

## SAĞLIK BİLİMLERİ FAKÜLTESİ ÖĞRENCİLERİNİN ENGELLİLİĞE YÖNELİK TUTUMLARININ İNCELENMESİ\*

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### ÖZ

Bu çalışmanın amacı, Sağlık Bilimleri Fakültesi öğrencilerinin engelliliğe yönelik tutumlarını belirlemektir. Çalışmanın örneklemini, Kırıkkale Üniversitesi Sağlık Bilimleri fakültesinde 2015-2016 eğitim öğretim döneminde eğitim alan ve çalışmaya katılmayı kabul eden 906 öğrenci oluşturmuştur. Ölçüm araçları; "Sosyo-demografik veri formu" ve "Özürlülere yönelik tutum ölçeği" (ÖYTÖ) dir. Öğrencilerin %75,9'u (688) kız, % 24,1'i (218) erkektir. Kız öğrencilerin ÖYTÖ puan ortalamalarının erkeklerden daha yüksek olduğu saptanmıştır ( $p<0,01$ ). Öğrencilerin ÖYTÖ puan ortalamalarında, bölümlere göre ( $p<0,01$ ) ve devam ettikleri sınıfa göre ( $p<05$ ) istatistiksel olarak anlamlı düzeyde fark saptanmıştır. Ölçeğin alt boyutlarından; eğitim ortamı, kişilerarası ilişkiler, çalışma yaşamı, kişisel özellikler ve yetkinlik-bağımsız yaşam puan ortalamalarında anlamlı fark olduğu görülmüştür ( $p<0,01$ ). Ölçek puan ortalamalarındaki farklılıklar, Çocuk Gelişimi ve Fizyoterapi ve Rehabilitasyon Bölümü öğrencilerinden kaynaklanmaktadır. "Engelli Bireylere Yönelik Tutum Ölçeği" ortalama puanları düşük olan öğrencilerin tutumlarını iyileştirmeye yönelik çalışmalar yapılabilir. Bu amaçla uygun dersler, eğitim programında yer alabilir.

**Anahtar Kelimeler:** Eğitim, engelli birey, üniversite, öğrenci, hassas gruplar

## EXAMINING THE ATTITUDES OF UNIVERSITY STUDENTS IN THE FACULTY OF HEALTH SCIENCES TOWARD DISABILITY

### ABSTRACT

The aim of this study was to examine the attitudes of university students in the faculty of health sciences toward disability. This descriptive study was conducted with 906 students enrolled in the Health Science Faculty of Kırıkkale University in the 2015-2016 academic year. The measurement instruments were the "Sociodemographic Data Form" and the "Attitudes toward Disabled Persons Scale". Of the students, 75.90% (688) were females, 24.1% (218) were males. It was found that the female students' "Attitudes toward Disabled Persons Scale" mean scores were higher than the male students' scores ( $p<0.01$ ). Statistically significant differences were found in the "Attitudes toward Disabled Persons Scale" scores in terms of the students' departments ( $p<0.01$ ) and their classes ( $p<0.05$ ). In the subscales, it was seen that there were significant differences in the mean scores of the students in the domains of educational environment, interpersonal relations, work life, personal characteristics and competence-independent living ( $p<0.01$ ). The differences stemmed from

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the mean scores of the students in the Child Development and Physiotherapy and Rehabilitation Departments. Studies may be carried out to improve the attitudes of students whose "Attitudes toward Disabled Persons Scale" mean scores are low. It may be appropriate to schedule lessons aimed for this purpose so that they are made available over the entire course of the educational program.

**Keywords:** Education, disabled person, university, student, vulnerable population

## INTRODUCTION

Disability refers to the physical or functional problems an individual faces in carrying out a task or action, making it difficult to participate in activities of daily living. For this reason, disability is not only a health issue but a complex phenomenon that reflects the disabled person's interaction with the specific facets of society (WHO, 2007). While it is estimated that approximately 15% of the world's population has some form of disability, this rate is on the rise due to an aging population and the increase of chronic diseases (WHO, 2011).

