



## ANALYSIS OF THE ATTITUDES AND APPROACHES OF THE PHYSIOTHERAPY AND REHABILITATION STUDENTS TOWARDS THE ELDERLY

### ABSTRACT

**Introduction:** Turkey is the second most rapidly aging country in the world which requires reconsideration of planning and healthcare services related to the health state of the older people. For qualified healthcare services, positive attitudes and behaviours of health professionals (physicians, nurses, physiotherapists etc.) towards older people beginning from the undergraduate period carry utmost importance. The aim of this study was to determine the attitudes and behaviour of physiotherapy students training in different regions of Turkey towards older people.

**Materials and Method:** Attitudes and behaviour of 1270 students towards older people were evaluated using the Turkish version of the UCLA-GA scale.

**Results:** Mean UCLA-GA score was  $48.18 \pm 5.67$ . Female students demonstrated a more positive attitude and behaviour towards older people than male students. Positive attitude and behaviours towards older people were stronger in students who were living with an older individual, in those who wanted to live with his/her older relative/intimate, who visited nursing homes, who wanted to work in the field of geriatrics after they graduate, and in those who attended courses or any meeting organised during their training period.

**Conclusion:** The attitudes and behaviour of physiotherapy students towards older people can change dependent on various factors including gender of the students, whether they want to work in the field of geriatric rehabilitation during their postgraduate period, have attended training, course or meetings during their undergraduate education, visited nursing homes, or want to live with an old individual.

**Key Words:** Aging; Aged; Attitude; Student



## FİZYOTERAPİ VE REHABİLİTASYON ÖĞRENCİLERİNİN YAŞLILARA YÖNELİK YAKLAŞIMLARI VE TUTUMLARININ ANALİZİ

### Öz

**Giriş:** Türkiye, yaşlı insanların sağlık durumu ile ilgili planlama ve sağlık hizmetleri yeniden gözden geçirilmesini gerektiren dünyanın ikinci en hızlı yaşlanan ülkesidir. Kaliteli sağlık hizmetleri için, sağlık çalışanlarının (doktor, hemşire, fizyoterapist vb.) yaşlı insanlara yönelik mezuniyet öncesi dönemden başlayan pozitif tutum ve davranışları büyük önem taşımaktadır. Bu çalışmanın amacı Türkiye'nin farklı bölgelerinde eğitim gören fizyoterapi öğrencilerinin yaşlılara yönelik tutum ve davranışlarının belirlenmesidir.

**Gereç ve Yöntem:** 1270 öğrencinin yaşlılara yönelik tutum ve davranışları UCLA-GA skalasının Türkçe versiyonu kullanılarak değerlendirildi.

**Bulgular:** Ortalama UCLA-GA skoru  $48.18 \pm 5.67$  idi. Kadın öğrencilerin, erkek öğrencilere göre yaşlılara yönelik daha fazla pozitif tutum ve davranış içinde oldukları gösterildi. Yaşlılara yönelik pozitif tutum ve davranışlar, yaşlı bir birey ile yaşayan, yaşlı bir akraba/yakını ile yaşamak isteyen, huzurevini ziyaret eden, mezuniyet sonrası geriatik alanda çalışmak isteyen ve eğitim dönemi boyunca düzenlenen herhangi bir toplantı veya kurslara katılan öğrencilerde daha güçlüdür.

**Sonuç:** Fizyoterapi öğrencilerinin yaşlılara yönelik tutum ve davranışları, mezuniyet sonrası dönemleri boyunca geriatik rehabilitasyon alanında çalışmayı isteyip istememesi, lisans eğitimleri boyunca eğitim, kurs veya toplantılara katılıp katılmamaları, huzurevlerini ziyaret edip etmedikleri veya yaşlı birey ile yaşamayı isteyip istememeleri, öğrencilerin cinsiyeti gibi çeşitli faktörlere bağlı olarak değişebilir.

