

Original Article

Ageism Based on the Views of Nursing Students: Case of Turkey**Secil Gulhan Guner, PhD, RN**

Assistant Professor Dr. Karadeniz Technical University, Faculty of Health Sciences, Department of Internal Medicine Nursing, Trabzon, Turkey

Sibel Serce, PhD, RN

Assistant Professor, Nursing Department, Faculty of Health Sciences, Gaziantep University, Gaziantep Turkey.

Ozlem Ovayolu

Professor Dr. Nursing Department, Faculty of Health Sciences, Gaziantep University, Gaziantep Turkey.

Nimet Ovayolu

Professor Dr. Nursing Department, Faculty of Health Sciences, Sanko University, Gaziantep Turkey.

Correspondence: Assistant Professor Secil Gulhan Guner, PhD, RN, Karadeniz Technical University, Faculty of Health Sciences, Department of Internal Medicine Nursing, Trabzon, Turkey E-mail: secilgulhan@gmail.com secilgulhan@ktu.edu.tr**Abstract****Objective:** This study was conducted to examine the views of second and fourth-year nursing students, studying in a Faculty of Health Sciences in Turkey, about ageism.**Methodology:** While the population of this descriptive and cross-sectional study consisted of 340 second and fourth-year students in the spring term of the 2019-2020 academic year, the sample consisted of 209 students who agreed to participate in the study. A "Questionnaire", prepared by the researchers, and "Positive and Negative Ageism Scale" were employed to collect data. The data were analysed using descriptive statistics, the Mann-Whitney U test, and the Kruskal-Wallis test.**Results:** 96.2% of the students were in the age range of 20 and 24 years, 71.3% were female, and 55% were the second-year students. The positive ageism mean score of the students was 45.67 ± 6.97 , the negative ageism mean score was 23.21 ± 6.44 , and the positive and negative ageism total mean score was 68.88 ± 8.05 . While the grade of the students and their willingness to care for an elderly patient in the clinic are correlated with positive ageism score, gender and their willingness to care for an elderly patient in the clinic were correlated with negative ageism score ($p < .05$).**Conclusions:** As a consequence, it was found that the majority of nursing students had high scores from positive ageism. Therefore, it is recommended to raise awareness by including elective courses on the elderly to the nursing undergraduate curriculum in order to eliminate negative attitudes toward the elderly.**Keywords:** Nursing, student, ageism**Introduction**

Life expectancy is prolonged worldwide and, in Turkey, due to scientific and technological advancements in health, and thus, the prevalence of the elderly population is growing. According to 2020 data, the global rate of individuals aged 65 and over is 9% (T.R. Ministry of Development, 2018). In Turkey, the rate of the elderly population has reached 9.7% according to the data of 2021. This rate is anticipated to reach 12.9 % in

2030 and 16.3 % in 2040 (Turkish Statistical Institute [TSI], 2021). Today, as the elderly population grows, the notion of ageism, a multidimensional term, has begun to come into prominence. Robert Butler, president of the American National Institute on Aging, first utilized the term ageism in 1969 to define prejudice and discrimination against the elderly (Akdemir et al., 2007). While ageism is perceived as negative towards the elderly, it also includes positive ageism (Altun & Demirel, 2020).

Negative ageism covers conditions such as reduced productivity, increased health problems, marginalization by society, and exclusion from the social environment. As a result, the society views the elderly as being dependent and a burden (Gething et al., 2004; Altay & Aydin 2015). Positive ageism also includes characteristics, such as wisdom, dignity, and reliability. Socio-cultural structures, traditions and customs of societies are reflected on their attitudes and behaviours in different areas and this situation is important in developing attitudes and behaviours of future generations towards the elderly. However, it has become widely recognised in recent years that the ageism, particularly in professional and family life, social and sexual life, and also in health care services (Vefikulucay 2008; Karadag et al., 2012; Bulut & Cilingir 2016). As known, nurses are healthcare professionals who provide care for the elderly in health care services (Mezey et al., 2005; Bulut & Cilingir 2016). Accordingly, nurses have roles to undertake when caring for the elderly, and integration of this circumstance into the profession begins with the undergraduate education period. Several studies done with nursing students in the literature reported that students had negative attitudes toward the elderly and were unwilling to work with them after graduation (Moyle 2003; McLafferty & Morrison 2004; Gallagher et al., 2006). On the contrary, studies emphasising that nursing students have positive attitudes toward the elderly have also been found in the literature in recent years (Yilmaz & Ozkan 2010; Guven et al., 2012; Karadag et al., 2012; Altay & Aydin 2015; Olak & Tumer 2018). Given the global and national growth of the elderly population, the views of nursing students, who are prospective healthcare professionals, on ageism can be effective in their attitudes towards the elderly after graduation (Ozkan & Bayoglu 2011). Based on those grounds, this study was conducted to examine the views of second and fourth-year nursing students, studying in a Faculty of Health Sciences in Turkey, about ageism.

