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Factors related to the attitudes towards the older adults and empathic skills of gerontology students¹

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Abstract

Aim: In this study, we aimed to determine the factors related to the attitudes and empathic skill levels of gerontology students towards the older adults.

Methods: 167 Gerontology students participated in our study. Data were collected by Google online survey method using personal information form, Kogan's Attitude towards Elderly Scale and Basic Empathy Scale.

Results: Mean age of the students is 21.41 ± 2 year, 80% were female. A statistically significant difference was found between the students' grade level, their mother's education level, whether they lived with an older adult at any time in their lives, the duration of living with an older adult and the total score of the attitude towards the elderly scale ($p < 0.001, 0.002, 0.017, 0.044$, respectively). There was a statistically significant difference between gender, mother's education level, the place where they lived for the longest time and the positive attitude score towards the elderly ($p = 0.008, 0.005, 0.019$, respectively). There was a statistically significant difference between the students' grade level, number of siblings, whether they lived with an older adult at any time in their lives and the negative attitude score towards the elderly ($p < 0.001, 0.016, 0.028$, respectively).


A statistically significant difference was found between gender, mother's education level and the total score of the basic empathy scale ($p < 0.001, 0.005$, respectively), emotional subscale ($p < 0.001, 0.041$, respectively) and cognitive subscale scores ($p = 0.007, 0.005$, respectively). The mean Attitudes Towards Elderly Scale Total Score, Positive Attitude Sub-scale Score and Negative Attitude Sub-scale Score of the students were $156.52 \pm 17.54, 72.59 \pm 11.02$ and 83.93 ± 11.89 , respectively. The mean scores of Basic Empathy Scale Total Score, Cognitive Sub-scale Score and Emotional Sub-scale Score were $78.05 \pm 10.19, 37.04 \pm 4.94$ and 41.02 ± 7.13 , respectively.

Conclusions: In our study, it was determined that the gerontology department students had high attitudes and empathic skills towards the older adults.

Keywords: Geriatrics; gerontology; elderly people; attitude; empathy.

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1. Introduction

Globally, the elderly population is increasing rapidly. Two basic sciences, geriatrics and gerontology examine the issues related to aging. Gerontology is a branch of science that examines the social, psychological, cognitive and biological aspects of aging. Gerontology is particularly distinguished from medical-based geriatrics (Kaker et al., 2016, pp. 55–69).

Older adults are generally considered as having several chronic diseases, needing care from healthcare professionals or institutions, and also known as functionally dependent adults. Due to these facts, negative attitudes towards the older adults occur more often than we know. Attitude towards the older adults is one of the important factors affecting the quality of health services in elderly care (Momtaz et al., 2019, pp. 40–45; Upadhyay et al., 2020, pp. 7–12; Subba et al., 2019, pp. 31–35). Elderly care can be affected by a variety of factors, including health professionals' attitudes towards older people (Gholamzadeh et al., 2018, p. 198). In order to improve the quality of elderly care services, students should be encouraged to choose professions related to elderly care (Zhang et al., 2022, pp. 2348–2355). The results from recent studies, including knowledge and attitudes towards elderly care, draw attention to the negative relationship between the age-based attitudes of health professionals and the quality of care dealing with the elderly health (Momtaz et al., 2019, pp. 40–45; Bužgová & Nečková, 2019, pp. 1087–1091). It has been stated that especially young people are risky groups in terms of showing negative attitudes towards older adults (Mersin, et al., 2015, p. 1143). It is important to increase the knowledge and skills of multidisciplinary team members (such as doctors, nurses, physiotherapists, social workers, psychologists and gerontologists) who will provide then better health services to the older adults and to support their attitudes in a positive way (Koca & Seferoglu, 2020, pp. , 6–11; Podhorecka, Pyszora, et al., 2022, p. 3994).