**Anahtar Sözcükler:** Yaşlanma; Yaşlı; Tutum; Fizyoterapi Öğrencisi

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Received: 31/01/2017  
Accepted: 24/03/2017

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## INTRODUCTION

In the whole world, people are living longer, birth rates are decreasing and the number of old people is gradually increasing (1). Aging of the Turkish population is one of the predominant and the most important demographic issues of the 21<sup>st</sup> century. According to official reports of the Statistic Institute of Turkey (2015) (2) the ratio of the population aged  $\geq 65$  years to the total population of Turkey has changed considerably (10.2% in 2023 with 20.8 and 27.7% expected in the years 2050 and 2075, respectively) (1,2). When seven different geographic regions of Turkey were evaluated, people aged  $\geq 65$  years were found to form a larger part of the population (12.01% in the Black Sea Region (2).

Globally, rapid increase in the relative percentage of older people requires reconsideration of planning directed at betterment of health state of elderly both in Turkey and every country. The achievement of successful planning and its implementation at a national level requires the perception of the elderly by healthcare professionals and even by the community as a whole and their expectations from older people to be determined (2). Indeed, misbeliefs and wrong attitudes towards ageing decrease the effectiveness and quality of healthcare services related to the elderly (3-4). As is the case in the rest of the world, for the older population to lead a comparatively independent, qualified and participating life, geriatric physiotherapy and rehabilitation services should be developed (5). This changing and increasing elderly population profile also leads to increasing requirements for physiotherapists who will work in this field and provide healthcare services.

Within the last 3 years the number of physiotherapy and rehabilitation schools that provide undergraduate education has increased by nearly 40% and now amounts to 56 schools throughout the country (6). When we consider the similar increases in the number of schools providing undergraduate education and in the elderly population, geriatric physiotherapy will more frequently and with increasing importance become the preferred field of work for graduate students across the country. Since negative/positive attitude and behaviours of physiotherapy students towards

older people can effect the quality of healthcare services, perceptions, and attitudes of the students carry importance (7). In some studies, investigating the attitudes and behaviour of physiotherapy students towards the elderly, the authors determined that compared with students of other health sciences, physiotherapy students displayed more favourable attitudes (8,9). As clinical instructors are thought to play important roles in physiotherapy training in particular, positive attitudes towards the elderly should be promoted and encouraged in these students (10). Various studies have demonstrated that students tend to display more positive attitudes under the favourable influence of their training (10,11).

In Turkey, studies evaluating the attitudes and behaviour of students being educated in the faculties of health science have focused more frequently on students of nursing and medical faculties (1). However, the opinions and points of view of physiotherapy and rehabilitation students across our country have not been identified in any study yet. This study was planned to determine the attitudes and behaviour of physiotherapy students being educated in seven different regions of Turkey, whose population is the fastest ageing one in the world after that of South Korea.

## MATERIALS AND METHOD

### Design and Sample

This study, which had a cross-sectional design, was performed in a sample consisting of 1270 students in the physiotherapy and rehabilitation departments (first to fourth grades) of schools situated in seven different regions (Aegean, Marmara, Central Anatolia, Mediterranean, Eastern Anatolia, Southeastern Anatolia Regions) of Turkey in the school year 2014–2015.

### Ethical Considerations

Written permission was obtained from the administrations of all schools where questionnaire surveys were held. Signed informed consent was obtained from all students. The ethics committee of university approved the study, which was conducted according to the Declaration of Helsinki.



## Data Collection Method and Instruments

### Student Information Form

Familial characteristics of the physiotherapy students are evaluated. The questionnaire contained eight questions relating to students' long-term residence, their current way of living, the presence of an elderly relative in the same home, their desire to work in the field of geriatric rehabilitation during their postgraduate period, his/her attendance of any course, seminar or meeting, and whether he/she visited a nursing home or lived with an old person.

