

Original Article

Healthcare Students' Levels of Compassion and Attitudes towards Older People: A Cross-sectional Descriptive Study

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Abstract

Background: The attitudes and levels of compassion of healthcare care professionals affect directly the quality of healthcare care services given to the older people. The healthcare professionals are expected to provide healthcare services without discrimination and marginalization in compliance with their professional ethics and show compassion towards older people.

Objective: This study was conducted to determine the dentistry, medical and nursing students' attitudes toward older people and their levels of compassion.

Methods: This was descriptive cross-sectional study. The study sample consisted 880 healthcare students; who were 361 (41%) studied nursing, 322 (36.6%) studied medicine and 197 (22.4%) studied dentistry. Data were collected using an information form, the "Compassion Scale" and the "Kogan's Attitudes toward Old People Scale". Statistical analysis of the research data was conducted using descriptive statistics, ANOVA, independent t test. Pearson correlation coefficient was used to examine the relation between measurement values.

Results: Mean Kogan's Attitudes toward Old People Scale scores of the university students were found to be 98 ± 14.05 . The study found that mean Kogan's Attitudes toward Old People Scale scores of the dentistry students and male students were lower and there were statistically significant differences between the groups. Total Compassion Scale mean score of the students was 3.58. Total Compassion Scale mean scores of the nursing students were lower than that of other students. A statistically significant relationship was found between the Kogan's Attitudes toward Old People Scale and Compassion Scale scores.

Conclusion: The healthcare students' attitudes towards older people were positive and compassion levels were high. The study shows that the dentistry students' attitudes toward older people were lower than medical and nursing students while the compassion levels of nursing students were lower than medical and dentistry students.

Keywords: Healthcare students, older people, attitude, compassion

Introduction

The decrease in fertility and death rates and improvement in preventative and therapeutic healthcare services have extended life expectancy, thus, increasing the aging population worldwide (Kose et al., 2015). Similarly, the rate of aged people over 65 years old is increasing in Turkey. The rate of the older people population over 65 years old 8.5% in 2018 and with this proportion Turkey is ranked 66th among 167 countries. This rate will be estimated to be 10.2% in 2023 and 25.6% in 2080 (TUIK, 2018). Aging in a healthy way and having the quality of life is a primary goal globally where the aging population is rapidly increasing. In this direction, receiving quality healthcare services is important in the aging process where comorbidity increases. The attitudes and levels of compassion healthcare professionals' affect directly the quality of healthcare services given to older people. The General Medical Council and the Nursing and Midwifery Council states that healthcare professionals should have knowledge and skills as well as compassion to provide good care (Bray et al., 2014). However, negative prejudices, values, beliefs, and attitudes toward older people affect negatively the care provided to them (Zverev et al., 2013; Arun & Pamuk, 2014). In the literature stated that healthcare professionals have negative attitudes towards the older people and perceive the older people as a group of patients who occupy a bed (Liu et al., 2014; Kose et al., 2015; Danis & Kara, 2017). The workforce, who are the future older generation, are in a position of providing welfare, services, and support for older people and are expected to provide services without discrimination and marginalization in compliance with their professional ethics and show compassion which is a moral virtue (Danis & Kara, 2017; Dalgali & Gurses, 2018). Compassion, which is a key issue in healthcare, is defined as an emerging need to help others by empathizing with them considering the events they have experienced (Ugurlu & Eti Aslan, 2017; Dalgali & Gurses, 2018). Larson and Yao (2005) have stated that patients express their worries, disease complaints and behaviors better to compassionate healthcare experts. Providing compassionate care was reported to increase patient satisfaction and hasten the recovery process in the relevant literature (Ugurlu & Eti Aslan, 2017). Today's university students are tomorrows professionals, who will provide care to older people, therefore,

compassion levels and attitudes should be measured to increase the quality of care services for geriatric patients (Zverev, 2013; Arun & Pamuk, 2014; Ugurlu & Eti Aslan, 2017). Previous studies have largely been concerned with the attitudes of nursing students while the attitudes of other healthcare professionals, such as physicians, occupational therapists, social workers and physio-therapists (Ayoglu et al., 2014; Dincer et al., 2016; Alkaya & Okuyan, 2017; Sari et al., 2019). But, no study conducted with dentists and dentistry students was found in the relevant literature in Turkey while quite a few international studies were found (Gupta et al., 2014; Hyde, 2015; Rucker et al., 2018). However, oral health is part of general health. More than half of the older people population have no teeth and 39.1% have chewing problems (Razak et al., 2014). Dentistry health is a significant factor contributing to older people people's health and nutrition. Malnourishment causes accelerated physical and mental disabilities in older people. Although these circumstances affecting older people are treatable or preventable, most of this population postpone treatments due to the attitudes and behaviors of their dentists (Razak et al., 2014). Therefore, dentists' attitudes toward the older people are also important in health care.