Related to the aging process as a personal experience, attitudes towards the older adults contains feelings, cognitions, and behaviors (Arrogante et al., 2022, p. 103441). The negative attitudes of young people towards the elderly can be positively affected by enabling them to empathize aging of adults (Mersin et al., 2015, p. 1143). For the last two decades, the concept of empathy has been considered as one of the issues being more emphasized in psychiatry and clinical psychology (Gökalp & İnel, 2021, pp. 32-45). Empathy is defined as the ability of an adult to put oneself in another's position in the face of an event/situation and to sense feelings, thoughts, and behaviors from that person's point of view (Yalınzoğlu Çaka et al., 2018, pp. 996–1005; Ersoy & Köşger, 2016, pp. 9-17). Empathy has an important role for a healthy communication (Yalınzoğlu Çaka et al., 2018, pp. 996–1005; Birinci, 2020, pp. 165–173). The ability to empathize is one of the skills of social sensitivity and social reconciliation, as well as an effective manner in solving of various conflicts and problems (Cangür et al., 2020, pp. 150-163). Although empathy has the ability to understand the needs and feelings of the other, it is stated that it contains multiple elements behind has a multidimensional feature (Gökalp & İnel, 2021, pp. 32-45).

Empathy was used as a cognitive concept until 1960, where the empathy measurement was made to evaluate the perceptions of adults (Yıldız, 2019, p. 7). Young people's prejudices and negative perspectives about older adults had affected the quality of services provided to older adults (Kaçan et al., 2018, pp. 8–15). Better conditions can be achieved by understanding the situations, attitudes and emotions that will affect the elderly in a positive way (Birinci, 2020, pp. 165–173). The role of increased knowledge, empathy-enhancing experiences, and their impact on attitudes towards the older adults is a widely argued topic in the recent literature (Castellano-Rioja et al., 2022, p. 1201). Nowadays, team members providing services to the increasing elderly population have a great impact on considering and communicating with older adults (Birinci, 2020, pp. 165–173).

In this study, it was aimed to determine the positive and negative attitudes of gerontology students, who will provide health services to older adults, towards older adults as stated in different studies

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(Mersin et al., 2015, p. 1143). As stated in some studies, it is aimed to support the negative attitudes of these young people towards the elderly in a positive way with education (Koca & Seferoğlu, 2020, pp. , 6-11; Podhorecka, Pyszora, et al., 2022, p. 3994) and thus increase the quality of care for elderly health when they graduate.

2. Aim

The aim of this study is to evaluate the attitudes and empathic skills of gerontology department students towards older adults and the evaluation of factors associated with them.

3. Materials and Methods

3.1. Design and Participants

This study was designed as a cross-sectional study. Our study population consist of 208 students at the Gerontology Department of a state university in the spring semester of the 2021-2022 academic year. The sample size was chosen to be a minimum of 180 using the G-POWER software, with an effect size of 0.25, a power of 0.80, and a margin of error of 0.05. Amongst the participants only 167 students (80.3%) voluntarily participated in the study via the Google online questionnaire conducted during 24.12.2021 and 13.01.2022.

3.2. Data Collection Tools

Data were collected by Google online survey method using personal information form, Kogan's Attitude towards Elderly (ATE) Scale and Basic Empathy Scale (BES).

3.2.1. Personal information form: Sociodemographic characteristics of the students [age, class, gender, graduated high school, family structure (core, large and separated family), number of siblings, income status, education level of parents, working status and occupation of parents, the student's place of residence and longest residence, the place where the students lived with elderly relatives, the duration of living with them, and thoughts about living with older adults] were recorded.

3.2.2. Attitudes towards the Elderly Scale: This scale was developed by Kogan (1961, pp. 44–54). Its validity and reliability for Turkish community was performed by Duyan and Gelbal (2013, pp. 202–209). The scale is a self-reported assessment tool, which is a two-dimensional scale consisting of 34 items. The first 17 items in the scale belong to the negative attitude subscale, and the remaining 17 items cover the positive attitude subscale. The scale is 6-point Likert type defined as “strongly disagree, disagree, somewhat disagree, somewhat agree, agree, and strongly agree”. The categories are scored as 1, 2, 3, 5, 6 and 7. Statements showing negative attitudes are evaluated inversly. The scores that can be taken from each subscale range between 17-119 and the scores that can be taken from all of them vary between 34-238. High scores from the positive attitude subscale and low scores from the negative attitudes subscale indicate a favorable attitude.

