RESEARCH

AGEISM-RELATED ATTITUDES OF PARAMEDIC STUDENTS AND PROFESSIONALS

Turkish Journal of Geriatrics
DOI: 10.31086/tjgeri.2020.124
2019;22 (4):454-463

Sinan YENAL[1]
Tuğba GÜLTEKİN1

Abstract

Introduction: This study was conducted to determine ageism-related attitudes of paramedics working at the 112 emergency ambulance services and students attending the paramedic programmes.

Materials and Method: The sample universe of this cross-sectional study consisted of the paramedics working at İzmir Provincial Medical Emergency Service Department as well as the students attending the paramedic programmes of three universities in the province of İzmir. No specific sampling was done because the intention was to cover the entire sampling universe. The total number of the participants were 501 (305 students and 196 professional paramedics). The Ageism Attitude Scale, the validity and reliability of which was tested by Yılmaz, was used as the data collection tool. Collection time area of this work was between March-April 2019.

Results: Of the professional paramedics and paramedic students who participated in the study, 61.3% were female. The paramedics had a mean scale score of 84.36±9.57 and they had positive ageism-related attitudes. The 'Positive Ageism', 'Negative Ageism' and 'Total Ageism' scores of the professional paramedics were found to be higher. The female participants were found to have significantly higher 'Restricting the Life of the Elderly' scores whereas male participants had significantly higher 'Positive Ageism' scores. Of the female professional paramedics and paramedic students, the female professional paramedics had significantly higher 'Positive Ageism', 'Negative Ageism' and 'Total Ageism' scores. Transition from being student to professional working life and seniority in employment led to an increase in positive attitudes towards ageism.

Conclusion: It was concluded that the professional paramedics and paramedic students had generally positive ageism attitudes.

Keywords: Allied Health Personnel; Attitude; Ageism; Aged.

CORRESPONDANCE
Sinan YENAL
Dokuz Eylül University, Health Care Services Vocational School, İzmir, Turkey.

Phone: +905057850360
e-mail: sinan.yenal@deu.edu.tr

Received: 26/06/2019
Accepted: 03/10/2019

[1] Dokuz Eylül University, Health Care Services Vocational School, İzmir, Turkey.

ARAŞTIRMA

ÖĞRENCİ VE ÇALIŞAN PARAMEDİKLERİN YAŞLI AYRIMCILIĞINA İLİŞKİN TUTUMLARI

Öz

Giriş: Bu çalışma 112 ambulanslarında görev yapan paramediklerin ve paramedik programı öğrencilerinin yaşlı ayrımcılığı ilişkin tutumunu belirlemek amacıyla yapılmıştır.

Gereç ve Yöntem: Kesitsel tipte olan bu araştırmanın evreni, İzmir İl Ambulans Servis Başhekimliğinde çalışan paramedikler ve İzmir ilinde paramedik programı bulunan üç üniversitede okuyan öğrencilerden oluşmuştur. Örnek seçimi yapılmamış, evrenin tamamına ulaşmak hedeflenmiştir. Çalışmanın katılımcıları 305 öğrenci, 196 çalışan paramedik olmak üzere toplam 501 kişiden oluşmuştur. Bilgi toplama aracı olarak Yılmaz tarafından geçerlilik ve güvenilirlik çalışması yapılmış olan 'Yaşlı Ayrımcılığı Tutum Ölçeği' kullanılarak veriler elde edilmiştir. Çalışmanın verileri Mart-Nisan 2019 tarihleri arasında toplanmıştır.

Bulgular: Araştırmaya alınan öğrenci ve çalışan paramediklerin %61.3'ü kadındır. Paramediklerin ölçek puan ortalaması 84.36±9.57 olup yaşlı ayrımcılığına ilişkin tutumlarının olumlu olduğu görülmüştür. Çalışan paramediklerin 'olumlu ayrımcılık', 'olumsuz ve toplam ayrımcılık' ölçek puanları yüksek bulunmuştur. Çalışmaya alınan kadınların 'yaşamını sınırlama', erkeklerin 'olumlu ayrımcılık' puanı anlamlı bir şekilde yüksek bulunmuştur. Cinsiyeti kadın olan öğrenci ve çalışan paramedikler arasında çalışan kadınların anlamlı bir şekilde 'olumlu, olumsuz ve toplam ayrımcılık' puanları yüksek bulunmuştur. Öğrenci olmaktan iş hayatına geçişin, iş yaşamında da kıdem yılının artmasının yaşlı ayrımcılığına ilişkin olumlu tutumun artmasına neden olduğu görülmüştür.