Because of their disability and other health issues, disabled individuals feel more of a need for health services compared to able-bodied persons (Durduran and Bodur, 2009; Sari, 2010; Karadağ and Bilsin, 2016). Durduran and Bodur, (2009) found in their controlled study of 258 disabled and 258 able-bodied children that, when the two groups were compared in terms of their health issues, disabled children were 6 times as likely as the control group to be hospitalized for health problems outside of their disabilities. The noticeably frequent need of disabled individuals for healthcare services has caused shortcomings in policies, financing, accessibility issues and an inadequacy of services for the disabled as well as negative attitudes, causing this group to live their lives facing many challenges (Chan and Zoellick, 2011; Çaha, 2016). Attitudes refer to the positive or negative way an individual regards an object or thought (Pratkanis et al., 2016). Attitudes have to do with emotions, thoughts and behavior and signify an acquired state (Pratkanis et al., 2016; Yorke et al., 2017; TDK, 2018). When it is considered that disability represents the disabled individual's interaction with the many aspects of society, the importance of attitudes toward the disabled of individuals comprising society is better understood. Disabled individuals have a higher likelihood of enlisting the services of healthcare professionals. Because of this, it is imperative to know what the attitudes of healthcare workers are toward disabled individuals. In a study Yorke et al. conducted with doctorate students in the physiotherapy and rehabilitation departments (2017), it was found that the students' attitudes toward the disabled were generally positive but no change could be detected in their attitude scores over the course of their education. In a study by Kritsotakis et al. (2017), the researchers evaluated students of nursing, social services and medicine in terms of their attitudes toward the disabled and found that the students in the social services department had lower attitude scores. Çömez and Sarıkaya reported in their study (2017) that students of Nursing were generally positive about the disabled but working students had certain prejudices to the effect that disabled individuals were more of a burden to care for than other patients.

In order to change the attitudes of society toward a specific group, there must be an effort made to determine first of all what the situation is (Aiden and McCarthy, 2014). For this reason, it is important first to ascertain the attitudes of students in the Faculty of Health Sciences since it will be these individuals who will be the health professionals working with the disabled in the future, and secondly to work to change any negative attitudes that this group may have in this context. The aim of our study was examining the attitudes of university students in the faculty of health sciences toward disability.

## METHODS

### Design

The study design was descriptive. Students attending five different departments at health science faculty of Kırıkkale University in Turkey were approached in the context of clinical and theoretical courses during the academic years 2015-2016.

### Sample and participants

Of the students who were present in the courses at health science faculty, 906 agreed to participate in the study (response rate > 95%). Among the students in the study group, 75.90% (688) were female, 24.10% (218) were male. Their departments were Nursing (28.60%), Nutrition and Dietetics (8.50%), Child Development (17.90%), Physiotherapy and Rehabilitation (24.40%), and Health Management (20.60%) ( Table 1).

**Table 1.** Distribution of students in the faculty of health sciences, by department

Department	1st Year	2nd Year	3rd Year	4th Year	Total	%
Nutrition and Dietetics	38	39	-	-	77	8.5
Child Development	43	45	46	28	162	17.9
Physiotherapy and Rehabilitation	70	48	59	44	221	24.4
Nursing	72	90	53	44	259	28.6
Health Management	50	58	38	41	187	20.6
Total	273	280	196	157	906	100

### Data collection

After explaining the research to all of the students in a Health Science Faculty, those who consented to participate were provided with data collection forms and asked to complete these in the classroom in 15-20 minutes.

### Measures

The students' attitudes toward the disabled constituted the dependent variables in the study and gender, department and class were the independent variables. The data collection instruments consisted of a "Questionnaire" prepared by the researchers and an "Attitudes Toward the Disabled Scale" (ATDS) developed by Kaner et al (2009). The questionnaire was made up of 21 questions on some of the students' sociodemographic characteristics (gender, department, class...). The ATDS is a 5-point Likert-type of scale that comprises 43 questions developed to determine an individual's attitude toward the disabled. The ATDS consists of the subscales of Educational Environment, Interpersonal Relations, Work Life, Family Life, Personal Characteristics and Competence-Independent Living.

**Educational Environment (EE):** This subscale consists of three items meant to assess how the participants believe the disabled should be educated (1, 5, 39).

**Interpersonal Relations (IR):** In this subscale, there are nine statements related to the participants' attitudes about interacting with the disabled (2, 10, 14, 25, 29, 32, 35, 38, 41). **Work Life (WL):** This subscale contains nine statements assessing the participants' attitudes toward the working life of the disabled (4, 6, 8, 28, 33, 34, 40, 42, 43).

**Family Life (FL):** This subscale contains three statements assessing the participants' attitudes about the impact of the disabled on their families (7, 16, 18).