3.2.3. Basic Empathy Scale: This scale was developed by Jolliffe and Farrington (2006, pp. 589–611), its validity and reliability for Turkish were verified by Topçu et al. (2010, pp. 174–182). Likert type scale consisting of 20 items. 9 of them contain statements for measuring cognitive empathy and 11 items for measuring emotional empathy. Cognitive empathy is measured with items 3, 6, 9, 10, 12, 14, 16, 19, and 20, and emotional empathy is measured with items 1, 2, 4, 5, 7, 8, 11, 13, 15, 17, 18. The lowest score that can be obtained from the cognitive empathy sub-scale is 9, and the highest score is 45. For the emotional empathy sub-scale, the lowest score that can be obtained is 11, and the highest score is 55. Total scores obtained from the scores range between 20 and 100. An increase in the total score of the scale indicates increase in the adult's empathy level (Baysal et al., 2019, pp. 80–87; Jolliffe & Farrington, 2006, pp. 589–611; Topçu et al., 2010, pp. 174–182)

3.2. Data Analysis

The data were evaluated using the SPSS V.25. In this study, the data related to the variables are given as numerical data, percentage, mean and standard deviation. The conformity of the numerical variables to normal distribution was evaluated with Skewness and Kurtosis. According to

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Skewness and Kurtosis values, parametric tests were used for normally distributed data and nonparametric tests were used for non-normally distributed data. In order to determine the variability dependence among the variables, Kruskal Wallis test and Mann Whitney U test analyses were applied. Statistical significance was $p < 0.05$.

3.3. Ethical Considerations

The study was also approved by the University Medical Research Ethics Committee (Date-Decision ID: 29.07.2021-21-7.1T/11). The study was conducted in accordance with the principles of the Declaration of Helsinki. Online permission was obtained from the students in the online questionnaire application.

4. Results

The mean age of the students is 21.41 ± 2.00 (18-32) years and 80.8% of them were female. The majority of the participants are from the 2nd grade students (26.9%). The sociodemographic characteristics of the students are given in Table 1.

Table 1. Sociodemographic characteristics (n = 167)

Variables	n	%
Gender		
Female	135	80.8
Male	32	19.2
Graduated high school		
Science high school	3	1.8
Anatolian High School	114	68.3
Private high school	16	9.6
Vocational high School	28	16.8
Others	6	3.6
Class		
Preparatory class	27	16.2
1	29	17.4
2	45	26.9
3	26	15.6
4	40	24.0
Family structure		
Core family	139	83.2
Large family	20	12.0
Separated family	8	4.8
Number of siblings		
None	10	6.0
1-3	128	76.6
≥ 4	29	17.4
Mothers' Education Level		
Illiterate - Literate	15	9.0
Primary - Secondary school	98	58.7
High school	33	19.8
University-Graduate	21	12.3
Fathers' Education Level		
Illiterate - Literate	4	2.4
Primary - Secondary school	86	21.5
High school	50	29.9
University-Graduate	27	16.2

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Mother working status		
Employed	42	25.1
Unemployed	125	74.9
Mother's occupation		
Housewife	125	74.9
Civil servant	14	8.4
Self-employment	15	9.0
Private sector	13	7.8
Father working status		
Employed	115	68.9
Unemployed	52	31.1
Father's occupation		
Civil servant	26	15.6
Self-employment	93	55.7
Private sector	16	9.6
Retired	32	19.2
Longest lived place		
City	95	56.8
Town	40	24.0
Village	32	19.2
Place of residence		
With family	39	23.4
Student Dormitory	94	56.3
Apartment	34	20.4

63.5% of the students lived with an elderly relative. Only 40.7% of them want to live with elderly family members (Table 2).

Table 2. Students' views on aging (n = 167)

Variables	n	%
Living with older relatives		
Yes	106	63.5
No	61	36.5
Duration lived with the older adult, years		
≤2	42	39.6
3-5	19	17.9
≥6	45	42.5
Willingness to live with older family members		
I would like	68	40.7
I do not want	99	59.3
Reasons for not willing to live with older family members		
Private life	75	75.8
The family does not want to live together	11	11.1
Difficulty living with family	3	3.0
Experiencing intergenerational conflict	10	10.1

The mean scores of the students' ATE Scale and BES were 156.52 ± 17.54 (102-197) and 78.05 ± 10.19 (47-98), respectively (Table 3).