Sonuç: Genel olarak öğrenci ve çalışan paramediklerin yaşlı ayrımcılığına ilişkin tutumlarının olumlu olduğu sonucuna ulaşılmıştır.

Anahtar Sözcükler: Paramedik; Tutum; Yaşlı Ayrımcılığı; Yaşlı.

INTRODUCTION

The proportion of population aged ≥ 65 years in the total population is gradually increasing worldwide as well as in Turkey (1). According to the 2018 data of the Turkish Statistical Institute, the rate of population aged ≥ 65 years was 8.7%; this rate is estimated to be 10.2% by 2023 (2).

Health problems are increasing in parallel with the increase in the elderly population (3). Therefore, as they apply to all health institutions, elderly patients also apply to 112 ambulance services and receive emergency medical services (4).

In Turkey, the rate at which patients aged 65 and above use ambulance services varies between 6% and 40% (4-6). This rate was reported to be 38% and 48% in the US and Japan, respectively (7, 8). Depending on the changes in the population, it is estimated that the use of ambulance services by the elderly will increase. Consequently, it is essential for emergency medical services (EMS) to develop tools to ensure the care of these patients (9, 10).

The 112-emergency telephone number is a building block of the EMS. It is essential that EMS is offered to all people throughout the country for 24 hours without interruption, as quickly as possible, and with a team approach. The 112 ambulance services performs the duty of carrying patients and injured persons from the site to a medical facility and they employ physicians, emergency medical technicians and paramedic as healthcare personnel. In Turkey, paramedics can be defined as the healthcare personnel who finish the first aid and emergency services programme (paramedic programme) at the vocational schools of healthcare services of universities (11).

Changes in the sociocultural system, attitudes and behaviours of society as well as perceptions of individuals and society about old age influence the services provided to the elderly and may create various problems. Ageism, particularly faced by the elderly, is among these problems (12).

Today, the aged people are exposed to ageism in many societies around the world. This form of discrimination is the result of negative attitudes harboured by society, family members and other people, particularly including younger individuals against the elderly and old age in general (13).