**Personal Characteristics (PC):** This subscale contains seven statements that assess the participants' beliefs about the characteristics of the disabled (9, 11, 17, 20, 22, 23, 37).

**Competence-Independent Living (CIL):** This subscale consists of 12 statements that assess the participants' thoughts about the competence of the disabled and how they can live an independent life (3, 12, 13, 15, 19, 21, 24, 26, 27, 30, 31, 36). The participants indicate the degree to which they agree or disagree with each of the statements by choosing one of the responses, "I totally agree" (5), "I agree" (4), "I'm undecided" (3), "I disagree" (2) "I totally disagree" (1). On the Attitudes Toward the Disabled Scale (ATDS), some of the statements are positive (2, 3, 4, 6, 10, 12, 13, 14, 15, 19, 21, 24, 25, 26, 27, 29, 30, 31, 32, 34, 35, 36, 38, 41), and some statements express negative (1, 5, 7, 8, 9, 11, 16, 17, 18, 20, 22, 23, 28, 33, 37, 39, 40, 42, 43) attitudes. The negative items are scored in reverse. Scoring high on the ATDS signifies a positive attitude toward the disabled. Five of the items on the ATDS represent emotions (2, 25, 26, 29, 32, 36), four (10, 14, 38, 41) represent behavior, while the others involve the dimensions of thoughts and beliefs.

The highest and lowest possible scores on the ATDS are 43 and 215; the higher the score on the scale, the more positive is the individual's attitude toward the disabled (Kaner et al. 2009). Cronbach's alpha coefficient in the study used as a reference was an overall .88 (Kaner et al. 2009), whereas it was 0.83 in our study.

#### **Ethical considerations**

The Kırıkkale University Ethics Committee approved the study (Approval No. 25.08.2015-4). Permission to collect data from students was granted from health science faculty'dean. Whole students participated to this research filled the informed consent form.

#### **Data analysis**

The data from the questionnaire in the research were first analyzed in terms of frequencies and percentages on the SPSS 16.0 program. A normality test was carried out to determine whether the data were normally distributed. Because the results of the subscales of the Attitudes Toward the Disabled Scale did not reveal normal distribution, the variables were further analyzed with the Mann Whitney U and Kruskal Wallis tests to determine the differences in attitudes toward the disabled between students. Statistical significance for the study was accepted as  $p < .05$ .

### **RESULTS**

The data were analyzed by taking into consideration the variables of the university students' highest and lowest mean scores on the ATDS, their gender, departments and classes. The students' attitude toward the disabled mean score was  $\bar{x} = 138.00$ . When it is considered that the highest possible score on the scale is  $\bar{x} = 215$ , it can be said that the students' positive attitudes toward the disabled were at a moderate level.

A review of Table 2 reveals that in all of the subscales of the ATDS, the mean ranks of the male students are lower than those of the female students. The Mann-Whitney U test showed that gender was responsible for a statistically significant difference between all of the subscales of the ATDS (educational environment, interpersonal relations, work life, family life, personal characteristics, competence-independent living) and in the overall scores ( $p < 0.01$ ).

**Table 2.** Students' attitude toward the disabled scores (ATDS), by gender (n:906)

ATDS Subscales	Gender	n	Mean Rank	SD	Statistical value*	
					z	p
Educational Environment	Female	688	484.55	1.85	-7.820	.000
	Male	218	337.47			
Interpersonal Relations	Female	688	472.13	4.75	-4.931	.000
	Male	218	372.25			
Work Life	Female	688	485.16	5.30	-7.610	.000
	Male	218	330.96			
Family Life	Female	688	466.96	2.45	-3.828	.000
	Male	218	390.03			
Personal Characteristics	Female	688	475.41	4.37	-5.389	.000
	Male	218	366.16			
Competence-Independent Living	Female	688	466.27	5.29	-4.790	.000
	Male	218	369.26			
Total	Female	688	468.31	18.78	-6.916	.000
	Male	218	329.73			

SD: Standard Deviation

\* Mann Whitney U

Table 3 displays the results of the Kruskal-Wallis H Test on the students' attitudes toward disabled persons, by school class. While it was seen that the class the students were in did not produce a significant difference in the mean ranks on the ATDS subscales of educational environment ( $\chi^2 = 7.439$ ,  $p > .05$ ), personal characteristics ( $\chi^2 = 2.662$ ,  $p > .05$ ) and competence-independent living ( $\chi^2 = 7.463$ ,  $p > .05$ ), the difference in the mean ranks in interpersonal relations ( $\chi^2 = 11.579$ ,  $p < .05$ ), work life ( $\chi^2 = 15.525$ ,  $p < .05$ ), family life ( $\chi^2 = 10.645$ ,  $p < .05$ ) and in the overall attitudes scores ( $\chi^2 = 10.992$ ,  $p < .05$ ) was in fact significant.