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Table 3. Mean score of scales and its subscales

Scales and subscales	Min	Max	M ± SD
Attitudes Towards Elderly Scale Total Score	102	197	156.52 ± 17.54
Positive Attitude Sub-scale Score	37	109	72.59 ± 11.02
Negative Attitude Sub-scale Score	44	109	83.93 ± 11.89
Basic Empathy Scale Total Score	47	98	78.05 ± 10.19
Cognitive Sub-scale Score	20	45	37.04 ± 4.94
Emotional Sub-scale Score	19	55	41.02 ± 7.13

M ± SD, Mean ± Standard Deviation; Min, minimum; Max, maximum

The mean score of positive ATE sub-scale was higher in males, and the difference was statistically significant ($p = 0.008$). Negative sub-scale and total score means were higher in 2nd class students than in other classes ($p < 0.001$, $p < 0.001$, respectively). A statistically significant difference was found between the mean scores of the negative sub-scale in terms of the number of siblings, where the scores were higher in those with 1-3 siblings ($p = 0.016$). Regarding the status of the mother's education level, a statistically significant difference was found between the total score and the positive sub-scale mean score. This difference was due to the students with mothers who graduated from primary and secondary school (respectively, $p = 0.002$, $p = 0.005$). The mean score of positive sub-scale was found to be higher in those living in the towns than those living in the cities and villages ($p = 0.019$). Total and negative sub-scale mean score were found to be higher in those who lived with the older adult at any place in their life ($p = 0.017$, $p = 0.028$, respectively). The mean total score was found to be higher in those who lived with the older adult for six years and more than those who lived less ($p = 0.044$).

Table 4. The relationship among the Attitude towards the Elderly Scale and its subscales, and sociodemographic variables and students' views on aging

Variables	n	Positive attitude		Negative attitude		Total score	
		M ± SD	p	M ± SD	p	M ± SD	p
Gender							
Female	135	71.55±11.23	0.008*	83.61±11.96	0.544	155.16±17.71	0.071
Male	32	76.97±9.00		85.28±11.69		162.25±15.82	
Class							
Preparatory class	27	68.56±12.96	0.197	78.00±10.70	<0.001*	146.56±17.76	<0.001*
		29		70.52±12.47		77.97±14.25	
1	45	73.58±8.25		83.29±10.78		156.87±14.66	
	26	73.08±9.77		90.88±8.81		163.96±14.11	
2							
3	40	75.38±11.47		88,48±9.72		163.85±17.68	
4							
Number of siblings							
None	10	71.90±11.95	0.660	84.80±13.06	0.016*	156.30±16.83	0.055
1-3	128	72.89±11.29		85.00±12.13		157.89±18.03	
≥4	29	71.48±9.71		79.07±9.71		150.55±14.59	

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Mother's Education								
Illiterate	15	64.00±10.33	0.005*	76.13±12.11	0.080	140.13±15.57	0.002*	
Literate								
Primary-Secondary school	98	74.66±10.30		84.62±11.68		159.29±16.77		
High school	33	71.97±13.11		84.58±12.92		156.55±19.80		
University-Graduate	21	70.00±7.73		85.29±9.61		155.29±12.32		
Longest lived place								
City	95	71.23±11.17	0.019*	84.17±13.20	0.674	155.40±18.82	0.180	
Town	40	76.85±10.72		84.20±9.55		161.05±15.45		
Village	32	71.28±11.02		82.91±10.63		154.19±15.38		
Status of living with the older adult								
Living	100	73.43±10.95	0.064	85.65±10.81	0.028*	159.08±17.21	0.017*	
Not living	67	71.33±11.08		81.37±13.02		152.70±17.45		
Time lived with the older adult, years								
≤ 2	42	73.95±11.53	0.423	86.98±9.12	0.110	160.93±16.79	0.044*	
3-5	19	69.95±9.27		82.21±13.80		152.16±16.88		
≥ 6	45	74.33±10.73		85.33±10.83		159.67±16.60		

M ± SD, Mean ± Standard Deviation

A statistically significant difference was found between gender, mother's education level and the total score of the basic empathy scale ($p < 0.001$, 0.005 , respectively), emotional subscale ($p < 0.001$, 0.041 , respectively) and cognitive subscale scores ($p = 0.007$, 0.005 , respectively). It was observed that the empathy level of the students having mothers with a university or higher education is higher than those of having mothers with a lower education level. The empathy level of the students from illiterate and literate mothers was found to be the lowest. (Tablo 5).

