5	110.0±18.2	165.6±22.9
Bachelor and Above Graduate	106.6±10.7	167.2±14.3	109.2±8.5	163.5±14.9
<i>p-value</i>	(0.918)	(0.964)	(0.329)	(0.846)
Family type				
Nuclear Family	105.0±11.9	160.7±18.3	105.0±16.0	160.1±23.2
Extended Family	109.0±9.6	163.2±17.2	105.6±11.4	163.4±14.0
<i>p-value</i>	(0.190)	(0.568)	(0.774)	(0.960)
Number of siblings				
0-1 sibling	105.5±13.7	162.9±20.7	104.1±14.6	156.6±22.1
≥2 siblings	106.4±10.4	160.8±16.8	105.6±15.1	162.8±20.6
<i>p-value</i>	(0.747)	(0.317)	(0.593)	(0.171)
Sibling type				
Only Sister	105.4±11.3	161.7±18.7	106.9±13.7	161.3±18.6
Only Brother	107.6±14.2	166.2±21.5	104.5±14.3	159.6±23.1
Both Sister and Brother	106.2±10.3	159.5±16.2	104.8±16.1	161.9±22.1
No Siblings	95.0±1.4	152.5±0.7	101.5±4.9	150.0±5.7
<i>p-value</i>	(0.139)	(0.104)	(0.729)	0.603)
Where Most of Life is Spent				
Village/Town	104.9±11.2	156.2±18.2	107.0±12.6	163.4±18.5
District	107.9±7.8	163.7±13.8	108.4±13.7	165.0±16.9
Province/city	106.5±11.6	162.9±18.1	102.3±16.5	157.6±23.2
Big City	104.0±16.5	161.2±23.2	106.2±14.8	161.3±25.2
<i>p-value</i>	(0.813)	(0.461)	(0.298)	(0.538)
Geographic Region (in Turkey) Where Most of Life is Spent				
Mediterranean	108.7±12.7	159.3±21.6	108.3±7.6	168.0±6.2
Eastern Anatolia	100.4±13.1	153.1±17.9	108.1±6.6	163.3±11.6
Aegean	105.5±12.0	160.0±8.5	109.5±12.0	165.0±17.0
Southeastern Anatolia	104.2±12.7	152.1±19.6	108.5±8.5	166.8±15.3
Central Anatolia	105.7±14.8	160.5±22.6	105.3±18.3	162.1±26.7
Black Sea Region	107.8±8.3	166.3±13.1	103.2±15.9	157.6±21.3
<i>p-value</i>	(0.758)	(0.102)	(0.976)	(0.696)

2.4. GPS and GRAS Mean Scores Relationship

Table 5 shows the relationship between the students' GPS and GRAS pretest and posttest total scores. GPS and GRAS pretest and posttest total mean scores showed a strong positive correlation (pretest $r = 0.825$, $p < 0.01$; posttest $r = 0.893$, $p < 0.01$).

Table 5. GPS and GRAS Pretest and Posttest total mean scores' Relationship

GPS and GRAS Pretest Total Mean Scores' Relationship	
Results of correlation tests	GRAS
GPS	0.825**
GPS and GRAS Posttest Total Mean Scores' Relationship	
Results of correlation tests	GRAS
GPS	0.893**

3. Discussion

In this study, gender perception and gender role attitude levels of second-year health services vocational school students who received prejudice and discrimination education were compared. The results of the study revealed that it was found that the online distance course "Prejudice and Discrimination" did not affect gender roles attitudes and gender perceptions. When the literature was examined, studies showed that education did not affect gender role attitudes (Toraman and Özen, 2019; Karakoç et al., 2022), as well as studies showing that it affected it positively (Uzun et al., 2017; Egelioglu Cetişli et al., 2017; Erdol and Gözütok, 2019; Koç et al., 2021). Similarly, when looking at the studies examining the effect of education on gender perception, studies showed that education had no effect (Ernst et al., 2000; Karakoç et al., 2022) as well as studies showing that it affected it positively (Seçgin and Kurnaz, 2015; Uzun et al., 2017; Gönenç et al., 2018;).

The mean age of the educated participants in this study was 21.6±3.3, and the students were university students. According to the literature, there are primarily studies conducted with university students. Studies with family and preschool children are limited (Yağan et al., 2016; Doğan Yaylak, 2023;

Ölmez, 2023). For example, Doğan Yaylak, in his thesis study, found that students' awareness status, views, and thoughts on gender equality improved as a result of workshops designed and implemented for students in the fourth-grade social studies course of primary school on the topic of gender equality. Therefore, awareness studies to be carried out earlier are needed to assimilate gender equality in society (Koyuncu Şahin and Çoban, 2019). In this study, the reason why the "Prejudice and Discrimination" course did not affect gender roles attitudes and gender perception may be because it is more difficult for university students to develop attitudes and perceptions through education compared to earlier ages (Koyuncu Şahin et al., 2018). For this reason, there is a need for studies to be carried out mainly with students at earlier ages.

In this study, the training, which is the intervention between the pretest and the posttest, was conducted online and remotely due to the earthquake disaster in our country. Studies in the literature show that the effect of online and distance education is weaker compared to face-to-face education (Brown and Liedholm, 2002; Peterson and Bond, 2004; Addis, 2009; Callister and Love, 2016). In this study, the reason education did not affect gender roles attitude and gender perception may be because the education was given online and remotely. However, studies and comparisons with face-to-face education are needed to say this definitively.