To determine which groups were responsible for the difference, a Bonferroni correction Mann-Whitney U test was performed and it was observed that the difference in the work life and overall attitude scores stemmed from the difference between the 1st and 4th year and the 2nd and 3rd year classes, from the difference between the 1st and 2nd year classes in the interpersonal relations dimension, and from the difference between the 2nd year and the 3rd and 4th year classes in the family life dimension ( $p < 0.05$ ).

**Table 3.** Distribution of mean attitude toward the disabled scores, by class

Subscales	Class	n	Mean Rank	$\chi^2$	P*	Difference
Educational Environment	1	273	427.81	7.439	0.059	
	2	280	468.98			
	3	196	471.63			
	4	157	423.92			
Interpersonal Relations	1	273	407.57	11.579	0.009**	1-2
	2	280	476.67			
	3	196	469.85			
	4	157	441.63			

Work Life	1	273	406.87	15.525	0.001**	1.4-2.3
	2	280	481.39			
	3	196	478.15			
	4	157	423.56			
Family Life	1	273	447.82	10.645	0.014***	4-2
	2	280	486.10			
	3	196	422.33			
	4	157	414.57			
Personal Characteristics	1	273	438.18	2.662	0.447	
	2	280	460.27			
	3	196	465.40			
	4	157	429.43			
Competence-Independent Living	1	273	416.01	7.463	0.059	
	2	280	465.04			
	3	196	465.78			
	4	157	423.29			
Total	1	273	396.37	10.992	0.012***	1.4-2.3
	2	280	464.69			
	3	196	451.85			
	4	157	428.68			

\*\*p<0.01, \*\*\* p<0.05 \*Kruskal-Wallis H Test

It can be seen from Table 4 that compared in terms of the departments the students were in, the ATDS subscales did display a significant difference in family life ( $\chi^2=8.781$ ,  $p>.05$ ), but there were significant differences in mean ranks in the subscales of educational environment ( $\chi^2=73.187$ ,  $p<.05$ ), interpersonal relations ( $\chi^2=40.864$ ,  $p<.05$ ), work life ( $\chi^2=55.418$ ,  $p<.05$ ), personal characteristics ( $\chi^2=27.971$ ,  $p<.05$ ), competence-independent living ( $\chi^2=24.320$ ,  $p<.05$ ) and in overall attitude ( $\chi^2=49.150$ ,  $p<.05$ ).

The result of the Bonferroni correction Mann-Whitney U test performed to determine which groups caused the difference showed that the difference in the educational environment, interpersonal relations, work life, personal characteristics, competence-independent living dimensions and in the overall attitude scores stemmed from the mean ranks of the students enrolled in the Child Development and Physiotherapy and Rehabilitation departments. The mean ranks of the students in the Child Development department were higher than the mean ranks of students attending the other departments.

**Table 4.** Students' attitudes toward the disabled, by their departments

Subscales	Department	n	Mean Rank	Statistical Values*		
				$\chi^2$	p	Difference
Educational Environment	Nutrition and Dietetics	77	482.34	73.187	0.000**	2-3
	Child Development	162	567.06			
	Physiotherapy & Rehabilitation	221	356.52			
	Nursing	259	444.77			
	Health Management	187	449.75			