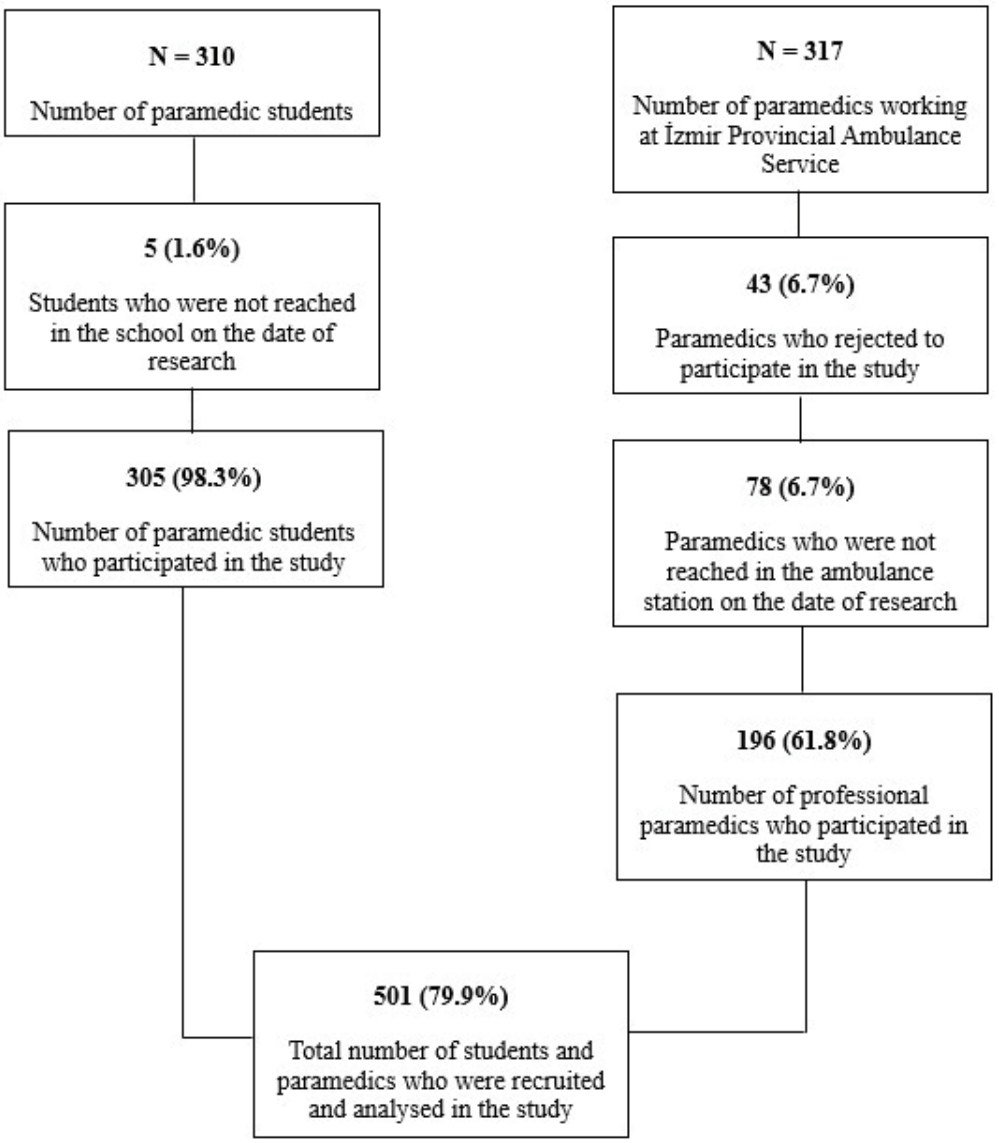
This makes it crucial to identify ageism attitudes of paramedics who work or will work at the 112 ambulance services, providing 24-hour EMS to all age groups in society. This study was conducted to determine ageism attitudes of paramedics working at the 112 ambulance services and the students attending the paramedic programmes.

MATERIALS AND METHOD

This descriptive study was conducted with the paramedics working at İzmir Provincial Medical Emergency Service Department along with the students attending the paramedic programmes of three universities in the province of İzmir. No specific sampling was done for this study because the intention was to cover the entire sampling universe. Those who refused to participate in this study and those who were not at the school or the 112-ambulance station at the date the study was conducted were excluded in the study. The flowchart for the sampling universe of the study is shown in Figure 1.

The Ageism Attitude Scale (AAS), the validity and reliability of which was tested by Yılmaz, was used as the data collection tool. The AAS is a 5-point Likert-type scale comprising the following choices for each item: 'Strongly Disagree', 'Disagree', 'Undecided', 'Agree' and 'Strongly Agree'. Designed as a self-reflexive tool, the AAS has 23 items and three sub-scales. The sub-scale 'Restricting the Life of the Elderly' has 9 items while the sub-scales 'Positive Ageism' and 'Negative Ageism' have 8 and 6 items, respectively. The highest and lowest scores that can be obtained from this scale are 115 and 23, respectively.

Figure 1. Flowchart showing the derivation of the sample used in this study.



Accordingly, the highest and lowest scores are 45 and 9, respectively, for the sub-scale 'Restricting the Life of the Elderly', 40 and 8 for the sub-scale 'Positive Ageism' and 30 and 6 for the sub-scale 'Negative Ageism.' Higher scores from the scale show positive attitudes and lower scores indicate negative attitudes concerning ageism (13).

Previous studies on this subject were used for determining the independent variables of the present study. Gender was selected as an independent variable because of the biological and psychological differences between the two genders. Work experience was selected as an independent variable because of the changes in

the perspective and attitudes towards the elderly and elderly patients as age progresses. Lastly, monthly income of the family was selected as an independent variable as it may cause difficulties in meeting personal needs.

The data from the paramedic students were collected in the classroom under the supervision of the author. The data from the professional paramedics were collected by contacting the 112 ambulance stations under the supervision of the author. Collection time area of this work was between March-April 2019 (60 days). The participants were briefed about the study and only those who volunteered to participate were included in the study. All the voluntary participants signed written consent forms.