### The University of California Los Angeles Geriatrics Attitude (UCLA-GA) Scale

UCLA-GA scale (12) was used to determine their attitudes and behaviour towards older people; it was validated and reliability studies for the Turkish population were done by Sahin et al. (13). The items of the scale were assessed on a 5-point Likert type scale with the options "strongly disagree", "somewhat disagree", "somewhat neutral", "agree", "strongly agree". Participants gave 5 points if they strongly agreed with the sentences of positive attitude toward the elderly, 4 points if they agreed, 3 points if they were somewhat neutral, 2 points if they somewhat disagreed and 1 point if they strongly disagreed. Sentences of negative attitude were scored with 1 point if they strongly agreed, 2 points if they agreed, 3 points if they were somewhat neutral, 4 points if they somewhat disagreed and 5 points if they strongly disagreed in the reverse order of the above-mentioned. The titles and minimum/maximum scores of the four subscales were as follows: social values (min: 2, max: 10), medical care (min: 4, max: 20), compassion (min: 4, max: 20), resource distribution (min: 4, max: 20). The total attitude score was comprised of a composition of these four scales. The minimum score was 14, while the maximum score was 70; the higher the score, the more positive their attitude was (13).

## Data Analysis

The SPSS 22.0 (SPSS Inc. Chicago, IL, USA) programme was used for a statistical analysis of the data. Demographic data obtained from seven different regions of Turkey and measured parameters were evaluated using descriptive analyses and expressed as mean  $\pm$  standard deviation, median, frequency, percentage, minimum and maximum. UCLA-GA scores of all cases and categorical independent variables were compared using Student's t-test.  $p < 0.05$  was considered statistically significant.

## RESULTS

Data were acquired from 1270 physiotherapy students aged 17–29 years, with a mean age of  $20.93 \pm 1.70$  years. 29.4% of the students were in 3<sup>rd</sup> grade and 57% of them were female. Descriptive characteristics of the physiotherapy students are given in Table 1.

Familial characteristics of the physiotherapy students revealed that 95.5% of them were living in cities and 84.6% of them were members of core families. 38.4% of the students were living in hostels away from their families. 86.6% of the students were not living with an older person, while 63.4% of them indicated that they wanted to live with an older relative or intimate. 84.2% of the physiotherapy students did not attend any course, seminar or meeting during their training period, while 55.7% of them indicated their desire to work in the field of geriatrics. 52.6% of the students stated that they had not visited a nursing home before or during their training period (Table 2).

The mean UCLA-GA score of the schools in all regions was  $48.18 \pm 5.67$  (min: 26, max: 68) Mean subscale scores were as follows: social values:  $6.37 \pm 1.54$ , medical care:  $11.28 \pm 2.58$ , compassion:  $15.88 \pm 2.70$ , resource distribution:  $14.64 \pm 2.35$ . The maximum UCLA-GA score was obtained by the students educated in the Central Anatolia Region (Table 3).

When the relationship between UCLA-GA score and gender of the students was analysed female students were determined to have a more positive attitude and behaviour towards older people ( $t = -1.983, p < 0.05$ ). Positive attitudes and behaviour towards older people were stronger in students who were living with an older individual ( $t = 2.864, p < 0.05$ ), who

wanted to live with his/her older relative/intimate ( $t = 11.430, p < 0.05$ ), who visited nursing homes ( $t = 2.467, p < 0.05$ ), who wanted to work in the field of geriatrics after they graduated ( $t = 7.588, p < 0.05$ ), and in those who attended courses or any meeting organized during their training period ( $t = 2.004, p < 0.05$ ) (Table 4).

**Table 1.** Descriptive Characteristics of the Physiotherapy Students (n=1270).

<b>Descriptive Characteristics</b>	
	<b>X ± Sd</b>
Age (year)	20.93±1.70
Height (cm)	170.35±8.58
Body weight (kg)	65.05±12.64
Body Mass Index (kg/cm <sup>2</sup> )	22.25±3.03
	<b>n (%)</b>
<b>Gender</b>	
Male	544 (%43.0)
Female	726 (%57.0)
<b>School of Physiotherapy region</b>	
Aegean Region	234 (%18.4)
Central Anatolia Region	240 (%19.0)
Mediterranean Region	188 (%14.9)
Black Sea Region	90 (%7.1)
Eastern Anatolia Region	156 (%12.3)
Southeastern Anatolia Region	193 (%15.1)
Marmara Region	169 (%13.3)
<b>Year at school</b>	
1 <sup>st</sup> year	362 (%28.5)
2 <sup>nd</sup> year	315 (%24.8)
3 <sup>rd</sup> year	374 (%29.4)
4 <sup>th</sup> year	219 (%17.2)



