



University Students' Attitudes Towards Age Discrimination And Affecting Factors In Turkey: A Systematic Review

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Abstract

Keywords:

Ageism, Young people, Aged people, University students, Systematic review.

The discriminatory attitudes towards older people is a global problem. The aim of the study is to reveal university students' attitudes towards the aged people in Turkey and the affecting factors. A systematic review was conducted on articles published between 2018-2022 in January, 2023. This study was conducted and the results were reported following the PRISMA checklist. Google Scholar, PubMed, and Scopus databases were searched. The risk of bias was assessed using the Newcastle-Ottawa Scale. It was identified 57 eligible studies out of 210. Most studies were conducted with nursing students (14 studies), followed by elderly care program students (6 studies). The most commonly used scales are Ageism Attitude Scale (AAS) and Kogan Attitudes Toward Old People Scale (KAOPS) (respectively 32 and 15 studies). In most of the studies, students' attitudes towards the aged people were found to be positive (39 studies). The ageism level of female students is lower compared to that of males. The attitudes of students living with an aged person, having a large family structure and living in the countryside, towards old age are more positive. Furthermore, with regard to the results obtained from the studies, it can be stated that age is not considered as a determining factor. Students with a low level of ageism have more positive insight concerning working with older people in the future. University students in Turkey generally have low ageism. However, it is possible to mention that ageism is influenced by the individual characteristics of students.

Özet

Anahtar Kelimeler:

Yaş ayrımcılığı,
Gençler, Yaşlılar,
Üniversite
öğrencileri,
Sistemantik inceleme,

Yaşlılara yönelik ayrımcı tutumlar küresel bir sorundur. Bu araştırmanın amacı Türkiye'de üniversite öğrencilerinin yaşlılara yönelik tutumlarını ve etkileyen faktörleri ortaya koymaktır. Ocak 2023'te 2018-2022 yılları arasında yayınlanan makaleler üzerinde sistemantik bir inceleme yapıldı. Çalışmanın yürütülmesinde ve sonuçların raporlanmasında PRISMA kontrol listesi takip edildi. Google Akademik, PubMed ve Scopus veri tabanları tarandı. Önyargı riski Newcastle-Ottawa Ölçeği kullanılarak değerlendirildi. Toplam 210 çalışmadan 57'si uygun çalışma olarak belirlendi. Çalışmaların çoğu hemşirelik öğrencileriyle (14 çalışma), ardından yaşlı bakımı programı öğrencileriyle (6 çalışma) uygulanmıştır. En sık kullanılan ölçekler Yaşlı Ayrımcılığı Tutum Ölçeği (YATÖ) ve Kogan Yaşlılara Yönelik Tutum Ölçeği'dir (KAOPS) (sırasıyla 32 ve 15 çalışma). Araştırmaların çoğunda öğrencilerin yaşlılara yönelik tutumları olumlu bulunmuştur (39 çalışma). Kız öğrencilerin yaş ayrımcılığı düzeyi erkeklere göre daha düşüktür. Yaşlı biriyle birlikte yaşayan, geniş aile yapısına sahip olan ve kırsal kesimde yaşayan öğrencilerin yaşlılığa yönelik tutumları daha olumludur. Ayrıca çalışmalardan elde edilen sonuçlara bakıldığında yaşın belirleyici bir faktör olarak dikkate alınmadığı ifade edilebilir. Yaş ayrımcılığı düşük düzeyde olan öğrencilerin gelecekte yaşlı insanlarla çalışmaya ilişkin daha olumlu içgörüleridir. Türkiye'deki üniversite öğrencilerinde genel olarak düşük yaş ayrımcılığı görülmektedir. Ancak yaş ayrımcılığının öğrencilerin bireysel özelliklerinden etkilendiğini söylemek mümkündür.

INTRODUCTION

Ageism being defined as “stereotypes, prejudice and discrimination directed towards people on the basis of their age” in the WHO report, is a significant social problem today (WHO, 2021; Ha and Kim, 2021). Ageism is the negative perception of individuals as "too old" or "too young" to do anything or to deal with anything (Officer et al., 2020). Although it can affect individuals of all ages, its manner against older person is more highlighted, and it is the subject of academic studies in this respect (Officer et al., 2020; de la Fuente-Núñez et al., 2021).

There has been an increase in the proportion of the older aged population globally in recent years. It is also predicted that the number of individuals aged 65 and over will reach 2.1 billion by 2050 (Heckemann et al., 2022). As the older aged population increases, social and cultural problems related to older adults are emerging in many countries. One of these problems is discrimination against the aged people (Ha and Kim, 2021). Older adults are often perceived to be sick, lonely, bored, irritable, angry, incompetent and living in poverty (Cooney et al., 2021). However, owing to the loss of capacity originated from aging and numerous chronic diseases they experience, the aged people are perceived as "weak" individuals who need constant support and care (Ha and Kim, 2021). All these negative perceptions regarding old age lead to discrimination against the aged people. A theory in the literature argues that some people have negative attitudes towards aged individuals since they associate old age with death and want to avoid death-related issues and keep death away from themselves (Dahlke and Hunter, 2022). With regard to another perspective, young people's perceptions of the aged people are negative as they believe that the public resources, financial sources, and opportunities allocated to the aged people are actually supposed to be reserved for them (Fukase et al., 2021).