Accordingly, this study sought answers to the following questions:

- What are the views of nursing students about care for the elderly in the clinic?
- How are the attitudes of nursing students towards positive and negative ageism?
- What are the factors that influence the positive and negative ageism of nursing students?

Methodology

Design and Participants: This descriptive and cross-sectional study was conducted in a state university, Faculty of Health Sciences, Department of Nursing. The population of the study consisted of 340 second- and fourth-year students in the spring term of the 2019-2020 academic year. The study included only second and fourth-year students since they had the opportunity to care for more geriatric patients throughout their clinical training. It was aimed to reach the entire population and the sample consisted of 209 second- and fourth-year students who agreed to participate in the study. The rate of participation in the study was determined to be 61.4%.

Data Collection Tools: The data were collected by using a "Questionnaire", prepared by the researcher to determine some characteristics of the students, and the "Positive and Negative Ageism Scale".

Questionnaire: It includes students' socio-demographic characteristics and their views about ageism.

Positive and Negative Ageism Scale (PNAS): It is a two-dimensional assessment tool developed to assess university students' attitudes toward ageism. The subscale of positive ageism assesses the positive attitude of university students towards the elderly. This subscale has 13 items. The highest and lowest scores of this subscale are 65 and 13, respectively. The higher scores indicate a high level of positive attitude towards the elderly. The negative ageism, the other subscale of the scale, assesses the negative attitude of university students towards the elderly. This subscale has 10 items. The highest and lowest scores of this subscale are 50 and 10, respectively. The high score attained through reverse scoring indicates that the level of negative attitudes towards the elderly is low. The Cronbach's Alpha coefficient in the original version of the scale is .80 (Yurttas & Sarikoca 2018). The overall Cronbach's Alpha coefficient for this study was found to be .807.

Use of Data Collection Tools: The researcher collected data through face-to-face interviews at a time convenient for the students. The researchers stayed in the classroom while the students were filing out the data collection form individually. It took around 15-20 minutes to complete the data collection form. It was ensured that the forms were thoroughly filled out by the students.

Analysis: The arithmetic mean, standard deviation, minimum and maximum values, frequency, and percentage were utilized to assess the data. The Kolmogorov Smirnov test was used to determine the compatibility of data to normal distribution. The Mann Whitney U test was used to compare variables that were not distributed normally across two groups, while the Kruskal Wallis and All Subset Multiple Comparison tests were used to compare more than two groups.

Ethical Issues: Permission from the Department Head of the Faculty, approval from the Clinical Trials Ethics Committee (Date/No:2019/408), permission from the authors who assessed the validity and reliability of the scale for using it in the study and lastly the students participating in the study were obtained.

Results

The results about the comparison of some characteristics of the students with the subscales of PNAS and the overall mean score

It was determined that 96.2% of the nursing students were between the ages of 20-24, 71.3% of them were female, 76.1% were Anatolian high school graduates, 47.8% lived in a metropolitan city, 77.5% had a nuclear family, 55% were the second-year students, and 46% of them resided in state dormitories. 55.5% of nursing students reported that they thought to pursue a career as a clinician after graduation, 53.6% stated that they had previously lived with an elderly in their family and 34% of them were currently living with an elderly in their family, 84.7% reported that they involved family elders in the process while taking decisions, 84.2 % said they provided previously care to an elderly patient in the clinic, and 78.5% stated that they wanted to provide care for an elderly in the clinic.

A correlation was determined between gender variable and their willingness to provide care to an elderly patient in the clinic and their negative ageism subscale, as well as class and their willingness to provide care for an elderly patient in the clinic and the positive ageism subscale ($p < .05$).

No correlation was determined between the positive ageism subscale and age, gender, permanent and current residence, and family type, and between negative ageism subscale and age, class, permanent and current residence, and family type ($p > .05$). Also, no correlation was found between the overall score on PNAS and age, gender, class, permanent and current residence, and family type ($p > .05$) (Table 1).