Table 5. The relationship between Basic Empathy Scale and its subscales, and sociodemographic variables

Variables	n	BES affective		BES cognitive		Total score	
		M ± SD	p	M ± SD	p	M ± SD	p
Gender							
Female	135	42.01±6.57	<0.001	37.52±4.90	0.007*	79.53±9.69	<0.001
Male	32	36.81±7.95		35.00±4.66		71.81±10.03	
Mother's Education							
Illiterate - Literate	15	38.60±5.96	0.041*	31.93±6.59	0.005*	70.53±11.36	0.005*
Primary - Secondary school	98	41.97±6.88		37.79±4.48		79.76±9.81	
High school	33	38.42±7.59		36.58±4.71		75.00±9.58	
University-Graduate	21	42.38±7.32		37.90±4.04		80.29±8.97	

BES, Basic Empathy Scale; M ± SD, Mean ± Standard Deviation

5. Discussion

According to our research, it can be said that the general attitudes of the students of the department of gerontology towards the elderly are positive. Besides, among the factors gender, number of siblings, class, mother's education level, place of residence, living with the older adults, and the duration of living with the older adults have positive impact. In this study, age, gender, education level, class, place of residence, duration of study, etc. are thought to have impact on attitudes towards the elderly. It is important for students to develop positive attitudes towards the elderly and to overcome prejudices during their education of gerontology, geriatric nursing, geropsychiatry, applied gerontology, and social care in geriatrics during, e.g., (Bužgová & Nečková, 2019, pp. 1087–1091). Experiences and empathetic approaches of healthcare professionals may hinder their negative attitudes towards the elderly (Podhorecka, Pyszora, et al., 2022, p. 3994). Unfortunately, negative attitudes towards older adults are still encountered among health professionals (Podhorecka, Pyszora, et al., 2022, p. 3994; Pekesen et al., 2021, pp. 82–103).

According to the data obtained in our study, it was determined that the total scores of the students' general attitudes towards the elderly (156.52 ± 17.54) were higher compared to different studies. According to this result, it is seen that the attitudes of the students in our study are more positive. In the study conducted by Oral et al. with social work students, attitude scores were 141 ± 17.88 (Oral et al., 2022, (Oral et al., 2022, pp. 1–15). In the study conducted by Sari et al. with senior nursing students, it was determined that the mean score of general attitude towards the elderly was 136.18 ± 9.17 (Baysal et al., 2019, pp. 80–87). In a study conducted by Podhorecka et al. with students from different departments, the mean attitude scale score was 131.77 ± 17.13 (Podhorecka, Husejko, et al., 2022, p. 1032487). In the study conducted by Fradelos et al. with nursing students, it was seen that the attitude scores towards the elderly were 128.84 ± 14.32 (Fradelos et al., 2022, pp. 1153–1161). In a study, it was found that additional training in gerontology and geriatrics provided to emergency nurses have positively affected their knowledge and attitudes towards aging (Scerri & Schembri, 2022, pp. 224–236). Higher scores obtained in our study suggest that students who will be active in upcoming geriatric care may develop positive attitudes during their education.

In our study, as a result in line with the expectations, it is seen that students' attitudes towards the elderly increase as the grades increase. However, different results have been obtained in the literature, regarding the relationship between the students' attitudes and the students' classes. Consistent with our study in several studies, it was observed that students' attitude scores increase with the increase of grades (Koca et al., 2020, pp. 177–187; Nochajski et al., 2009, pp. 95–104; Demir Dikmen, 2022, pp. 81–89). This result can be interpreted as the increase in the level of knowledge and experience of the students about the older adults, which they have gained during their education, increases the positive attitude towards the older adults, as well as they improve themselves in the elderly care. It is thought that this positive attitude will increase the quality of care provided by the students who will graduate from the department of gerontology.