In this study, the Gender Roles Attitude Scale (GRAS) and the Gender Perception Scale (GPS) were used. The lowest possible score on the GRAS is 38, and the highest possible score is 190, and it is stated that as the score obtained from the scale increases, gender role attitudes increase positively. While the lowest score that can be obtained from the GPS is 25, the highest score is 125, and it is stated that as the score obtained from the scale increases, the perception of gender increases positively. In this study, while the mean score of the students in the Gender Roles Attitude Scale pretest was $161,4 \pm 17,9$, the mean score they got from the Gender Perception Scale pretest was $106,1 \pm 11,4$. In other words, students' scores in the pretests of gender-related scales are high. Raising these scores with education is more difficult in this case, so education may not affect gender role attitudes and gender perception. When studies showing the benefits of education are examined from the literature, it is seen that the pretest scores of the students are lower than those in this study (for perception, Uzun et al., 2017; for attitude, Egelioglu Cetişli et al., 2017; Koç et al., 2021). In this study, the students' high scores in the pretest on the gender-related scales may be because they are university students (Vefikuluç et al., 2007; Yılmaz et al., 2009; Kahraman et al., 2014), come from regions with a relatively higher socioeconomic status (Kul Uçtu and Karahan, 2016), and there are more students from the nuclear family rather than the traditional extended family (Kul Uçtu and Karahan, 2016).

Although it was found in this study that education did not affect gender roles attitudes and gender perception, it is essential to provide education on gender to raise awareness about gender equality and develop egalitarian gender roles (Egelioglu Cetiflli et al., 2017; Uzun et al., 2017). For instance, one study found that students' attitudes toward gender roles were influenced by the gender equality course, with students' attitudes becoming more egalitarian after the course (Egelioglu et al., 2017). Similarly, some researchers asserted that gender equality courses given to different student groups positively impacted their attitudes toward gender roles (Aksan et al., 2011; Bakioğlu, 2019).

One of the most important findings of this study is that while women's scale scores were higher than men in the pretest; This difference disappeared after training. In other words, it can be said that the "Prejudice and Discrimination" course changed men's perception and attitude. Similarly, studies in the literature reveal that education is effective on gender perception or attitude (Erdol and Gözütok, 2019; Seçgin and Kurnaz, 2015). Therefore, it is important that educational curricula affect gender attitudes and therefore curricula are developed to include gender (Alabaş et al., 2019; Turan et al., 2017).

In the study, when age, program, mother's education level, father's education level, family type, number of siblings, sibling type, place and region where most of the life is spent, it was found that there was no statistically significant difference between the groups for both GPS and GRAS in the pretest and posttest. Similarly, in the study conducted by Elgün and Yeniçeri-Alemdar (2017), no significant differences were found between gender roles attitudes and family income level, place of birth, geographical region, and parents' education level. This is not the case in the literature. There are also studies showing the opposite results (Varol et al., 2016; Öngen and Aytaç, 2013).

The research's correlation analysis revealed a significant positive correlation between the students' mean GRAS and GPS scores on the pretest and posttest conducted before and after the education. In other words, when the gender attitude is positive, the perception of gender is also shaped positively. Studies in the literature indicate that students who receive gender education have a more positive gender role attitude, and thus, traditional gender perception can also develop with social learning (Ergin et al., 2019; Özdemir et al., 2019). As a result, the university process of young people can be an essential step in transferring the attitude toward gender roles to future life. The fact that university students can approach men and women with an egalitarian perspective in the early period is essential in reducing their stereotypical perceptions of gender and changing their perspectives on social relations positively.

Conclusion and Limitations of the Study

According to the findings of the research, the "Prejudice and Discrimination" course created a change in perception and attitude in men. This has shown that men and women can be brought to equal levels in terms of perception and attitude towards gender through education. In future studies, it may be effective to specifically target men in training activities aimed at improving perceptions and attitudes towards gender.

However, in the study, gender attitudes and perceptions of Health Services Vocational School students did not change following training on stereotypes, prejudice, and discrimination. It is thought that reasons such as the relatively high pretest scores of students regarding gender attitudes and perceptions, distance and online education, and the difficulty of changing attitudes and perceptions due to the age of the students are thought to cause this situation. On the other hand, healthcare workers have important roles and responsibilities in preventing and reducing problems based on gender inequality. In this direction, there is a need for studies on the content, the way, and the timing of the education that should be given to positively develop the gender attitudes and perceptions of the students who will provide health services in the future. Therefore, this study is essential in terms of revealing that the "Prejudice and Discrimination" course given to university students through distance and online education does not affect gender attitudes and perceptions.

In line with the results obtained, comparative studies can be conducted in terms of department, curriculum, and curriculum content, which are thought to be effective on university students' gender attitudes and perceptions. Multiple follow-up studies can be conducted with larger sample groups and a control group to assess the effectiveness of the students' education. Finally, there is a need for intervention studies to be carried out in the face-to-face education process.

It is acknowledged that the study has several limitations. First, the study was carried out with 2nd - year students in three different associate degree programs of a university, limiting the generalizability of the findings to all students. Secondly, since the training is done online and remotely, it cannot be compared with face-to-face training. Third, the study used a quasi-experimental design with pretest/posttest measures; because there was no control group, there was no way to compare groups.

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