



THE ATTITUDES OF MEDICAL STUDENTS TOWARD THE ELDERLY

ABSTRACT

Introduction: Health workers must be prepared for the changes and developments due to the ever-increasing proportion of elderly individuals within the general population. This study aimed to identify the general attitudes of students of the Faculty of Medicine of Celal Bayar University (CBU) toward senility and evaluate differences in the attitudes of students at different stages of medical education.

Materials and Method: This study was conducted between October and December 2014 and included a total of 406 students attending the Faculty of Medicine of the CBU. A questionnaire form composed of three sections was used to collect data.

Results: The age range of study participants was 18–27 years (average age, 21.04 years), 60.8% were females, and 91.4% had a nuclear family structure. When assessing overall UCLA scores according to the stage of medical education, the average scores of first-year students were found to be higher than other year groups. The results of the UCLA questionnaire demonstrated significantly higher overall scores concerning attitudes toward older persons in female students compared with male students. No significant differences in KOGAN questionnaire scores concerning attitudes toward older people were observed between male and female students.

Conclusion: The findings of the present study indicate that attitudes toward the elderly change negatively as students progress through medical education. In addition, female students had more positive attitudes toward elderly patients than male students. Considering the expectations from the healthcare providers of the elderly population, who are more fragile compared to normal individuals, it should be envisaged that the responsibilities of physicians have increased.

Key Words: Aged; Attitude; Student.

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TIP FAKÜLTESİ ÖĞRENCİLERİNİN YAŞLILARA KARŞI TUTUMLARI

Öz

Giriş: Sağlık çalışanları toplam nüfus içinde yaşlı popülasyon oranının giderek artmasından kaynaklanacak demografik değişikliklerin doğuracağı değişim ve gelişmelere hazırlıklı olmalıdır. Biz bu çalışmada Celal Bayar Üniversitesi Tıp Fakültesi öğrencilerinin yaşlılığa karşı genel tutumlarının belirlenmesi ve tıp eğitimi sürecinde tutum konusunda sınıflar arasındaki farklılıkları tespit etmeyi amaçladık.

Gereç ve Yöntem: Bu çalışma, Ekim–Aralık 2014 tarihleri arasında Celal Bayar Üniversitesi Tıp Fakültesinde okumakta olan 406 öğrenci üzerinde yürütülmüştür. Verilerin toplanmasında kullanılan anket formu üçbölümden oluşmaktadır. Birinci bölümde öğrencilerinin sosyodemografik özellikleri sorulmuş, ikinci bölümde KOGAN Yaşlılara Karşı Tutum Ölçeği Türkçe formu ve üçüncü bölümde UCLA Geriatrik Tutum Ölçeği Türkçe formu kullanılmıştır.

Bulgular: Çalışmaya katılan öğrencilerin yaşaralığı 18–27 olup (ortalama yaş=21.04), %60.8'i kız, %91.4'ünün ise çekirdek aile yapısına sahip olduğu görülmüştür. Sınıflara göre UCLA toplam puanları değerlendirildiğinde 1. sınıf öğrencilerinin ortalama puanlarının diğer sınıflara göre daha yüksek olduğu saptanmıştır. UCLA'ya göre yaşlılara karşı tutumda kadınlarda erkeklere göre anlamlı pozitif tutum saptanmıştır. KOGAN da ise cinsiyet açısından yaşlılara yönelik tutumda herhangi anlamlı bir fark saptanmamıştır.

Sonuç: Çalışmada öğrencilerin yaşlılara karşı tutumlarının sınıf ilerledikçe biraz daha olumsuz yönde değiştiği söylenebilir. Ayrıca kız öğrencilerin tutumlarının da daha olumlu olduğu görülmektedir. Normal bireylere nazaran görece incinebilir yapıda olan yaşlı popülasyonun sağlık personelinin beklentileri göz önüne alındığında, hekim sorumluluğunun da artmış olacağı öngörülmektedir.

Anahtar Sözcükler: Yaşlı; Tutum; Öğrenci.

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INTRODUCTION

The proportion of elderly individuals in the general population is constantly increasing in Turkey and worldwide. The proportion of individuals over 65 years of age in Turkey, which was 6.7% in 2005, reached 8.0% at the end of 2014, and according to population estimates, is expected to be 20.8% in 2050 (1). The ageing society must be considered a reality that currently makes itself felt, particularly, in the economy and the health sector, rather than a future phenomenon. Due to many reasons, elderly individuals demand relatively different and more positive attitudes from healthcare workers (2).