The data were analysed using the Statistical Package for the Social Sciences for Windows software package, version 18.00. Descriptive statistics, Mann–Whitney U test, one-way analysis of variance and Kruskal–Wallis test were used in the analysis.

This study was approved by Non-Invasive Research Ethics Committee of the university (30-01-2019, 2019/02-20).

RESULTS

Of the professional paramedics and paramedic students who participated in the study, 61.3% were female. The mean age was 19.8±1.51 for paramedic students and 30.2±5.52 for professional paramedics. It was found that of the participants, 90.7% lived in nuclear families; 32.2% had a family income of TL TRY 5,001 and above; 28.3% had a family member aged 65 and above; 45.5% lived with a person aged 65 and above in the same house during part of their lives and 55.4% lived in a province for a significant proportion of their lives.

The AAS total and sub-scale scores of the professional paramedics and paramedic students are shown in Table 1. The paramedics were found to have positive attitudes regarding ageism.

Table 1. General Characteristics of Patients.

Scale	Professional paramedics and paramedic students (n=501)		
	Lowest	Highest	$\overline{X}$ ± S
Restricting the life of the elderly	13.00	45.00	37.10±4.66
Positive ageism	8.00	40.00	29.55±5.32
Negative ageism	6.00	30.00	17.70±3.87
Total ageism	57.00	110.00	84.36±9.57

Table 2. Comparison professional paramedics and paramedic students based on AAS total and sub-scale scores.

Scale	Paramedic students (n=305)			Professional paramedics (n=196)			
	Lowest	Highest	$\overline{X} \pm S$	Lowest	Highest	$\overline{X} \pm S$	
Restricting the life of the elderly	13.00	45.00	36.78±4.80	22.00	45.00	37.61±4.40	Z= −1.72 p= 0.08
Positive ageism	8.00	40.00	29.08±5.57	16.00	40.00	30.28±4.81	Z= −2.51 p= 0.01
Negative ageism	6.00	30.00	17.28±3.72	9.00	29.00	18.36±4.01	Z= −2.88 p= 0.00
Total ageism	57.00	110.00	83.14±9.45	63.00	110.00	86.25±9.57	Z= −3.40 p= 0.00

The comparison of AAS total and sub-scale scores of the professional paramedics and paramedic students is present in Table 2. The 'Positive Ageism', 'Negative Ageism' and 'Total Ageism' scores of the professional paramedics were found to be higher.

The comparison of the descriptive characteristics of the participants based on AAS total and sub-scale scores is given in Table 3. The female participants were found to have higher 'Restricting the Life of the Elderly' scores whereas male participants had higher 'Positive Ageism' scores. It was observed that there were significant differences between the 'Positive Ageism' and 'Total Ageism' scores based on age groups and this difference was attributable to the group aged 31 and above. Significant differences were found between the 'Restricting the Life of the Elderly' and 'Negative Ageism' scores based on family monthly income and this difference was attributable to the group aged TRY 5,001 and above. Moreover, significant differences were found between the 'Restricting the Life of the Elderly' and 'Total Ageism' scores based on the duration of education and employment, and this difference was due to the group '11 years and above.'

The comparison of AAS total and sub-scale scores of the professional paramedics and paramedic students based on their descriptive characteristics is shown in Table 4. The 'Positive Ageism', 'Negative Ageism' and 'Total Ageism' scores of the working female paramedics were found to be higher. This was also the case for the paramedics in a nuclear family. The professional paramedics who had a family member aged 65 and above had higher 'Positive Ageism' and 'Total Ageism' scores while those who did not such a family member had higher 'Negative Ageism' and 'Total Ageism' scores.

Table 3. Comparison of the descriptive characteristics of the participants based on AAS total and sub-scale scores.