This study was conducted to determine the dentistry, medical and nursing students' attitudes toward older people and their levels of compassion. The following questions were generated based on the aim of the study:

1. What are the compassion levels of dentistry, medical and nursing students?
2. What are the attitudes of dentistry, medical and nursing students toward older people?
3. What are the factors that affect students' attitudes and compassion levels toward older people?
4. Is there a relationship between the attitudes of the student toward older people and their compassion levels?

Methods

The healthcare students' (dentistry, medical and nursing students) attitudes and levels of compassion toward older people were measured using a descriptive cross-sectional design with a written questionnaire. This descriptive study was conducted between April 2018 and March 2019 in Turkey. The population of the study included

1,610 students who were registered in nursing (390), medical (950) and dentistry (270) faculties in the 2017-2018 academic years. No sampling was selected; 880 (54.6%) students (361 nursing, 322 medicine and 197 dentistry students), who agreed to participate and completed the data collection forms were included in the study. The confidence interval of the sample selected was 99%. Students who volunteered to take part in the study completed self-administered questionnaires.

The Instruments: The information form, Compassion Scale (CS) and the Kogan's Attitudes toward Old People Scale (KOPS) were used as data collection tools.

The information form which included six questions was developed by the researchers to determine students' sociodemographic features.

The Compassion Scale (CS), which was developed by Pommier (2010) and adapted to Turkish by Akdeniz and Deniz (2016) included 24 items in a five-point Likert type scale (1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Always). The scale has six subscales identified as kindness (6,8,16,24), indifference (2,12,14,18), common humanity (11,15,17,20), separation (3,5,10,22), mindfulness (4,9,13,21) and disengagement (1,7,19,23). The subscales indifference, separation and disengagement were reverse calculated. Thereafter, total mean score was calculated. Compassion level increased as the total score obtained from the scale increased. Cronbach's alpha value of the scale was found to be 0.85 in the study of Akdeniz and Deniz (2016) while this study found Cronbach's alpha value as 0.91.

Kogan's Attitudes toward Old People Scale (KOPS) was developed by Kogan to measure individuals' attitudes toward older people in 1961. There were 34 items as a six-point Likert type scale. Seventeen questions are negative statements and seventeen are positive. Negative statements were scored as 6, 5, 4, 3, 2, 1 and positive statements were scored as 1, 2, 3, 4, 5, 6. The scale did not contain any subscales. The score was obtained by totaling the scores of each item. Total scores varied between 34 and 204. Obtaining a 102 score on the scale indicated a neutral attitude toward older people while a lower score indicated a negative attitude and a higher score indicated a positive attitude. Validity and reliability tests for the Turkish version of the KOPS were carried out by Kucukguclu et al (2011). Items numbered 7, 8, 13, 14, 19, 20, 21, 22 were extracted as they had low correlation

values in the Turkish adaptation. The scale was reduced to 26 items in total including thirteen positive and thirteen negative statements. Each item was scored between one and six, and total scores varied between 26 and 156. Thus, getting a score higher than 78 indicated a positive attitude toward older people. The Cronbach's alpha coefficient for the Turkish version of the KOPS was 0.89 while this study found Cronbach's alpha value as 0.82.

Data Analysis: Data were assessed using the SPSS 22.0 (Statistical Program for Social Sciences) package program. Numbers, frequency distribution, mean and standard deviation were used to present descriptive characteristics. Kolmogorov-Smirnov test was used to assess whether continuous variable distributed normally. Independent two sampling *t* test was used to assess the normally distributed data for two groups, and the one-way analysis of variance (ANOVA) was used for multiple groups. Duncan test was used to determine the group that caused difference among more than two groups. Pearson correlation coefficient was used to examine the relation between measurement values. Confidence interval was determined to be <0.05 for statistical significance.

Ethical Considerations: An approval from The Faculty of Dentistry Ethics Committee (No: 2018/025) was obtained before applying data collection procedures (No: 2016-272). The students received information about the study and gave written consent. Then data were collected during out-of-class hours in a classroom environment.

Results

Of the 880 students, 361 (41%) studied nursing, 322 (36.6%) studied medicine and 197 (22.4%) studied dentistry. Of the students, 54.4% were female and 45.6% were male. The mean age was 21.34 ± 1.77 . Most of the students lived with their nuclear families (85.5%) in districts (58.5%) before starting their university education. The percentage of students who had an old person in their homes was 36.6% (Table 1).