According to the literature, there are many factors that affect the attitudes of healthcare workers toward older individuals, including age, gender, ethnicity, living with elderly individuals, and geriatric education. The opinion of younger individuals toward elderly individuals, despite differing between societies, is generally relatively distant. In addition to the ageing population of Turkey, increased longevity has led to more frequent contact between health workers and older individuals. The proportion of inpatients aged 75 years or more was 16.6% in 2008 and increased to 21.8% in 2012, in Turkey (1). However, some studies have reported generally negative attitudes of health workers toward older individuals (3, 4). In addition to health workers, the attitudes of medical students toward older individuals are also important and have been assessed by a large number of studies (5-7). Some of these studies reported that medical students have a more negative attitude toward older individuals compared with the general population, whereas there have been other studies which reported neutral or more positive attitudes (8-10). Younger medical students have been reported to have more positive attitudes toward older individuals; however, other studies have reported converse findings (9,11).

The present study aimed to determine the general attitudes of students of the Faculty of Medicine of the Celal Bayar University toward elderly and evaluate the differences in attitudes of students at different stages of medical education, in terms of preparedness for the changes and developments resulting from the increased proportion of elderly individuals within the general population. Further, this study aimed to identify and address gaps in medical education curricula regarding attitudes toward elderly individuals.

MATERIALS AND METHOD

A descriptive study was conducted on students of the Faculty of Medicine of the Celal Bayar University between October and December 2014, in Manisa. A total of 965 students, of which 406 were contacted using an opportunistic sampling method, were included (the number of students per year of medical education starting from first-year to internship were 71, 70, 62, 73, 58, and 72, respectively). Data were collected through structured questionnaires conducted by face-to-face interview. Questionnaire forms used to collect data were composed of three sections. The first section investigated the socio-demographical characteristics of the students, the second section was the Turkish form of the KOGAN Attitudes Toward Old People Scale, and the third section was the Turkish form of the UCLA Geriatrics Attitudes Scale. The socio-demographical questionnaire form evaluated independent variables including age, gender, city of residence until 12 years of age, educational statuses of parents, family structure, presence of sisters and brothers, and income level.

Attitude Toward Old People Scale

The KOPS/KOGAN (Kogan Attitudes Toward Old People Scale) was developed by Kogan in 1961 to measure the attitudes of individuals toward older individuals. It is a 6-point likert-type scale that does not contain medical terminology. The scale contains 34 items, 17 being positive and 17 being negative. The first 17 items belong to the negative attitude sub-scale, while items 18-34 belong to the positive attitude sub-scale. High scores obtained in the positive attitude toward older individuals sub-scale and low scores obtained in the negative attitude sub-scale demonstrate positive attitude toward older individuals. KOGAN scale scores range from 34 to 204 (12). Turkish validity and reliability of KOGAN scale was conducted in 2011 by Kılıç D and Adibelli D (13).

UCLA Geriatrics Attitudes Scale

The UCLA Geriatrics Attitudes Scale (The University of California, Los Angeles Geriatrics Attitudes Scale) was developed by Reuben *et al.*, in 1998 to assess the attitudes of health workers toward older individuals. This questionnaire, which contains positive and negative questions, is a 5-point likert-type scale. A total of four aspects are assessed comprising social values, medical care, compassion, and resources distribution. UCLA Geriatrics Attitudes Scale scores range from 14 to 70. Increasing scores in the questionnaire indicate positive attitudes of health workers toward older individuals (14). Tur-



kish validity and reliability of UCLA scale was conducted in 2011 by Sahin S and her friends (15).

Using a written statement covering the purpose and scope of the study, a written permit from the Ethics Board of the Faculty of Medicine of the Celal Bayar University and the consent of all students participating in the study were obtained. Analysis of data was performed in SPSS 15.0 program. Data were evaluated using descriptive statistics (number, percentage distribution, average, standard deviation). Differences between independent groups were assessed using Student's *t*-test, one-dimensional variance analysis ANOVA, posthoc Tukey test and Pearson's correlation.

RESULTS

The age range of medical students included in the present study was 18–27 years (mean age, 21.04 years), 60.8% were females, and 91.4% had a nuclear family structure. Students whose mothers had received a 5-year education (which is the fundamental education in Turkey) comprised 74.1% of the total and students whose fathers had received a 5-year education comprised 84.7% of the total. Student income level was equal to expenditure in 68% of participants.

The mean total UCLA score of first-year students was higher than that of other year groups ($p < 0.001$, according to post-hoc Tukey test). A significant difference in the distribution of the KOGAN scores was observed between year groups, with higher overall scores observed in 2nd year students compared to 3rd year students ($p=0.013$, according to post-hoc Tukey test).

Female medical students had significantly higher UCLA questionnaire scores regarding attitude toward older individuals, compared to male students. No significant difference in the Attitudes Toward Old People Scale (KOGAN) regarding attitudes toward older individuals was observed with respect to gender.

In the present study, attitudes toward older individuals were found to be independent of students place of residence, family structure, income level, and parental educational status (Table 1).