The Results of the Students for Providing Care for the Elderly in the Clinic

Table 2 presents the views of the students who participated in the study on the reasons for providing care to the elderly in the clinic. 62.2 % of the students believed that the elderly needed care, 56.0 % said they should be respected, 47.8 % stated that caring for the elderly made them happy, 34.4 % stated that caring for the elderly boosted their professional satisfaction, 25.8 % indicated that they believed they were capable of caring for the elderly, and 19.1 % stated that they wished to work with the elderly in the clinic as they believed the elderly were more tolerant than other persons.

The mean score of students for the positive ageism subscale of PNAS was 45.67 ± 6.97 , their mean score for the negative ageism subscale was 23.21 ± 6.44 , and the overall mean score was 68.88 ± 8.05 .

Table 1: Comparisons of students’ characteristics with PNAS sub-dimensions and total scores (n=209)

Characteristics	n	%	Positive Ageism	Negative Ageism	PNAS total score	
			subscale X±S.D.	subscale X±S.D.	X±S.D.	
Age**	20-24 age	201	96.2	45.61±6.93	23.17±6.45	68.79±8.08
	25 age and above	8	3.8	47.25±8.34	24.00±6.56	71.25±7.1
Sex **	Female	149	71.3	46.03±6.73	22.56±5.98	68.59±7.38
	Male	60	28.7	44.78±7.52	24.82±7.28	69.60±9.54
Class**	Second grade	115	55.0	44.82±6.78	23.72±6.12	68.54±8.09
	Fourth grade	94	45.0	46.72±7.10	22.57±6.80	69.30±8.03
				U=4476.0 p=.032*	U=4742.5 p=.127	U=4919.5 p=.264
Permanent place of residence***	Metropolitan	100	47.8	45.36±7.33	23.50±6.68	68.86±8.34
	City	52	24.9	45.15±6.88	23.83±7.04	68.98±8.85
	District	38	18.2	46.71±7.42	21.92±5.29	68.63±7.44
	Village	19	9.1	46.68±3.74	22.53±5.56	69.21±5.51
Area in which he/she intends to work after graduation**	Clinician	116	55.5	44.90±7.14	23.48±6.64	68.39±8.02
	Academician	93	44.5	46.32±6.82	23.00±6.32	69.32±8.11
				U=4571.5 p=.072	U=5087 p=.545	U=4824.5 p=.225
Type of school he/she graduated from***	Anatolian high school	159	76.1	45.50±6.96	23.48±6.63	68.89±8.51
	Science high school	13	6.2	43.23±7.89	24.69±5.00	67.92±5.69
	Private high school	9	4.3	44.33±7.79	20.89±4.80	65.22±7.20
	Health job high school	7	3.3	45.71±3.14	23.29±7.29	69.00±7.87
	Other	21	10.0	49.10±6.44	21.14±5.91	70.24±5.89
			X ² =7.125 p=.129	X ² =6.314 p=.177	X ² =3.187 p=.527	

Stay***	At government dormitory	97	46.4	45.82±6.89	23.10±5.82	68.93±7.07
	At home with my family	86	41.1	45.70±7.03	23.60±7.34	69.30±9.29
	At home with my friend	10	4.8	43.10±5.23	23.70±5.53	66.80±7.22
	At private dormitory	8	3.8	50.00±4.89	19.88±5.46	69.88±5.11
	At apartment	8	3.8	42.50±9.63	22.88±5.54	65.38±8.74
Family type***	Nuclear family	162	77.5	45.73±6.67	23.31±6.72	69.04±8.18
	Extended family	43	20.6	45.93±8.18	22.79±5.63	68.72±7.83
	Broken family	4	1.9	40.75±3.40	23.25±2.50	64.00±2.82
The status of living with older people before**	Yes	112	53.6	45.75±6.82	23.17±6.15	68.92±7.52
	No	97	46.4	45.59±7.18	23.25±6.79	68.84±8.66
The status of caring for older people**	Yes	176	84.2	45.72±7.03	23.48±6.61	69.20±8.40
	No	33	15.8	45.42±6.74	21.73±5.33	67.15±5.68
The status of wanting to care for older patient in the clinic**	Yes	164	78.5	46.62±6.24	22.17±5.94	68.79±6.74
	No	45	21.5	42.22±8.37	26.98±6.85	69.20±11.75
Presence of older people in the family**	Yes	71	34.0	46.56±7.58	22.52±6.81	69.08±9.93
	No	138	66.0	45.22±6.62	23.56±6.24	68.78±6.93
Involving older people in the decision-making process**	Yes	177	84.7	46.10±6.81	23.08±6.72	69.19±8.22
	No	32	15.3	43.31±7.49	23.88±4.66	67.19±6.91
				X ² =6.381 p=.172	X ² =1.946 p=.746	X ² =1.955 p=.744
				X ² =4.009 p=.135	X ² =.247 p=.884	X ² =3.086 p=.214
				U=5235.5 p=.652	U=5401.0 p=.943	U=5211.0 p=.612
				U=2763.0 p=.658	U=2466.0 p=.169	U=2503.5 p=.208
				U=2493.5 p=.001*	U=2043.0 p<.000*	U=3568.5 p=.735
				U=4468.0 p=.297	U=4244.5 p=.113	U=4717.0 p=.660
				U=2281.5 p=.080	U=2414.5 p=.184	U=2544.0 p=.360