Gender is the main factor in attitudes towards the older adults (López-Hernández et al., 2021, p. 1231). In previous studies conducted to determine the attitude towards the older adults, it was shown that there exist differences according to genders. While examining the ATE sub-scale attitudes by genders, we determined that the positive attitude scores of male students were found to be significantly higher. In some studies, it was found that male students' attitudes towards the older adults were more positive compared to our study (Nochajski et al., 2009, pp. 95–104; Lambrinou et al., 2009, pp. 617–622; Pan et al., 2009, pp. 50–55; Kavuran & Caner, 2021, pp. 89–97; Podhorecka, Husejko, et al., 2022, p. 1032487; Demir Dikmen, 2022, pp. 81–89). There are also studies, which found that women have higher positive attitudes than men (López-Hernández et al., 2021, p. 1231; Cybulski et al., 2015, pp. 580–582; Marzban, 2022, pp. 47–52). In some studies, insignificant difference was found between the gender of the students and their attitudes towards the elderly (Baysal et al., 2019, pp. 80–87; Demirtürk Selçuk & Demirbağ, 2020, pp. 37–51; Atasoy, 2020, 10–

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18;S. Koca et al., 2020, pp. 177–187; Karis Allen et al., 2021, p. 172; Veronek et al., 2020, pp. 484–490). It is thought that cultural differences and the education owned may have an impact on the formation of different results. Women are more compassionate than men, and most women take a role in the care of the older adults in the family with the influence of their culture. It is also known that they are more sensitive to the needs of the older adults in the family and develop better relations in the upbringing of girls. Therefore, they may have a more positive attitude (Tomić et al., 2021, pp. 251-260). Although the informal caregivers of the older adults in our country are mostly women, the reason why male students' attitudes towards the older adults are higher in our study may be due to the fact that they may have culture-wise been held responsible for taking care of older adults in the culture they grew up in and they consider this as a duty.

Comparing the results of our study to that of conducted by Çilingir et al. (2017, pp. 137–143), there was insignificant difference between the ATE scale total scores and the positive attitude sub-scale scores in terms of the number of siblings. However, we found that students with three or less siblings had higher mean scores in the sub-dimension of positive attitudes towards the older adults. This result is consistent with the findings of İşcan Ayyıldız and Evcimen's study (İşcan Ayyıldız & Evcimen, 2018, 14–24). The ATE scale negative attitude sub-scale scores of students with four or more siblings were found to be significantly higher. This can be explained by the fact that the students included in our study have different sociodemographic characteristics (such as age, gender, length of education, longest place of residence).

In some studies, it has been determined that the place where the students lived the longest duration was not meaningful in their attitudes towards the older adults (Baysal et al., 2019, pp. 80–87; Koca et al., 2020, pp. 177–187; Podhorecka, Pyszora, et al., 2022, p. 3994). In our study, it was determined that the ATE scale positive mean scores of the students who lived in the county for the longer duration of time were higher than those who lived in the city and village. This result coincides with the results between the place where nursing students live and the scale score in Atasoy's study (Atasoy, 2020, pp. 10–18). While older people living in rural areas experience fewer social, economic and care-related problems, older people living in urban areas experience more problems due to the difficulties of living together (intergenerational conflict, economic problems, etc.). (Bayraktar et al., 2015, pp. 68–80). In addition, older people living in urban areas are mostly directed to receive care in nursing homes rather than being cared by their families (Alquwez et al., 2018, pp. 399–407). This result suggests that more intergenerational communication in settlements with less population such as villages and county contributes to the development of positive attitudes towards older people.

In our study, a statistically significant relationship was found between living with an older adult in any period of life and ATE. In similar studies, it was determined that those who lived with an older adult in any period of life had higher positive attitude scores than those who did not (Demirtürk Selçuk & Demirbağ, 2020, pp. 37–51; Altay & Aydın, 2015, pp. 11-18; Noor et al., 2022, pp. 69–72). In two different studies, no significant relationship was found between living with an older adult in any period of life (Baysal et al., 2019, pp. 80–87; Türgay et al., 2015, pp. 267–270). It is thought that students have positive attitudes towards older adults when living with them, having mutual communication, and experiencing other adults with positive attitudes towards the same older adults.