In issues relating to the medical care sub-title of the UCLA geriatrics attitudes scale, a positive significant difference was detected in first-year medical student attitudes toward older persons ($p < 0.001$, according to post-hoc Tukey test; Table 2). When assessing the correlation between the UCLA sub-titles and KOGAN scores, an inverse correlation between scores from the medial and compassion sub-titles and KOGAN

total scores was observed ($r=-0.21$; $p < 0.001$, $p=0.014$ respectively).

DISCUSSION

Previous studies have reported a decrease in the positive attitude of medical faculty students toward older persons concerning health related issues as they progress through medical education. This study aimed to assess differences in general and health-related attitudes of medical students toward older persons as they progress through medical education.

In the KOGAN questionnaire measuring the attitudes of the society toward older people, the total scores of the 2nd year students were found to be higher than the total scores of 3rd year students. This finding may indicate that students in pre-clinic classes reflect the attitudes of society toward older people. According to the KOGAN questionnaire, a decrease in the positive attitude of students was observed from the 4th year of medical education onwards. In the medical issues sub-title of the UCLA questionnaire used to assess the attitude of medical faculty students toward older people, a significant positive attitude was found in 1st and 2nd year students. This finding corroborates the results of previous studies demonstrating a decrease in positive attitude toward older people with progression through medical education (5, 6, 16). In the study by RB Sheikh *et al.*, in which the KOGAN questionnaire was given to 1st, 5th, and 6th year medical faculty students, a significant decrease in positive attitude toward older people was identified with progression through medical education. This result was found to be associated with limited knowledge of first year students concerning the care of elderly individuals (11). When the results of the present study are considered, the observed decrease in KOGAN scores with progressing years of the medical education may reflect the values of society toward older people and indicate that inadequate importance is given to attitudes toward older people in medical education curricula. However, in the present study, no socio-demographical features were identified that could explain the significant differences in total scores observed between medical student year groups, using the two questionnaires.

The study by RB Sheikh *et al.*, stated that female students have more negative attitudes toward older people compared to males and posited that this findings may be due to Middle Eastern and South-east Asian women being predominantly responsible for the care of the elderly individuals at home (11). However, in the present study, the attitudes of female



Table 1— Distribution of Students' Total Score of the Scale Measuring Attitudes Toward the Elderly, According to Their Socio-demographic Characteristics

Feature	n	%	Mean (sd)	p	Mean (sd)	p
Class						
Class 1 ^a	71	17.5	41.91 (2.90)	< 0.001*	150.60 (21.23)	0.013**
Class 2 ^b	70	17.2	39.67 (3.52)		158.88 (21.68)	
Class 3 ^c	62	15.3	39.80 (2.97)		145.17 (21.79)	
Class 4 ^d	73	18.0	40.10 (3.37)		152.12 (22.02)	
Class 5 ^e	58	14.3	40.62 (3.64)		150.74 (19.86)	
Class 6 ^f	72	17.7	39.45 (3.35)		149.19 (22.18)	
Gender						
Female	247	60.8	40.64 (3.15)	0.004	152.60 (21.24)	0.118
Male	159	39.2	39.66 (3.63)		149.13 (22.48)	
Current life						
With family	177	42.1	40.23 (3.39)	0.194	151.84 (21.55)	0.791
In dormitory	52	12.8	41.13 (2.93)		150.30 (20.39)	
With friend	127	31.3	39.92 (3.29)		150.01 (22.15)	
Alone	50	12.3	40.28 (3.86)		153.22 (23.39)	
Family structure						
Core	371	91.4	40.28 (3.39)	0.671	151.05 (22.04)	0.892
Extended	30	7.4	39.86 (3.29)		153.16 (18.58)	
Other	5	1.2	40.60 (2.70)		154.00 (23.46)	
Income level						
Income equal to expenditures	276	68.0	40.29 (3.17)	0.931	151.03 (21.17)	0.906
Income less than expenditures	51	12.6	40.09 (4.01)		152.50 (19.59)	
Income more than expenditures	79	19.5	40.25 (3.64)		151.16 (25.19)	
Mother's educational status						
Primary school or less	105	25.8	40.07 (3.17)	0.516	151.92 (21.92)	0.712
Secondary school or more	301	74.2	40.32 (3.44)		151.01 (22.10)	
Father's educational status						
Primary school or less	62	15.3	40.38 (3.29)	0.750	152.98 (22.80)	0.496
Secondary school or more	344	84.7	40.23 (3.39)		150.93 (21.61)	

*Posthoc Tukey's: a > b = c = d = e = f

**Posthoc Tukey's: b > c = a = d = e = f

students toward older people were found to be more positive than that of male students, with a very small difference in total UCLA points observed between genders. In the two previous studies conducted in Turkey, no significant difference in attitudes toward older people with respect to gender was observed (5, 14). This discrepancy between Turkish students and students of the Middle East and South-east Asia, which have cultural similarities such as living together with the elderly, is striking. Although there are previous studies that

corroborate these findings, there are also studies in which no differences with respect to gender were observed (5,6,10,17,18).