**Table 2.** Family Characteristics of the Physiotherapy Students (n=1270).

<b>Family Characteristics</b>	<b>n (%)</b>
<b>Living place</b>	
City	1213 (95.5)
Town	19 (1.5)
Village	38 (3.0)
<b>Family type</b>	
Core family	1074 (84.6)
Large family	171 (13.4)
Divorced family	25 (2.0)
<b>Present state of living</b>	
With his/her family	245 (19.4)
With his//her friends	433 (34.1)
With her relatives	18 (1.4)
In a hostel, away from family	488 (38.4)
Lonely	86 (6.7)
<b>Are you living with an older person?</b>	
Yes	170 (13.4)
No	1100 (86.6)
<b>Do you want to live with your older relative/intimate?</b>	
Yes	806 (63.4)
No	464 (36.6)
<b>Do you want to study in the field of geriatrics after you graduate?</b>	
Yes	708 (55.7)
No	562 (44.3)
<b>During your training in the field of geriatric rehabilitation, have you ever attended any course, seminar or meeting?</b>	
Yes	210 (15.8)
No	1070 (84.2)
<b>Have you ever visited a nursing home?</b>	
Yes	602 (47.4)
No	668 (52.6)

**Table 3.** Mean Scores Obtained from The UCLA-GA Scale and Its Subscales by Physiotherapy Students Studying in Different Regions in Turkey.

UCLA-GA scores	Aegean Region X ± Sd	Central Anatolia Region X ± Sd	Mediterranean Region X ± Sd	Black Sea Region X ± Sd	Eastern Anatolia Region X ± Sd	Southeast Anatolia Region X ± Sd	Marmara Region X ± Sd	Total region X ± Sd
<b>Social values</b>	6.34±1.49	6.48±1.43	6.54±1.52	6.48±1.67	6.33±1.55	6.38±1.70	6.01±1.45	6.37±1.54
<b>Medical care</b>	10.99±2.41	11.17±2.32	11.17±2.62	11.13±2.95	11.48±2.70	11.66±2.94	11.41±2.28	11.28±2.58
<b>Compassion</b>	15.97±2.29	16.56±2.26	16.09±2.58	15.50±2.64	15.76±3.09	15.47±3.38	15.35±2.52	15.88±2.70
<b>Resource distribution</b>	14.40±2.38	15.23±1.95	14.85±2.55	14.78±2.41	14.83±2.18	14.09±2.64	14.27±2.13	14.64±2.35
<b>Total score</b>	47.71±5.44	49.45±4.87	48.67±5.77	47.91±6.33	48.41±5.25	47.61±6.90	47.05±5.01	48.18±5.67

## DISCUSSION

Beliefs and attitudes towards older people and old age change from culture to culture. Some communities describe old age with negative characteristics such as useless and feeble; however, some communities respect old people, and benefit from their knowledge and experience. Besides, in these communities older people have a higher social status (14). Showing respect to the elderly is an important merit of the Turkish culture. Living together with older people, sharing the same home, status of the elderly in the family, knowledge and experience of the elderly have a great impact on the development of this culture. However, rapid and multifaceted changes in the familial structure of our country lead to dynamic individuals and young adults being favoured in business life. Thus, the elderly are pushed to the background and some of our cultural values change (15).

The changing and increasing elderly population profile also increases the requirement for physiotherapists in particular (5). When we

consider parallel increases in the number of schools providing undergraduate education in the field of physiotherapy and rehabilitation and in the number of elderly in the population, geriatric physiotherapy is expected to provide more working opportunities for physiotherapy students (6,11). In our study, positive attitudes towards old people of physiotherapy students training in different regions of Turkey have been determined. The highest positive attitude score was observed in students trained in the Central Anatolia Region (Table 3). This outcome suggests that compared to other regions of Turkey, families living in the Central Anatolia Region have a large familial structure (family type in which parents of the head of the family or his spouse live together with the rest of the family) which includes a comparatively larger number of old family members.