In a study, it was determined that the students' total score of attitude towards the elderly and positive attitude sub-scale score averages were highest in mothers with primary school education (Altay & Aydın, 2015, pp. 11-18). In our study, it was also found that the attitudes of the students whose mothers were primary and secondary school graduates were more positive. The reasons for this are of multifaceted; 1) increased education level of women leads to having higher possibility of participating in a job, 2) the family structure gradually turns towards the core family, hence not living with older adults longer, 3) it may be that they could not explain to their children to communicate with the older adults and have respect for them. On the other hand, as the education level of the

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mother decreases, the reasons for negative attitudes towards older adults may be as follows. It may be that women with low education levels mostly live in large families, have no occupation, and consequently have to spend more time at home with older adults. Hence, this situation may lead to conflicts with older adults.

Empathy can be defined as a trainable and important skill provided to students in their final years of education (Gholamzadeh et al., 2018, p. 198). Empathy is an essential aspect of healthcare (Intonato, 2020, p. 2) and an essential part of high-quality healthcare, where respectable patient-centered care and services for high quality healthcare are required (Ağaçdiken & Aydoğan, 2017, pp. 122–129). Empathy is associated with a positive attitude towards the elderly (Podhorecka, Pyszora, et al., 2022, p. 3994). Employees in health care should avoid age discrimination and use their empathic skills and attitudes to deal with older adults (Fernández-Gutiérrez et al., 2022, p. 103430).

Empathy level constitutes an important component in the study of age discrimination (Podhorecka, Pyszora, et al., 2022, p. 3994). In the study conducted by Yalnızoğlu Çaka et al. with nursing and midwifery students, the mean score of BES (75.36 ± 9.06) (Yalnızoğlu Çaka et al., 2018, pp. 996–1005) was found to be above the average in accordance with our study (78.05 ± 10.19). This result suggests that the education of the students in the department of gerontology about older adults increases their empathy skills.

In some studies, when students' empathic skills were compared according to gender, it was determined that female students' empathic skills were significantly higher, which were in line with the results of our study (Baysal et al., 2019, pp. 80–87; Özer et al., 2021, pp. 359–366). Women are more successful in empathizing. This can be attributed to the fact that they are more compassionate and emotional than men. 80.8% of the students participated in our study were women, which shows parallelism with other studies in the literature (Podhorecka, Pyszora, et al., 2022, p. 3994; Koca et al., 2020, pp. 177–187), where it is thought that this situation may affect the results obtained.

It was observed that the empathy level of the students having mothers with a university or higher education is higher than those of having mothers with a lower education level. The empathy level of the students from illiterate and literate mothers was found to be the lowest. Similarly, in a study conducted by Hasan et al. with medical students, it was found that students whose mothers had a higher education level had a higher level of empathy (Hasan et al., 2013, pp. 385–389). Similar results have been also found in other studies incorporating medical students, where researchers have tried to explain this result with 'attachment/affiliation theory', which relies on the role of the mother as the child's primary caregiver and guide for early age experiencing of the child (Ainsworth, 1985a, pp. 792–812; Ainsworth, 1985b, pp. 771–791).

Study Limitations

Gerontology Departments, which constitute the research sample, are limited in number in our country. The limitation of this study is that it was conducted only in the Gerontology Department of a university. Collecting the research data online (Google form) can be considered as a limitation. The fact that some students did not volunteer to participate in the study is another limitation affecting the number of participants.

Conclusion

In our study, it was determined that the gerontology department students had high attitudes and empathic skills towards the older adults. Classes and gender were found to be effective on attitudes towards the older adults, where the gender has an impact on empathic skills. In addition, it was observed that those living with the older adults had a more positive attitudes towards the older adults. Studies conducted with different students and profession groups, dealing with attitude towards the older adults, emphasize the importance of education. It is thought that today's changing family structure causes young people to be more reluctant to live and spend time with the older adults. With the recent increase in the elderly population, it is important that health professionals, who aim serving the older adults in the future, need to have sufficient knowledge and experience. As

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a result of our research, it can be said that the Gerontology students have sufficient knowledge about the older adults. Creating opportunities for older and young adults to spend time together and get familiar with each other is of great importance in terms of a better intergenerational communication. In the light of today's technological developments, running gerontology courses by using active learning methods (simulation and role-playing) can play an active role in developing and/or improving empathic skills.

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