Interpersonal Relations	Nutrition and Dietetics	77	423.02			
	Child Development	162	540.79			
	Physiotherapy & Rehabilitation	221	373.43	40.864	0.000**	2-3
	Nursing	259	449.16			
	Health Management	187	465.98			
Work Life	Nutrition and Dietetics	77	434.53			
	Child Development	162	556.86			
	Physiotherapy & Rehabilitation	221	361.26	55.418	0.000**	2-3
	Nursing	259	467.07			
	Health Management	187	435.87			
Family Life	Nutrition and Dietetics	77	465.27			
	Child Development	162	470.39			
	Physiotherapy & Rehabilitation	221	404.50	8.781	0.067	
	Nursing	259	456.09			
	Health Management	187	463.98			
Personal Characteristics	Nutrition and Dietetics	77	414.03			
	Child Development	162	507.52			
	Physiotherapy & Rehabilitation	221	380.44	27.971	0.000**	2-3
	Nursing	259	475.93			
	Health Management	187	457.30			
Competence-Independent Living	Nutrition and Dietetics	77	429.54			
	Child Development	162	501.16			
	Physiotherapy & Rehabilitation	221	379.80	24.320	0.000**	2-3
	Nursing	259	468.50			
	Health Administration	187	438.70			
Total	Nutrition and Dietetics	77	413.05			
	Child Development	162	526.47			
	Physiotherapy & Rehabilitation	221	348.00	49.150	0.000**	2-3
	Nursing	259	457.88			
	Health Management	187	435.34			

\* Kruskal-Wallis H Test

\*\* p&lt;0.01

## DISCUSSION

In this study that explored the attitudes of students in the Faculty of Health Sciences toward disabled persons, we considered the attitudes toward the disabled mean scores of the students and their ATDS subscale and overall scores in terms of some variables (gender, class and department). It can be said that the study indicated that the students' attitudes toward disabled persons were at a moderate level. This finding is consistent with the literature (Culp et al., 2017; Gedik and Toker, 2018; Ruiz et al., 2020). A look into the ATDS scores by gender shows that the attitudes of females toward disabled

individuals were better than those of the male students (See Table 2). In a study carried out by Gedik and Toker with university students (2018), it was reported that females had a more positive attitude toward the disabled compared to males. Ruiz et al. (2020) found female nursing and physiotherapy students' attitudes had a more positive than males. Culp et al. (2017) also found female university students' attitudes to be more positive than male students. There are other articles in the literature supporting these findings (Şahin and Akyol, 2010; Symons and McGuigan, 2014). A study by Symons et al. (2014) reveals that the male students taking part in the research felt sorry for disabled persons and felt that these individuals needed special treatment.

The ATDS scores of the students according to class indicated that the scores of the higher classes were higher in the domains of interpersonal relations, work life, family life and in terms of the overall score. There are studies in the literature that show that the higher the level of education (Stachura and Garven, 2003) and the more a student gains working experience (Stachura and Garven, 2007), the more positive will be the attitude toward the disabled (Girli et al., 2016).

Reviewing the ATDS scores in terms of the department a student was enrolled in, we found that the subscale scores in the domains of educational environment, interpersonal relations, work life, personal characteristics and competence-independent living as well as in the overall scores for the Child Development Department were significantly higher. It was observed that students in Physiotherapy and Rehabilitation exhibited the lowest scores of all of the subscales (See Table 4). In the study by Wozencroft et al. (2015), students were given training and provided with the opportunity to work directly with disabled individuals. At the end of the training and after 3 months had passed, it was observed that there had been a significant improvement in the students' attitudes toward the disabled. In this study, although higher scores were observed among the students taking courses on the disabled (e.g., Special Training, Disabled Rights, Language and Speech Disorders, Specialized Applications) and among those in Child Development who worked with disabled children (e.g., at the Autistic Children Center), it was interesting to note that the scores of the students in the Physiotherapy and Rehabilitation Department were the lowest. This finding might be explained by the fact that most of the students in the Physiotherapy and Rehabilitation Department were 1st and 2nd year students and therefore had not experienced the internship program that is set out in the curriculum for fourth-year students. Another underlying factor may have been a possible desensitization of the students arising from working continuously with disabled individuals. In a study conducted in Nigeria with students in the Physiotherapy and Rehabilitation Department, it was reported that although students had a positive attitude toward the disabled, stigmatization was observed in regard to the perceived emotional capacity of disabled individuals (Vincent-Onabajo and Malgwi, 2015). On the other hand, in their study, Şahin and Bekir (2016) reported a more positive attitude toward disabled individuals among students enrolled in the Health Management Department. The dissimilarities observed in the literature may have resulted from differences in the students' courses and applications that might have had an influence on the forming of their attitudes.