Variable	n	Restricting the life of the elderly	Positive ageism	Negative ageism	Total ageism
		$\overline{X}$ ± S	$\overline{X}$ ± S	$\overline{X}$ ± S	$\overline{X}$ ± S
Gender					
Female	194	37.43±4.50	29.11±5.05	17.73±3.88	84.27±9.18
Male	307	36.59±4.87	30.24±5.66	17.66±3.86	84.49±10.17
		Z = −2.08 p = 0.03	Z = −2.62 p = 0.00	Z = −0.04 p = 0.96	Z = −0.26 p = 0.78
Age group					
20 years and below	238	37.09±4.54	29.11±5.35	17.47±3.68	83.67±9.15
21–30 years	177	36.74±4.52	29.74±5.07	17.30±3.81	83.78±9.38
31 years and above	74	38.18±4.39	30.20±5.31	19.57±3.80	87.95±10.0
		Z = −1.61 p = 0.10	Z = −1.86 p = 0.06	Z = −4.38 p = 0.00	Z = −3.21 p = 0.00
Family type					
Nuclear	446	37.25±4.62	29.48±5.16	17.76±3.89	84.48±9.38
Extended	45	36.47±4.74	30.69±5.98	17.19±3.79	84.31±11.39
		Z = −1.28 p = 0.19	Z = −1.58 p = 0.11	Z = −1.12 p = 0.26	Z = −0.12 p = 0.90
Family monthly income (₺)					
3,000 and below	169	37.42±4.15	29.26±5.23	17.38±3.59	84.06±8.74
3,001–5,000	166	36.32±5.06	29.69±5.50	17.37±3.87	83.37±10.08
5,001 and above	159	37.57±4.72	29.69±5.34	18.48±4.05	85.75±9.87
		KW = 7.43 p = 0.02	KW = 1.12 p = 0.56	KW = 7.78 p = 0.02	KW = 5.13 p = 0.07
Family member aged 65 and above					
Yes	141	37.74±3.97	30.76±5.30	17.46±3.73	85.96±9.59
No	358	36.85±4.90	29.07±5.27	17.82±3.92	83.73±9.52
		Z = −1.36 p = 0.17	Z = −3.16 p = 0.00	Z = −0.99 p = 0.32	Z = −2.21 p = 0.02
Having a person aged 65 and above living in the same house					
Yes	227	37.42±4.73	29.88±5.42	17.93±3.96	85.23±9.46
No	272	36.84±4.90	29.26±5.24	17.53±3.79	83.64±9.65
		Z = −1.16 p = 0.24	Z = −1.45 p = 0.14	Z = −1.03 p = 0.30	Z = −1.74 p = 0.08
Duration of living a person aged 65 and above living in the same house					
2 years and below	64	37.19±4.41	29.41±5.75	17.91±4.53	84.50±9.26
2–4 years	40	36.60±4.51	28.72±5.31	17.70±3.52	83.03±9.72
4 years and above	123	37.80±4.29	30.50±5.23	18.02±3.80	86.33±9.38
		KW = 3.41 p = 0.18	KW = 4.82 p = 0.09	KW = 0.10 p = 0.95	KW = 4.59 p = 0.10
Duration of education or employment					
Student	306	36.78±4.80	29.08±5.57	17.28±3.72	83.14±9.45
5 years and below	58	36.93±4.12	30.34±4.35	16.84±4.06	84.12±8.43
6–10 years	72	37.74±4.59	29.89±4.56	18.65±4.12	86.25±9.73
11 years and above	65	38.03±4.44	30.63±5.51	19.38±3.51	88.05±9.79
		KW = 5.39 p = 0.14	KW = 7.52 p = 0.05	KW = 23.96 p = 0.00	KW = 16.65 p = 0.00
Place of living					
Province	276	36.93±4.92	29.16±5.65	17.73±4.01	83.82±9.85
District	163	37.36±4.36	29.98±4.86	17.75±3.55	85.09±9.31
Village	59	37.15±4.36	30.24±4.91	17.51±4.10	84.90±9.59
		KW = 0.13 p = 0.93	KW = 2.74 p = 0.25	KW = 0.25 p = 0.89	KW = 1.42 p = 0.49

Table 4. Comparison of AAS total and sub-scale scores of the professional paramedics and paramedic students based on their descriptive characteristics.