When the results of the UCLA questionnaire are examined in detail with respect to gender, it was found that the significant difference in positive attitude toward older people is related particularly to questions in the sub-title covering medical issues. However, it is noteworthy that there was a decrease in the positive attitude in medical issues toward older



Table 2— Distribution of Scores Taken By Students According to the Dimensions of UCLA Geriatric Attitude Scale

Features	n	%	Mean (sd)	p	Mean (sd)	p	Mean (sd)	p	Mean (sd)	p
Class										
Class 1 ^a	71	17.5	5.20±1.34	0.874	13.84±1.88	< 0.001*	12.11±1.17	0.682	10.69±1.84	0.183
Class 2 ^b	70	17.2	5.10±1.21		12.47±2.15		11.82±1.36		10.27±1.95	
Class 3 ^c	62	15.3	5.12±1.09		12.01±2.27		11.91±1.45		10.74±1.76	
Class 4 ^d	73	18.0	5.24±1.25		12.21±2.42		12.05±1.76		10.58±1.77	
Class 5 ^e	58	14.3	5.06±1.05		12.25±2.18		12.17±1.45		11.12±1.86	
Class 6 ^f	72	17.7	5.06±1.30		11.33±2.28		12.16±1.44		10.88±2.02	
Gender										
Female	247	60.8	5.14±1.15	0.926	12.65±2.18	< 0.001	12.07±1.43	0.545	10.76±1.87	0.418
Male	159	39.2	5.15±1.31		11.90±2.47		11.98±1.47		10.61±1.89	
Current life										
With family	177	42.1	5.11±1.23	0.929	12.46±2.42	0.007	12.02±1.44	0.809	10.63±1.80	0.355
In dormitory	52	12.8	5.15±1.12		13.25±2.03		11.98±1.35		10.75±2.29	
With friend	127	31.3	5.16±1.26		12.01±2.13		12.13±1.44		10.61±1.75	
Alone	50	12.3	5.24±1.17		11.98±2.51		11.92±1.58		11.14±2.01	

*Posthoc Tukey's: a > b = c = d = e = f

people among male students as they progressed through medical education despite reporting different attitudes in subjects that did not involve health. According to the results of the KOGAN questionnaire, no significant difference with respect to gender was observed in the present study. In the study by Alford *et al.*, the decrease in positive attitude of male students toward older people with progressing years was found to be associated with the fact that the males are reluctant to make detailed physical examination and take detailed anamnesis (19). In the study by Leung *et al.*, a significant difference in positive attitudes toward older people was observed in female physicians aged greater than 30 years of age who had been working for over 10 years (20). As the results of the present study were similar to these results, we believe the hypothesis that male students prefer caring for younger patients and find taking anamnesis from older people is troublesome is noteworthy and that this issue should be investigated in more detail in the future studies assessing the attitudes of students and health workers toward older people.

Previous studies have reported that living with older individuals increased positive attitude toward older people (17, 21). However, the study conducted by Cankurtaran *et al.*, involving students of a medical faculty in Turkey, reported that living with older individuals was not associated with attitudes toward older people (5). In the present study, no signifi-

cant difference in attitudes toward elderly individuals was observed between students who live in nuclear families and those who live in extended families. The finding that the proportion of participants who lived in a nuclear family in the present study was as high as 91.4% may have introduced bias into the results of the present study by affecting the distribution of participants. Thus, the findings of the present study should therefore be interpreted with caution.

As demonstrated by the study by Tufan *et al.*(22), in which a significant difference in the attitudes of intern students was observed before and after geriatrics rotation, geriatrics rotation training appears to be a necessary component of medical education which we believe to often be highly insufficient in Turkey and does not exist at many Turkish medical faculties.

CONCLUSION

The present study demonstrated that medical faculty students from first to sixth year (the entire duration of undergraduate medical education) had problems internalizing social and professional values regarding elderly patients. Improved medical education in this area may have a benefit in improving the relationships of medical students with older individuals/patients and establish an environment of confidence



and allowing reflection of such values and their behavior. Considering the expectations from healthcare providers of the elderly population, who are more fragile compared to normal individuals, it should be envisaged that the responsibilities of the physicians have increased. Currently, the responsibilities and liabilities of factors that prepare medical students for the medical profession, in particular lecturers and medical curricula, should be separately assessed.

Conflict of Interest

All authors accept that there is not any conflict of interest.

Financial Disclosure

Authors who have no relevant financial interests are asked to provide a statement indicating that they have no financial interests related to the material in the manuscript.

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