Prejudice and negative opinions of physiotherapy students towards the elderly also adversely affect their desire to treat old people (8,9). When the desire of students to specialise in the field of geriatric physiotherapy and their long-term practice in this



field are considered, their attitudes and behaviour towards the elderly gain the utmost importance. In our study, the factors affecting the UCLA-GA scores most were students' desire to study in the field of geriatric rehabilitation during their postgraduate period, their attendance of a training session, course or meeting in the field of geriatric rehabilitation during their undergraduate education and their more affirmative attitude towards the elderly. This outcome is important because it demonstrates the necessity of concentrating heavily on training programmes and encouraging the students to attend seminars and courses in order to make them change their negative attitudes and behaviour towards the elderly. In the literature some negative and positive factors

determining students' desire to work with elderly people have been cited. Among them, "expectation and perception of the family" affect the students' decisions on this issue adversely, while age of the student, his/her relationship with an old person (both in their work and in their social environment), nor his/her attendance of geriatric training sessions and courses had any effect on the student's attitude and behaviour towards the elderly (7,8).

It has been reported that in some studies, the male and female students doing their degree in various fields of health (medicine, nursing, pharmacy, health technician) had no different (16-18) attitude and behavior, which depends on gender while other studies showed difference (19-22).

**Table 4.** UCLA-GA Score and Its Relation with Family Characteristics (n=1270).

Family characteristics	n	X ± Sd	t	p
<b>Sex</b>				
Male	544	47.84±5.92	-1.983	0.04
Female	726	48.47±5.45		
<b>Are you living with an elder person?</b>				
Yes	170	49.35±6.19	2.864	0.004
No	1100	48.02±5.56		
<b>Do you want to study in the field of geriatrics after you graduate?</b>				
Yes	708	49.25±5.42	7.588	0.000
No	562	46.87±5.68		
<b>Have you ever visited a nursing home</b>				
Yes	602	48.61±5.76	2.467	0.014
No	668	47.83±5.55		
<b>During your training in the field of geriatric rehabilitation, have you ever attended any course, seminar or meeting?</b>				
Yes	210	48.91±5.75	2.004	0.040
No	1060	48.06±5.64		
<b>Do you want to live with your older relative/intimate?</b>				
Yes	806	49.51±5.25	11.430	0.000
No	464	45.92±5.64		



Soyuer et al. studied the relationship between the attitudes of 363 health technics students doing degree in 10 different programs of the Vocational School of Health Services towards ageism with several demographical variables. They revealed in their study that whereas the positive attitude scores of the male students regarding ageism were higher than those of the female ones, there existed no significant difference (16). Ucun et al. investigated the relationship between the subscale and total scores of the attitude towards ageism scale and gender, obtained by 485 university students attending various departments. They reported that male and female students had similar attitude towards the elderly, and that gender did not have a positive or negative effect on ageism (17). Ozcan et al. educated 142 third-year medicine faculty students on multidisciplinary approach towards the elderly. They reported that the students showed an increase in their mean scores of attitude towards the elderly scale, but a difference between the male and female students in terms of attitude scale score averages before and after the education did not exist (18).

Hweidi et al. found in their study in which they examined the attitude and behaviors of 250 nursing students towards the elderly via Kogan's Old People Scale that male nursing students had a more positive approach than female ones (19).

Wang et al. assessed 275 medicine and nursing students with Kogan's Attitudes Toward Older People Scale. They detected that female and younger nursing students showed a more positive attitude towards the elderly than male and older medicine students (20). Fitzgerald et al. evaluated the attitude of 171 medicine students towards the elderly with UCLA-GA Scale. They revealed that female medicine students had a more positive approach than male medicine students (21). Mandiracioglu et al. evaluated 277 second-year pharmacy students with the UCLA-GA Scale and reported that female pharmacy students had more positive attitude than male ones (22). As for our study, in which we assessed the attitude of more students than the literature toward the elderly, it was detected that

female students had more positive attitude than male students, similarly to several studies.