Mann Whitney U test, *Kruskal Wallis test

Table 2: Distribution of students' views on the reasons for giving care to the older people in the clinic

Reasons for wanting to care for the older patient in the clinic*	Yes		No	
	n	%	n	%
Older people need care	130	62.2	79	37.8
Older people should be respected	117	56.0	92	44.0
Caring for the older people makes me happy	100	47.8	109	52.2
Caring for the older people increases professional satisfaction	72	34.4	137	65.6
I consider myself competent in caring for the older people	54	25.8	155	74.2
Older people are more understanding than other individuals	40	19.1	169	80.9

*n folded.

Table 3: PNAS sub-dimensions and total score distribution of students (n=209)

PNAS	X±S.D.	Median	Min-Max
Positive Ageism	45.67±6.97	46.0	19-65
Negative Ageism	23.21±6.44	22.0	10-50
Total score	68.88 ±8.05	68.0	43-115

Discussion

Nowadays, the notions and issues related to elderliness and ageing are debated concurrently with the growing of elderly population due to the prolongation of life expectancy. Ageism is one of the notions that has been discussed in both national and international literature on this issue. According, it is important to determine the perspectives of nursing students, who are healthcare professional candidates, for the notion of ageism that is evaluated on both positive and negative dimensions. This study aims to use PNAS to assess the positive and negative attitudes of nursing students regarding ageism and to contribute to the literature. The studies conducted with nursing students in the literature have reported that the students' attitudes toward ageism are positive (Güven et al., 2012; Karadağ et al., 2012; Unsar et al., 2012; Altay & Aydın 2015). However, in meta-analysis study (Kite et al., 2005) and Kose et al., (2015) (Kose et al., 2015) concluded that attitudes of young people toward the elderly were negative. This study reported that attitudes of nursing students towards ageism were generally positive (68.88±8.05). These different results can be explained by the socio-cultural structures of societies, their traditions, customs, development of opposite attitudes and behaviours towards the elderly induced by the attitudes and behaviours in different fields, as well as by the

decreased interactions with the elderly. This study found that the positive ageism subscale mean score of the students was 45.67±6.97, as well as their negative ageism subscale mean score was 23.21± 6.44. The literature includes studies assessing the ageism of students using different ageism scales and reporting that students in health care have negative attitudes toward the elderly (Cheong et al., 2009; Kose et al., 2015), as well as the studies that indicate neutral or positive attitudes (Soyuer et al., 2010; Yılmaz & Özkan 2010; Karadağ et al., 2012; Altay & Aydın 2015; Salman et al., 2018). Therefore, the results of this study are similar to the studies indicating that there is positive ageism towards the elderly. This may be explained by the fact that the students were currently living with an elderly in their family and more than half of them had previously lived with an elderly in their family also, they involved family elders in the process while taking decisions. These data are further supported by the fact that the traditional family structure has been replaced by a nuclear family, the traits of respecting and appreciating the elderly, as well as benefiting from their wisdom and experience continue in Turkish society due to changing living conditions. The literature emphasizes that some factors may affect ageism (Kurtkapan 2019). Güven et al., (2012) detected that female university students exhibited a positive attitude toward the elderly in their study with university