## **CONCLUSION AND RECOMMENDATIONS**

Our study was mostly comprised of female students and students in the Physiotherapy and Rehabilitation Department. The research explored the attitudes of students toward the disabled and revealed that the students had a positive attitude but attitudes were better among females, students in the Child Development Department, and in the upper classes. These results point to the fact that taking courses on the disabled and actually working with these individuals were important factors in improving attitudes. On the other hand, it was also found that, out of the participants, all of whom were enrolled in the Faculty of Health Sciences, the attitude scores of the students in the Physiotherapy and Rehabilitation Department were the lowest. Consequently, there is a need for more research to detect where the problem lies in this group of students whose specialization is specifically working with disabled individuals. Adjustments in the curriculum might be considered. Seminars, conferences and community service practices might also be useful in developing student awareness about the disabled. These methods might also be beneficial in terms of improving the attitudes of



groups such as males in the population who have been found to harbor negative attitudes toward the disabled.

## ADDITIONAL INFORMATION

This study conducted under the sponsorship of the Turkish Ministry of Family and Social Policies within the scope of the "Program for Supporting the Disabled" titled "The Butterfly effect: Add a touch of your own," was aimed to improve the attitudes toward the disabled of Faculty of Health Sciences students who have a high potential of working with the disabled after graduation.

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## Uzun Öz

Engellilik; bireyin, vücut yapısında veya işlevinde sorunlar, bir görev veya eylemin yürütülmesinde ve yaşam koşullarına katılmasında karşılaştığı güçlükler olarak tanımlanır. Bu nedenle, engellilik sadece bir sağlık sorunu değil, engelli birey ile toplumun özellikleri arasındaki etkileşimi yansıtan karmaşık bir olgudur. Dünya nüfusunun yaklaşık %15'inin bir tür engellilik ile yaşadığı tahmin edilirken, bu oran yaşlanan nüfus ve artan kronik hastalıklar nedeniyle yükselmektedir. Toplumda belli bir gruba yönelik tutum değiştirmek istenirse öncelikle durumun ne olduğunun ortaya konması gereklidir. Bu nedenle gelecekte sağlık çalışanı olarak engellilere hizmet verecek, Sağlık Bilimleri Fakültesi öğrencilerinin tutumlarını belirlemek ve olumsuz tutumları değiştirmek için önlemler almak önemlidir. Bu araştırma, üniversite öğrencilerinin engellilere yönelik tutumlarını incelemek amacıyla tanımlayıcı tipte yapıldı. Kırıkkale Üniversitesi Sağlık Bilimleri Fakültesinde 2015-2016 akademik yılında öğrenim gören tüm öğrencilere, araştırma hakkında açıklama yapıldıktan sonra, araştırmaya katılmayı kabul edenlere veri toplama formları dağıtıldı ve sınıf ortamında, 15-20 dakikalık sürelerde doldurulması tamamlandı. Araştırmada öğrencilerin engellilere yönelik tutumları bağımlı değişken, öğrencilerin cinsiyetleri, bölüm ve sınıfları da bağımsız değişkenlerdir. Veri toplama formları, araştırmacılar tarafından hazırlanmış olan bir "Soru Kağıdı" ve Kaner ve arkadaşları tarafından geliştirilmiş olan "Özürlülere yönelik tutum ölçeği" (ÖYTÖ) kullanıldı. ÖYTÖ, toplumun engellilere yönelik tutumlarını belirlemek amacıyla geliştirilmiş 43 sorudan oluşan beşli likert türü bir ölçektir. Ölçek, Eğitim Ortamı, Kişilerarası İlişkiler, Çalışma Yaşamı, Aile Yaşamı, Kişisel Özellikler, Yetkinlik-Bağımsız Yaşam alt boyutlarından oluşmaktadır. Araştırma grubuna dahil edilen öğrencilerin %75.90'ı (688) kız, % 24.10'u (218) erkektir. %8.50'si Beslenme ve Diyetetik, %17.90'u Çocuk Gelişimi, %24.40'ı Fizyoterapi ve Rehabilitasyon, %28.60'ı Hemşirelik ve %20.60'ı Sağlık Yönetimi bölümü öğrencisiydi. Öğrencilerin cinsiyetine göre ölçek puanlarına bakıldığında; ÖYTÖ'nin tüm alt boyutlarında erkek öğrencilerin sıra ortalamalarının kız öğrencilerin sıra ortalamalarından daha düşük olduğu görüldü. Cinsiyetin, ÖYTÖ'nin tüm (eğitim ortamı, kişilerarası ilişkiler, çalışma yaşamı, aile yaşamı, kişisel özellikler, yetkinlik-bağımsız yaşam) alt boyutları ile toplamdan alınan puanlar arasında istatistiksel açıdan anlamlı farklılık yarattığı (p<0.01) belirlendi. Öğrencilerin devam ettiği sınıfa göre ölçek puanları incelendiğinde; Öğrencilerin devam ettikleri sınıfın ÖYTÖ'nin eğitim ortamı ( $\chi^2 = 7.439$ , p>.05), kişisel özellikler ( $\chi^2 = 2.662$ , p>.05) ve yetkinlik-bağımsız yaşam ( $\chi^2 = 7.463$ , p>.05) alt boyutlarına ait sıra ortalamaları arasında anlamlı bir farklılık yaratmadığı görülürken, kişiler arası ilişkiler ( $\chi^2 = 11.579$ , p<.05), çalışma yaşamı ( $\chi^2 = 15.525$ , p<.05), aile yaşamı ( $\chi^2 = 10.645$ , p<.05) ve toplam tutum ( $\chi^2 = 10.992$ , p<.05) sıra ortalamaları arasında fark anlamlıdır. Farklılığın hangi gruplardan kaynaklandığını belirlemek amacıyla yapılan Bonferroni düzeltilmeli Mann-Whitney U Testi sonucunda çalışma yaşamı ve toplam tutum puanlarında farklılığın 1. 4. sınıflar ile 2. ve 3.sınıflar arasında, kişilerarası ilişkiler boyutunda 1. ve 2.sınıflar arasında, aile yaşamı boyutunda ise 2.sınıflar ile 3.ve 4.sınıflar arasında olduğu (p<0.05) saptandı. öğrencilerin