Variable		n	Restricting the life of the elderly	Positive ageism	Negative ageism	Total ageism
			$\overline{X}$ ± S	$\overline{X}$ ± S	$\overline{X}$ ± S	$\overline{X}$ ± S
Gender						
Female	**Student**	182	37.02±4.59	28.41±5.19	17.28±3.83	82.71±8.96
	Working	125	38.02±4.32	30.14±4.67	18.38±3.87	86.54±9.05
			Z = −1.80 p = 0.07	Z = −3.15 p = 0.00	Z = −2.40 p = 0.01	Z = −3.55 p = 0.00
Male	**Student**	123	36.41±5.09	30.07±5.99	17.28±3.56	83.77±10.14
	Working	71	36.89±4.48	30.54±5.08	18.32±4.27	85.75±10.17
			Z = −0.37 p = 0.70	Z = −0.33 p = 0.74	Z = −1.61 p = 0.10	Z = −1.08 p = 0.27
Family type						
Nuclear family	**Student**	270	36.95±4.78	29.13±5.42	17.30±3.68	83.38±9.14
	Working	176	37.70±4.35	30.02±4.78	18.46±4.10	86.18±9.52
			Z = −1.36 p = 0.17	Z = −1.79 p = 0.07	Z = −2.89 p = 0.00	Z = −2.90 p = 0.00
Extended family	**Student**	33	35.55±4.88	29.30±6.12	17.03±4.10	81.88±11.56
	Working	12	39.00±3.30	34.50±3.50	17.50±2.87	91.00±8.00
			Z = −2.17 p = 0.02	Z = −2.59 p = 0.00	Z = −0.54 p = 0.58	Z = −2.55 p = 0.01
Family member aged 65 and above						
Yes	**Student**	70	37.21±3.96	30.37±5.54	16.54±3.31	84.13±9.45
	Working	71	38.27±3.94	31.14±5.06	18.37±3.91	87.77±9.44
			Z = −1.66 p = 0.09	Z = −1.32 p = 0.18	Z = −2.84 p = 0.00	Z = −2.67 p = 0.00
No	**Student**	235	36.65±5.02	28.70±5.54	17.50±3.81	82.85±9.46
	Working	123	37.24±4.66	29.77±4.64	18.41±4.08	85.42±9.46
			Z = −0.84 p = 0.39	Z = −1.42 p = 0.15	Z = −1.88 p = 0.06	Z = −1.89 p = 0.05
Having a person aged 65 and above living in the same house						
Yes	**Student**	131	36.98±4.65	29.30±5.68	17.60±3.98	83.88±9.64
	Working	96	38.02±3.89	30.68±4.96	18.39±3.91	87.08±8.93
			Z = −1.49 p = 0.13	Z = −2.33 p = 0.01	Z = −1.68 p = 0.09	Z = −2.61 p = 0.00
No	**Student**	174	36.63±4.92	28.92±5.51	17.04±3.50	82.59±9.03
	Working	98	37.21±4.88	29.88±4.70	18.41±4.12	85.50±10.00
			Z = −0.94 p = 0.34	Z = −1.05 p = 0.29	Z = −2.35 p = 0.01	Z = −2.03 p = 0.04

DISCUSSION

This study is valuable as it is the first to evaluate professional paramedics and paramedic students together. It was observed that the participating paramedics had positive ageism-related attitudes. In other studies conducted on health care workers in Turkey using the same scale, "Total discrimination score" was found to be 87.0 by Özdemir et al., 86.9 by Şimşek et al., 83.1 by Polat et al., 70.6 by Soyuer et al., and 68.8 by Altay et al. (14-18). In a systematic study, Liu et al. demonstrated that the ageism-related attitudes of healthcare personnel were neutral or positive (19). Doherty et al. demonstrated that healthcare personnel harboured positive attitudes towards the elderly in Ireland. They also found that the working nurses had higher ageism scores than nursing students (20). Ross et al. reported positive attitudes of paramedic students towards the elderly in Australia (21). The present study's findings are consistent with other studies.

Beliefs and attitudes towards old age and elderly people vary from culture to culture. In Turkish culture, respect and obedience to the elderly is a traditional and unchanging expectation. This cultural characteristic was considered as a reason for the high discrimination score in the study. However, the social status of the elderly in Turkish culture varies, particularly in metropolitan areas. The reasons for this variation could be explained by increases in urbanisation, migration and industrialisation, economic difficulties, women's participation in the workforce, changes in individuals' social lives and changes in family structures. In Middle Eastern countries, society accepts male elders as wise and prestigious. Similarly, in many cultures, women's status improves with menopause. In Japan, as the age advances, women's status changes and their role in the home improves. In addition, the amount of tasks at home that need to be performed by women decreases with menopause, and the needs of elderly women are met by young people. Such societies are less affected by ageism. This is because old age and elderly people are adopted as a natural part of the life death cycle in these cultures (12, 22).