In Turkish culture men try to earn a living, while women assume the task of home care and also play a great role as a member of the family. Besides, women more frequently maintain and reinforce relationships with relatives and therefore women are more closely linked to their families (23). These roles in the family might have a more favourable impact on the attitudes and behaviour of female physiotherapy students towards the elderly. Therefore, inequalities in these traditional roles, which are internalised for female and male patients, should be relieved. Thus, during undergraduate education, the connection of male physiotherapy students with older people should be developed and they should be encouraged to serve their internship in the field of geriatrics. Besides, clinical instructors are important as role models in the physiotherapy education of male students during their internship. The attitudes and behaviour of these instructors towards older people can affect the opinions of the students (10). Instructors should therefore be encouraged to display more favourable attitudes and behaviour towards the elderly, and the relevant roles and responsibilities of healthcare professionals might even be registered in written protocols.

Nowadays, rapid changes in the socioeconomic structure of our country also induce changes in its cultural structure with important alterations in the functions and life style of the family. During this process, the position, significance and authority of the elder individual in the family have decreased (24). This phenomenon has relegated older people to nursing homes and the number of elderly living in nursing homes has increased. Apart from their undergraduate education, the number of visits by female and male students to nursing homes and elderly care centres should be increased and they should be encouraged on this issue in order to reinforce their relationships with older people. In our study we determined that visiting nursing homes by students was effective for developing their positive attitudes and behaviour towards the elderly. Since visits to care centres for the elderly improve their attitudes and behaviour, we think that raising





students' awareness by periodic visits starting from the first year of their undergraduate education will be effective in creating more favourable perceptions.

Gurses et al. have made a curriculum analysis in the physiotherapy and rehabilitation undergraduate programs of various universities in Turkey. The curriculum includes a compulsory professional ethics course. The courses of ethics are put together under the titles that are medicinal ethics, rehabilitation and ethical principles, psychosocial rehabilitation and ethics, rehabilitation and ethics, ethics in physiotherapy and similar various courses (6). An overview of the content of the professional ethics course will show that it includes subjects like multidisciplinary teamwork in physiotherapy and rehabilitation, ethics in medical sciences, ethical principles regarding healthcare professionals and patient relations, and patient rights (25). Nevertheless, it has been found out that the content of this course does not deal with issues like elderly rights, and how the attitude and behaviors towards the elderly should be. Besides, a course titled human rights is also included in the curriculum (6,25). Accordingly, we believe that physiotherapy and rehabilitation undergraduate students need to be informed about elderly rights and the attitude and behavior of healthcare professionals towards elderly patients more extensively within the curriculum of the professional ethics course, and educational programs should be developed within this scope.

In conclusion, attitudes and behaviour of physiotherapy students towards the elderly can vary according to many factors such as the gender of the elder individuals, living with an old family member, the desire to work in the field of geriatric rehabilitation after graduation, the desire to live with an old individual, the attendance of training sessions, courses and meetings in the field of geriatric rehabilitation during undergraduate education, and the number of visits to nursing homes and elderly care centres. Therefore, in order to be able to change prejudices, correcting the negative attitudes and behaviour of the physiotherapy students towards older people in the educational programmes should be emphasised in Turkey, which is the second fastest ageing country in the world. While integrating information related to old age and the ageing process, the participation of the students in seminars and courses should be supported. As role models, clinical instructors should be encouraged to display a more affirmative attitude towards old people and the relevant roles and responsibilities of healthcare professionals should be recorded in written protocols. Further conclusions are that the attendance of physiotherapy students to under- and postgraduate physiotherapy courses should be supported, specialisation in the field of elderly health should be encouraged, and the awareness of the students of the elderly should be raised by visiting nursing homes and elderly care centres.

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