Total KOPS mean scores of the students were 98 ± 14.05 . A statistically significant difference was found between total KOPS mean scores of the students in terms of their schools. Total KOPS mean scores of the dentistry students were lower than that of other students. Students' place of residence, family type and living together with older people did not change their attitudes

($p > 0.05$, Table 1). Total CS mean scores of the students was 3.58 (min:1.83-max:5.13). As shown in Table 1, a statistically significant difference was found between total CS mean scores of the students in terms of their schools ($p < 0.001$). Total CS mean scores of the nursing students were lower than that of other students. Table 1 shows total CS mean scores of the students based on some sociodemographic features of them. A statistically significant difference was found between CS scores of the students in terms of their place of residence and family type ($p < 0.001$).

A statistically significant difference was found on CS and KOPS scores of three different students

of healthcare professionals based on sex variable. CS and KOPS mean scores of female healthcare students in each group were higher than those of males and the difference between them was statistically significant at an advanced level ($p = 0.000$, Table 2). Table 3 shows a statistically significant difference between subscales of CS and faculties where students were registered ($p < 0.05$). All CS subscale scores of the nursing students were lower than that of medical and dentistry students. A statistically significant positive relationship was found between the KOPS and CS scores ($p < 0.001$, Table 4).

Table 1. Distribution of Healthcare Students' Sociodemographic Characteristics and Mean KOPS and CS Scores (n:880)

Sociodemographic Characteristics		KOPS				CS	
		n	%	Mean \pm SD	p-value	Mean \pm SD	p-value
Age (Mean \pm SD)		21.34 \pm 1.7					
Faculty	Medicine ^{a,b,x}	322	36.6	99.7 \pm 13.9	0.041*	3.7 \pm 0.5	0.000***
	Dentistry ^{a,x}	197	22.4	97.3 \pm 15.2		3.7 \pm 0.5	
	Nursing ^{b,y}	361	41.0	100.4 \pm 13.4		3.4 \pm 0.6	
Family Type	Nuclear Family	752	85.5	99.3 \pm 14.0	0.532	3.6 \pm 0.6	0.001**
	Large Family	128	14.5	100.2 \pm 14.4		3.4 \pm 0.6	
Place of Residence	City ^x	515	58.5	99.1 \pm 14.2	0.397	3.6 \pm 0.5	0.004**
	District ^x	297	33.8	100.3 \pm 14.2		3.6 \pm 0.6	
	Village ^y	68	7.7	98.1 \pm 12.4		3.4 \pm 0.6	
Living with an older person	Yes	322	36.6	99.6 \pm 14.6	0.715	3.6 \pm 0.6	0.472
	No	558	63.4	99. \pm 13.8		3.6 \pm 0.6	

^{a,b}; Same superscript letters indicate no statistically significant difference for KOPS and

^{x,y}; Same superscript letters indicate no statistically significant difference for CS (one-way ANOVA test, Duncan HSD test).

Significant at *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 2. Distribution of Mean KOPS and CS Scores of Healthcare Students Based on Sex

Healthcare Student's Sector	Sex	KOPS		CS	
		Mean ± SD	p-value	Mean ± SD	p-value
Medicine ^{a, x}	Female	101.0±14.6		3.8±0.5	
	Male	98.3±13.2	0.035*	3.5±0.5	0.000***
Dentistry ^{b, x}	Female	98.9±14.9		3.8±0.5	
	Male	95.1±15.5		3.5±0.5	
Nursing ^{a, y}	Female	101.7±14.6		3.6±0.7	
	Male	98.7±11.3		3.3±0.5	

^{a,b}; Same superscript letters indicate no statistically significant difference for KOPS and ^{x,y}; Same superscript letters indicate no statistically significant difference for CS (univariate ANOVA test, Duncan HSD test).

Significant at ***p < 0.001, **p < 0.01, *p < 0.05

Table 3. Distribution of CS Subscale Mean Scores of Healthcare Students

Subscales of the Compassion Scale	Students' Healthcare Sector	Mean ± SD	p-value
Kindness	Medicine ^a	3.8±0.7	0.001***
	Dentistry ^a	3.8±0.7	
	Nursing ^b	3.6±0.8	
Indifference	Medicine ^a	3.8±0.7	0.000***
	Dentistry ^a	3.8±0.7	
	Nursing ^b	3.5±0.8	
Common humility	Medicine ^a	3.7±0.8	0.000***
	Dentistry ^a	3.7±0.7	
	Nursing ^b	3.4±0.8	
Separation	Medicine ^a	2.8±0.5	0.000***
	Dentistry ^a	2.8±0.5	
	Nursing ^b	2.6±0.6	
Mindfulness	Medicine ^a	3.8±0.7	0.000***
	Dentistry ^a	3.7±0.6	
	Nursing ^b	3.5±0.8	
Disengagement	Medicine ^a	3.9±0.7	0.000***
	Dentistry ^a	3.9±0.7	
	Nursing ^b	3.7±0.8	

^{a,b}; Same superscript letters indicate no statistically significant difference (ANOVA test, Duncan HSD test). Significant at ***p < 0.001, **p < 0.01, *p < 0.05