devam ettikleri bölüme göre ÖYTÖ'nin aile yaşamı ( $\chi^2=8.781$ ,  $p>.05$ ) alt boyutunda anlamlı bir farklılık olmadığı görülürken, eğitim ortamı ( $\chi^2=73.187$ ,  $p<.05$ ), kişilerarası ilişkiler ( $\chi^2=40.864$ ,  $p<.05$ ), çalışma yaşamı ( $\chi^2=55.418$ ,  $p<.05$ ), kişisel özellikler ( $\chi^2=27.971$ ,  $p<.05$ ), yetkinlik-bağımsız yaşam ( $\chi^2=24.320$ ,  $p<.05$ ) boyutları ile toplam tutum ( $\chi^2=49.150$ ,  $p<.05$ ) sıra ortalamaları arasında anlamlı farklılık bulundu. Farklılığın hangi gruplardan kaynaklandığını belirlemek amacıyla yapılan Bonferroni düzeltmeli Mann-Whitney U Testi sonucunda eğitim ortamı, kişilerarası ilişkiler, çalışma yaşamı, kişisel özellikler, yetkinlik-bağımsız yaşam boyutları ve toplam tutum puanlarında farklılığı Çocuk Gelişimi ile Fizyoterapi ve Rehabilitasyon bölümüne devam eden öğrencilerin sıra ortalamalarının oluşturduğu belirlendi. Çocuk Gelişimi bölümüne devam eden öğrencilerin sıra ortalamaları diğer bölümlere devam eden öğrencilerin sıra ortalamalarından daha yüksektir. Araştırmada, öğrencilerin engellilere yönelik tutumlarının orta düzeyde olduğu söylenebilir. Bu bulgu literatür ile de uyumludur. Cinsiyete göre ÖYTÖ puanları incelendiğinde, kız öğrencilerin engellilere yönelik tutumlarının, erkek öğrencilerden daha iyi olduğu görüldü. Gedik ve Toker'in üniversite öğrencileri ile yaptıkları çalışmada, kızların engellilere yönelik tutumlarının erkeklere göre daha olumlu olduğu bulundu. Culp ve arkadaşları da üniversite öğrencilerinden kızların erkeklere göre daha çok pozitif tutum sergilediklerini tespit etmişlerdir. Literatürde benzer sonuçları elde eden başka çalışmalarda vardır. Symons ve arkadaşlarının çalışmasına, katılan erkek öğrenciler, engelliler için üzülüklerini ve engellilerin özel tedavilere gereksinimleri olduklarını ifade etmişlerdir. Araştırmada, öğrencilerin devam ettikleri sınıfa göre ÖYTÖ puanları, kişilerarası ilişkiler, çalışma yaşamı, aile yaşamı boyutlarında ve toplam ölçek puanında, büyük sınıflarda anlamlı düzeyde yüksek çıktı. Literatürde öğrencilerin eğitim aldıkça ve engelliler ile çalışma deneyimleri arttıkça engellilere yönelik tutumlarının olumlu yönde arttığını gösteren çalışmalar vardır. Eğitim görülen bölüme göre ÖYTÖ puanları incelendiğinde; eğitim ortamı, kişilerarası ilişkiler, çalışma yaşamı, kişisel özellikler ve yetkinlik-bağımsız yaşam alt boyutlarının ve ölçek toplam puanının Çocuk Gelişimi bölümünde anlamlı düzeyde yüksek olduğu tespit edildi. Fizyoterapi ve Rehabilitasyon bölümü ise tüm alt boyutlarda en düşük puanı aldı. Wozencroft ve arkadaşlarının çalışmasında, öğrencilere, hem