When the paramedic students and professional paramedics were groups and their scale scores were analysed, the professional paramedics were found to have high 'Positive Ageism', 'Negative Ageism' and 'Total Ageism' scores. Ross et al. found that paramedic students were respectful towards the elderly, but they still harboured certain negative biases (23). Aşiret et al. demonstrated that nurses had positive attitudes towards elderly patients (24). The findings of this study were found to be consistent with the literature.

Participants aged 31 and above who had a family member aged 65 and above and who had been working for more than 11 years had higher 'Total Ageism' scores. Liu et al. reported higher scores for the nurses aged between 30 and 39 (25). In their study on working nurses and nursing students, Söderhamn et al. indicated that the male participants and the participants aged 25 and below were less positive towards the elderly (26). Likewise, Ross et al. found that the participants aged below 25 had higher negative ageism (21). Doherty et al. could find any correlation between the years in the profession and ageism (20). Ross et al. reported that the participants who had an elderly family member were undecided about ageism (23). Studying the attitudes of nursing students towards the elderly in Greece, Lambrinou et al. demonstrated that the variables of having an elderly family member and living with an elderly person did not have any effect on the attitude towards the elderly (27). Increasing age and increasing years in the profession are concurrent developments. Thus, increasing age has a positive impact on ageism. Divergent findings in certain studies may imply different cultural causes.

Upon comparing paramedic students and professional paramedics on their descriptive characteristics, the higher 'Total Ageism' scores

of the professional paramedics were attributed to the working female paramedics. When the paramedics living in a nuclear or extended family were considered, the 'Total Ageism' scores of the professional paramedics were observed to be higher in both groups. The professional paramedics with a family member aged 65 and above and those who had lived with a person aged 65 and above had higher 'Total Ageism' scores.

This study has some limitations. This study was conducted only on paramedics receiving their education and working in Izmir. Izmir is a developed city located at the western edge of Turkey. Consequently, generalisations related to the results are unsuitable. Nevertheless, this study is important since it is one of the rare studies performed on students and professional paramedics.

In conclusion, paramedics generally demonstrate positive attitudes towards the elderly. Compared with the paramedic students, the professional paramedics had higher positive ageism attitudes towards the elderly. It was found that increasing age and subsequently increased duration of employment and having an elderly person (aged 65 or above) living with the family positively affected ageism. The paramedics' attitudes towards the elderly are not related to their sociodemographic characteristics or working conditions. Increasing the courses or topics for elderly patients within the paramedic education curriculum will further improve this positive attitude towards the elderly. In addition, we believe that the introduction of "Geriatrics Ambulance" services within 112 ambulance services will contribute to positive discrimination of the elderly.

Given the rapidly ageing population in the country and around the world, it is important to ensure that paramedics who will work at 112 emergency ambulance services develop positive ageism-related attitudes.