students (Güven et al., 2012). However, in their studies, Olak & Tümer (2018), Altay & Aydın (2015), and Unsar et al., (2015) examined the attitudes of nursing students towards the elderly and determined that the ageism attitude scale mean scores of female students were lower than scores of male students and there was no significant difference between the groups. The gender variable and the negative ageism subscale were found to be statistically significantly correlated in this study. This significance was determined to be attributed to female students. The studies, demonstrating that the gender variable is effective in attitudes toward ageism, have reported that the caregiving role of women in Turkish culture is higher than that of men (Zeyneloğlu, 2013). The study determined that there was a statistically significant correlation between the nursing students' willingness of nursing students to provide care to the elderly in the clinic and negative and positive ageism subscales. In addition, more than half of the students included in the study determined that providing care for the elderly did not make them happy, they did not increase their professional satisfaction, did not perceive themselves as capable of caring for the elderly, and the elderly were less tolerant than other individuals and this affected negative ageism. Some studies conducted with nursing students have reported that students do not want to work with the elderly after graduation due to their negative attitudes, and they have a negative attitude toward the elderly (McLafferty & Morrison 2004; Gallagher et al., 2006). However, another study identified that there was no statistically significant difference between the willingness of students to work with the elderly and their attitude towards ageism scores (Zaybak et al., 2017). Yılmaz et al., (2010) conducted a study with nursing students and found that most of the students wanted to work with the elderly after graduation, but their willingness with the elderly after graduation did not affect their attitude toward ageism (Yılmaz & Özkan 2010). Another study with medical school students revealed that nearly one-third of the students would prefer to work in the geriatrics department after graduation (Chua et al., 2008).

In a study with nursing students, the mean score on the sub-scale for ageism and negative ageism subscale total mean score toward the elderly was found to be lower for first-year nursing students compared to fourth-year nursing students (Demiray & Dal 2017). There was a statistically

significant correlation between the class in which the students attended and the positive ageism subscale in this study. This significance was seen to be attributed to fourth-year nursing students. These results are similar to the findings of some studies in the literature (Vefikuluçay & Terzioğlu 2011; Altay & Aydın 2015). However, two separate studies of medical students found that fourth-year students had a more positive attitude toward the elderly than first-year students (Wilkinson et al., 2002; Hughes et al., 2008). Another study in this field reported that the ageism attitude score of first-year nursing students was higher than fourth-year students and that the difference was statistically significant (Olak & Tümer 2018). These different results may be associated with nursing students practice in different clinics as their class level increases, as well as different curricula, and the student's experience with the elderly.

Conclusions: It was found that the positive ageism score of nursing students was high, their negative ageism score was low, and the positive ageism subscale scores of second and fourth-year nursing students were higher than those for negative ageism subscale. A correlation was determined between the class of the students and their willingness to provide care for an elderly patient in the clinic and their positive ageism score, and between gender and their willingness to provide care for an elderly patient in the clinic and negative ageism score. Accordingly, it can be recommended to include topics related to ageism in the curriculum of the nursing department and to annex institutions that provide geriatric care to clinical practice areas.

Acknowledgements: The authors would like to thank students who participated in this study.

References

- Akdemir, N., Cinar, F.I., & Gorgulu, U. (2007). Perception of the elderly and ageism. *Turkish Journal of Geriatrics*, 10,215-222.
- Altay, B., & Aydın, T. (2015). Evaluation of nursing students' attitudes towards ageism. *Journal of Education and Research in Nursing*, 12(1), 11-18.
- Altun, A., & Demirel, B. (2020). Attitudes of university students towards ageism: The case of Keskin Vocational School. *Manas Journal of Social Studies*, 9(1), 423-434.
- Ayten, Z. A., Özdemir, H., Güneş, U., et al. (2017). Examination of nursing students' attitudes towards ageism. *Journal of Ege University Faculty of Nursing*, 33(1), 21-32.