eğitim aldıkları hem de engelliler ile doğrudan çalıştıkları bir ders verilmiştir. Ders bitiminde ve 3 ay sonrasında öğrencilerin engellilere yönelik tutumlarında anlamlı düzeyde artış tespit edilmiştir. Bu araştırmada, müfredatlarında engellilere yönelik dersleri olan (Özel Eğitim, Engelli Hakları, Dil-Konuşma Bozuklukları, Özel Alan Uygulamaları vb) ve uygulamada engelli çocuklarla çalışan (Otistik Çocuklar Merkezi vb) Çocuk Gelişimi bölümü öğrencilerinin ölçek puanları en yüksek iken, Fizyoterapi ve Rehabilitasyon bölümü öğrencilerinin puanlarının en düşük çıkması düşündürücüdür. Bu bulgu araştırma kapsamında Fizyoterapi ve Rehabilitasyon bölümü öğrencilerinin çoğunun birinci ve ikinci sınıf öğrencileri olması ve o bölümün müfredat gereği hastalarla son sınıfta intörlük eğitimleri sırasında karşılaşmalarının bir sonucu olabileceği gibi, sürekli engelli bireylerle çalışmaya bağlı duyarsızlaşma durumu da söz konusu olabilir. Nijerya'da Fizyoterapi ve Rehabilitasyon bölümü öğrencileri ile yapılan bir çalışmada, engellilere yönelik olumlu tutum olmasına rağmen, engelli bireylerin algılanan duygusal kapasiteleri ile ilgili damgalayıcı eğilimler gözlenmiştir. Şahin ve Bekir'in çalışmasında ise, bu araştırmadan farklı olarak Sağlık Yönetimi bölümü öğrencilerinin engellilere yönelik tutumlarının daha iyi olduğu bulunmuştur. Literatürdeki bu farklılıklar, öğrencilerin engellilere yönelik tutumlarını etkileyebilecek ders ve uygulamaların müfredatlarındaki farklılıklardan kaynaklı olabilir. Öğrencilerin engellilere yönelik tutumlarının incelendiği bu araştırmada; öğrencilerin tutumlarının olumlu yönde olduğu, kız öğrencilerin, Çocuk Gelişimi bölümü öğrencilerinin ve büyük sınıflardaki öğrencilerin, engellilere yönelik tutumları daha iyidir. Bu sonuçlar; engelliler ile ilgili eğitim alma ve engelliler ile çalışmanın, olumlu tutumlar geliştirmede önemli olduğunu vurgular niteliktedir. Ancak, tamamı Sağlık Bilimleri Fakültesi öğrencisi olan katılımcılardan, Fizyoterapi ve Rehabilitasyon bölümü öğrencilerinin tutum puanları diğer bölüm öğrencilerinden düşük olarak tespit edilmiştir. Dolayısıyla çalışma alanları doğrudan engelli bireyler olan bu bölüm öğrencilerinde sorunun nereden kaynaklandığının belirlenmesi açısından ileri çalışmalar yapılmasına gereksinim bulunmaktadır. Ayrıca müfredatta bazı düzenlemelerin yapılması da düşünülebilir. Seminer, konferans ve topluma hizmet uygulamaları ile öğrencilerin engellilere yönelik farkındalıkları sağlanabilir. Bu yolla, erkek olmak gibi engellilere yönelik olumsuz tutumları olan grupların da tutumlarının iyileştirilmesi desteklenmiş olur.