REFERENCES

1. Turkish Statistical Institute (TSI). Elderly with Statistics 2014. [Internet] Available from: http://www.tuik.gov.tr/IcerikGetir.do?istab_id=265. Accessed: 09.09.2019.
2. Turkish Statistical Institute (TSI). [Internet] Available from: http://www.tuik.gov.tr/PreTablo.do?alt_id=1027. Accessed: 09.09.2019.
3. World Health Organization. Global Health and Aging [e-book] NIH Publication; 2011. [Internet]. Available from: http://www.who.int/ageing/publications/global_health.pdf. Accessed: 09.09.2019.
4. Yenal S, Keser G. Mandıracıoğlu A, Yalçın MA, Bayram B, Akçiçek F. The determination of the status of emergency department use by elderly patients and of the indicators for ambulance use. Turkish Journal of Geriatrics 2018;21(2):109-17.
5. Kaldırım Ü, Tuncer SK, Ardıç Ş, et al. Analysis of elderly patients presenting to the emergency department via ambulance. Turkish Journal of Emergency Medicine 2013;13(4):161-5.
6. Nur N, Demir ÖF, Çetinkaya S, Tirek N. Evaluation of the 112-emergency service use by older people. Turkish Journal of Geriatrics 2008;11(1):7-11.
7. Faul M, Stevens JA, Sasser SM, et al. Older adult falls seen by emergency medical service providers. Am J Prev Med 2016;50(6):719–26. (PMID:26853845).
8. Horibata K, Takemura Y. Inappropriate use of ambulance services by elderly patients with less urgent medical needs. Tohoku J. Exp. Med 2015;235:89-95. (PMID:25742927).
9. Sarıtaş A, Kandiş H, Baltacı D. Approach to geriatric patients in emergency services. The Journal of Academic Emergency Medicine JAEM 2013;12:93-7.
10. Strange GR, Chen EH, Sanders AB. Use of emergency departments by elderly patients: projections from a multicenter data base. Ann Emerg Med 1992;21(7):819-24. (PMID:1610039).
11. T.C. Ministry of Health. Implementing Regulation Amending the Regulation on Emergency Health Services. March 15, 2007; Number: 26463. [Internet] Available from:http://www.resmigazete.gov.tr/eskiler/2007/03/20070315-6.htm. Accessed:24.06.2019.
12. Akdemir N, Çınar Fİ, Görgülü Ü. Perception of ageing and ageism. Turkish Journal of Geriatrics 2007;10(4):215-22.

13. Yılmaz DF, Terzioğlu F. Development and psychometric evaluation of ageism attitude scale among the university students. Turkish Journal of Geriatrics 2011;14(3):259-68.
14. Ozdemir O, Bilgili N. Attitudes of Turkish nursing students related to ageism. J Nurs Res 2016;24(3):211-6. (PMID:26998768).
15. Şimşek H, Bahadır H, Bilgin AC. Physicians' attitudes towards the elderly: Ageism in a university hospital in Turkey. Turkish Journal of Geriatrics 2019;22(1):101-11.
16. Polat Ü, Karadağ A, Ülger Z, Demir N. Nurses and physicians perceptions of older people and attitudes towards older people: ageism in a hospital in Turkey. Contemporary Nurse 2014;48(1):88-97. (PMID:25410199).
17. Soyuer F, Ünalan D, Güleser N, Elmalı F. The attitudes of health vocational school students towards ageism and the relation of these attitudes with some demographical variablei. Mersin University Journal of Health Sciences 2010;3(2):20-5.
18. Altay B, Aydın T. Evaluation of the attitudes of nursing students towards ageism. Journal of Education and Research in Nursing 2015;12(1):1-18.
19. Liu Y, While AE, Norman IJ, Ye W. Health professionals attitudes toward older people and older patients: a systematic review. Journal of Interprofessional Care 2012;26(5):397-409. (PMID:22780579).
20. Doherty M, Mitchell EA, O'Neill S. Attitudes of healthcare workers towards older people in rural population: a survey using the kogan scale. Nursing Research and Practice 2011;2011:1-7. (PMID:21994823).
21. Ross L, Jennings P, Williams B. Experience, Knowledge and attitudes: are paramedic students prepared to care for older patients? Educational Gerontology 2016;42(4):241-52.
22. Cilingiroglu N, Demirel S. Aging and ageism. Turkish Journal of Geriatrics 2004;7(4):225-30. (in Turkish).
23. Ross L, Duigan T, Boyle M, Williams B. Student paramedic attitudes towards the elderly: a cross-sectional study. Australasian Journal of Paramedicine 2014;11(3):25-34.
24. Aşiret G, Kaymaz T, Canbolat Ö, Kapucu S. Attitudes of nurses towards older people. Society for Research and Development in Nursing 2015;17(1):10-20.
25. Liu Y, Norman IJ, While AE. Nurses' attitudes towards older people and working with older patients: an explanatory model. Journal of Nursing Management 2015;23:965-73.
26. Söderhamn O, Lindencrona C, Gustavsson SM. Attitudes toward older people among nursing students and registered nurses in Sweden. Nurse Education Today 2001;21:225–9. (PMID:11322814).
27. Lambrinou E, Sourtzi P, Kalokerinou A, Lemonidou C. Attitudes and knowledge of the Greek nursing students towards older People. Nurse Education Today 2009;29:617-22. (PMID:19243864).