- Bulut, E., & Cilingir, D. (2016). Ageism and its reflections on nursing care. *TAF Preventive Medicine Bulletin*, 15(5), 446-449.
- Cheong, S.K, Wong, T.Y., Koh Gerald, C.H.. (2009). Attitudes towards the elderly among Singapore medical students. *Annals of the Academy of Medicine Singapore*,38, 857-861.
- Chua, M.P., Tan, C.H., Merchant, R. et al. (2008). Attitudes of first-year medical students in Singapore towards older people and willingness to consider a career in geriatric medicine. *Ann Acad Med Singapore*, 37(11), 947- 951.
- Demiray, T., & Dal Yilmaz, U. (2017). Opinions of the nursing students on ageism. *Istanbul Med J*, 18, 7-12.
- Gallagher, S., Bennett, K.M., & Halford, J.C. (2006). A Comparison of acute and longterm health-care personnel's attitudes towards older adults. *International Journal Nursing Practice*, 12:273-279.
- Gething, L., Fethney, J., McKee, K., et al. (2004). Validation of the reactions to ageing questionnaire: assessing similarities across several countries. *J Gerontol Nurs*, 30:47-54. <http://dx.doi.org/10.3928/0098-9134-20040901-09>
- Güven S.D., Banana G.U. & Ertürk N.E. (2012) University students' attitudes towards ageism and the relationship of these attitudes with some variables. *Anatolian Journal of Nursing and Health Sciences*, 15(2), 99-105.
- Hughes, N.J., Soiza, R.L., Chua, M. et al. (2008). Medical student attitudes toward older people and willingness to consider a career in geriatric medicine. *Journal of the American Geriatrics Society*, 56(2),334-338.
- Karadag, E., Vardar Inkaya, B. & Karatay, G. (2012). Attitudes of nursing students towards ageism. *Journal of Ege University Faculty of Nursing*, 28, 31-40.
- Vefikuluçay, D. (2008). Attitudes of university students towards ageism. PhD thesis, Hacettepe University Institute of Health Sciences, Obstetrics and Gynecology Nursing Program, Ankara.
- Kite, M. E., Stockdale, G. D., Whitley Jr, B. E., et al. (2005). Attitudes toward younger and older adults: An updated meta-analytic review. *Journal of social issues*, 61(2), 241-266.
- Kose, G., Ayhan, H., Tastan, S., et al. (2015). Determining the attitudes of students studying in different departments in the field of health towards ageism. *Gulhane Medical Journal*, 57(2), 145-151.
- Kurtkapan, H. (2019). Attitudes of young people towards ageism: The case of Nevşehir. *Nevşehir Hacı Bektaş Veli University Journal of SBE*, 9(1),220-237.
- McLafferty, L., & Morrison, F. (2004). Attitude towards hospitalized older adults. *J Adv Nurs*. 47,446-453.
- Mezey, M., Boltz, M., Esterson, J., et al. (2005). Evolving models of geriatric nursing care. *Geriatric Nurs*, 26(1),11-15
- Moyle, W. (2003). Nursing students perceptions of older people continuing society's myths. *Australas J Adv Nurs*, 20:15-21.
- Olak, A. and Turner, A. (2018). Attitudes of 1st and 4th grade nursing students towards ageism. *OPUS – International Journal of Society Studies*, 8(14), 53-67.
- Ozkan, Y. & Bayoglu, A. S. (2011). Ageism: College students' perceptions about older people. *e-Journal of New World Sciences Academy*, 6(1), 107-115.
- Salman, M., Gulcek, E., Aylaz, R. et al. (2018). Evaluation of nursing students' attitudes towards the elderly. *Journal of Research on Elderly Issues*, 11(2),1-7.
- Soyuer, F., Unalan, D., Guleser, N., et al. (2010). The attitudes of health vocational school students towards ageism and the relationship of these attitudes with some demographic variables. *Mersin University Journal of Health Sciences*, 3,20-25.
- T.R. Ministry of Development Eleventh Development Plan (2019-2023). [Online]. Aging, Special Specialization Commission Report Ankara 2018. Retrieved from <https://www.sbb.gov.tr/wpcontent/uploads/2020/04/YaslanmaOzelIhtisasKomissyonRaporu.pdf> (Accessed 2 Jan 2022)
- Turkish Statistical Institute (TUIK). [Online]. Address based population registration system results 2021. Retrieved from <https://data.tuik.gov.tr/Bulten/Index?p=Adrese-Dayali-Nufus-Kayit-Sistemi-Sonuclari-2021-45500&dil=1> (Accessed 4 Jan 2022)
- Unsar S., Erol O., Kurt S., et al. (2012). Examination of nursing students' attitudes towards ageism. *Cumhuriyet Nursing Journal*, 1, 12-13.
- Vefikuluçay, D., & Terzioglu, F. (2011) Development and psychometric evaluation of ageism attitude among the university students. *Turkish Journal of Geriatrics*,14(3), 259-268.
- Wilkinson, T.J., Gower, Ş., Sainsbury, R. (2002). The earlier, the better: the effect of early community contact on the attitudes of medical students to older people. *Medical Education*, 36(6), 540-542.
- Yilmaz, E., & Ozkan S. (2010). Attitudes of nursing students towards ageism. *Maltepe University Journal of Nursing Science and Art*, 3, 35-53.
- Yurtaş, S., & Sarikoca, E. (2018). Validity and Reliability study of the Positive and Negative Age Discrimination Scale (PNYAS). *Journal of Atatürk University Social Sciences Institute*, 22, 1977-1992.
- Zeyneloglu, S. (2013). A new concept in the equality of women and men: gender, *Journal of Health and Nursing*, 1, 22-23.