Table 4. Relationship between the Kogan's Attitudes toward Old People Scale and the Compassion Scale

		1	2
1. The Compassion Scale (CS)	r	-	0.344***
2. Kogan's Attitudes toward Old People Scale (KOP)	r	0.344***	-

Significant at *** $p < 0.001$

Discussion

In the near future, it is estimated that the care of older people will be an increasingly important part of the remit of the health care providers. Healthcare professionals are the occupational group with whom patients and their families spend time, communicate and primarily consult for their problems. Therefore, it is important for healthcare professionals to be sensitive and compassionate toward patients and their relatives during the diagnosis and treatment processes. It was found that the total KOPS scores of the students were high (98 ± 14.05 , >78). This indicates that healthcare students have a positive attitude toward older people. There are studies in the literature which state that healthcare personnel's attitudes toward older people is positive (Zverev, 2013; Arun & Pamuk, 2014; Ayoglu et al., 2014; Sari et al., 2019) as well as studies that state the opposite (Kose et al., 2015; Danis & Kara, 2017). According to the sex-based comparisons, female students were found to have more positive attitudes toward older people than male students ($p < 0.05$). Some previous studies indicated that sex does not affect attitudes toward older people (Doherty et al., 2011; Zverev, 2013; Gupta et al., 2014; Alkaya & Okuyan, 2017) while others indicated that male students have more positive attitudes toward older people (Ayoglu et al., 2014; Kose et al., 2015; Rucker et al., 2018). However, the literature reflects that it is more common for female students to have a more positive attitude toward older people (Liu et al., 2014; Dincer et al., 2016). Accordingly, it is fair to state that female students have more positive attitude toward older people.

A statistically significant difference was found between total KOPS mean scores of the students in terms of their schools ($p < 0.05$). Total mean scores of the dentistry students were lower than other healthcare students. KOPS scores of the

medical and nursing students were close to one another. Dentistry students especially perceive old age in a more abstract way than nursing and medicine students. Studies on healthcare students' attitudes toward old age have differing results. Some studies stated that there were no difference between medical and nursing students' attitudes toward older people (Doherty et al., 2011; Zverev, 2013). However, while Ayoglu et al. (2014) have reported that medical students had a more positive attitude toward older people, Wang et al. (2009) have reported that nursing students had a more positive attitude toward older people. No studies on dentistry students' attitudes toward older people were found in Turkey while quite a few international studies were found (Gupta et al., 2014; Hyde, 2015; Rucker et al., 2018). Gupta et al. (2014) have determined dentistry students' attitudes toward older people as positive. In line with the present study, studies in the literature have shown that discrimination against older people is common among dentistry students (Hyde, 2015). These results indicated that dentistry students' have a lack of perspective about the humanistic approach and awareness that older people require a great deal of empathy and patience.

Compassion, a humanistic value, has an important role in healthcare. The mean CS score of the students was high (3.58), (the highest score that can be obtained from the scale is 5). Cingol et al. (2018) have found the mean CS score of nursing students as 4.19.

Based on the variable of sex, female students in each group were found to have significantly higher compassion levels than males ($p < 0.05$). This shows similarity with studies in the relevant literature (Tatum, 2012; Cingol et al., 2018).

Statistically significant differences were found between the place of residence and family type, and total CS and subscale scores of healthcare

students ($p < 0.05$). This study found scale scores of students who lived in villages and had extended family were lower. Contradictory to the present study, the literature indicated that families' place of residence did not affect students' compassion levels (Cingol et al., 2018).

A statistically significant difference was found between subscale and total scale scores and faculties where the students were registered ($p < 0.05$). Compassion levels of the nursing students were lower than that of medical and dentistry students, which was an unexpected result. However, a humanistic approach and compassion are accepted as part of professional nursing care (Bray et al., 2014). Previous studies reported that compassion levels of nursing students were higher than medical students (Agorwal et al., 2017; Cingol et al., 2018). There were no national or international studies on compassion levels of dentistry students. Studies in the relevant literature generally examined dentistry students' empathy levels which is inherent in compassionate care (Babar, 2013; Dı'az-Narva'ez et al., 2017). Babar (2013) found that the empathy levels of dentistry students were high while Dı'az-Narva'ez (2017) found the opposite.

Attitudes and compassion levels of students toward older people while selecting an occupation in healthcare are influenced by their opinions and experiences with older people. A statistically significant positive relationship was found between the KOPS and CS scores ($p = 0.05$). There are studies with similar results in the literature (Samre et al., 2013; Diren, 2018)

Conclusion: The study found that dentistry students' attitudes toward older people were less positive than medical and nursing students while the compassion levels of nursing students were lower than medical and dentistry students. There was a positive relationship between students' attitudes and compassion levels toward older people.

Limitations: The findings of this descriptive study reflect the perceptions of a small sample of students. These findings cannot be generalized.

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