Prejudices towards older people may prevent them from participating in working life and recreational activities, and even force them into social isolation (Donizzetti, 2019; Kim et al., 2020a). Ageism results in various harms, disadvantages, and injustices, including age-based health inequities and poorer health outcomes, and negative impact on quality of health care received (Ayalon and Tesch-Römer, 2018; Burnes et al., 2019). Besides, being exposed to such discrimination can have negative impacts on psychological wellbeing (Burnes et al., 2019). Self-bias, low self-esteem, depression, anxiety symptoms and even suicide

may be observed in older individuals who are exposed to discrimination (Lou et al., 2013; Lyons et al., 2018).

In modern societies that are rapidly developing, urbanization and industrialization are thought to make the status of the aged people in the society decrease (Kim et al., 2021). This situation prepares the ground for ageism. Ageism is highly influenced by the cultural structure of the countries. In some countries, attitudes towards older people are generally positive, while in other countries these attitudes can be quite negative (Wilson et al, 2019; López-Hernández et al, 2021). On the other hand, another factor being as important as culture is the demographic structure of the country. It is even possible to consider that culture and demography are very closely related although they seem different in terms of age discrimination (Ng and Lim-Soh, 2021). Thus, it may be misleading to make a single judgment by scrutinizing ageism levels globally. Rather, examining the rate and causes of ageism within communities with different demographic and cultural structures can help to obtain comparable results.

Turkey has experienced a social and socio-demographic change in recent years. The proportion of individuals aged 65 and over in the Turkey's population is low (9.7%) compared to many developed countries; however, it is expected to be increased in the coming years (TÜİK, 2022). The family structure has become smaller and even the number of people living alone has increased, neighborhood and kinship relations have weakened and the rate of urbanization has increased (Guduk and Ankara, 2022). All these issues have weakened the intergenerational relationship. In this study, it is aimed to reveal university students' attitudes towards the aged people in Turkey and the affecting factors. It is hoped that the findings of this study will contribute to the development and expansion of intervention programs to struggle with ageism.

METHODS

This systematic review was conducted and the results were reported following the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) checklist (Page et al., 2021).

Search Strategy and Study Selection Process

Google Scholar, PubMed, and Scopus databases were searched in this systematic review study to investigate university students' attitudes towards the aged people in Turkey and the affecting factors in January, 2023. In both English and Turkish languages, ("ageism" OR "age discrimination") AND ("university student" OR "student") AND ("Turkish" OR "Turkey" OR "Türkiye") keywords are used. The publication year is limited to the last five years (2018 and later).

Databases search were done by two researchers (OG and OO). Duplicates were excluded from studies accessed independently by the same researchers. Then, the titles and summaries of the studies were read and the ones appropriate for the purpose of the study were evaluated. The full text of potential studies has been reached.

Eligibility Criteria

Studies satisfying the specified criteria were included. The inclusion criteria for studies were as follows:

- The research studies conducted in Turkey
- The studies written in Turkish or English
- The studies universe-sample group of which is students studying at universities in Turkey

- The studies using a scale with proven validity and reliability to measure attitudes towards the aged people
- The studies published in the last five years (2018 and after) measuring the university students' attitudes towards the aged people and investigating the affecting factors

The exclusion criteria for studies were as follows:

- The studies which did not have the full text available
- The studies which were qualitative, systematic reviews, case reports, meeting reports
- The studies conducted outside of Turkey
- The studies not conducted with university students
- The studies with a sample of less than 100 students

Data Extraction

A Microsoft Excel form created by the researchers was applied for data extraction. This form comprises the study year, study type, author/s, heading, language of publication, purpose of study, study universe, sample, ageism scale used and findings (gender, age, class, faculty/department, place of residence, family type, education status of parents, living with the aged people the desire to work with an aged individual, the desire to live with parents). The original or Turkish version of each scale used in the studies examined was reached, and the attitude the test results expressed was doublechecked.

Risk of Bias Assessment

Two reviewers (OG and OO) independently evaluated and rated the included reviews. The risk of bias was assessed using the Newcastle-Ottawa Scale, which being adapted with an overall quality score ranging from 0 (minimum) to 9 (maximum) (Modesti et al., 2016). For each article, the following aspects of the risk of bias were considered: 1) selection, 2) comparability, and 3) exposure. The articles with scores of ≥ 6 represented a low risk of bias.

RESULTS

Search Results Summary

As a result of scanning the databases, 210 studies were reached. After removing the duplicate and irrelevant studies, the headings and abstracts of the remaining 102 studies were read and those (21 studies) that did not meet the study criteria were excluded. The full text of the remaining 81 studies was read and the risk of bias assessment was made. At this stage, 24 studies were removed and 57 studies remained (Figure 1).

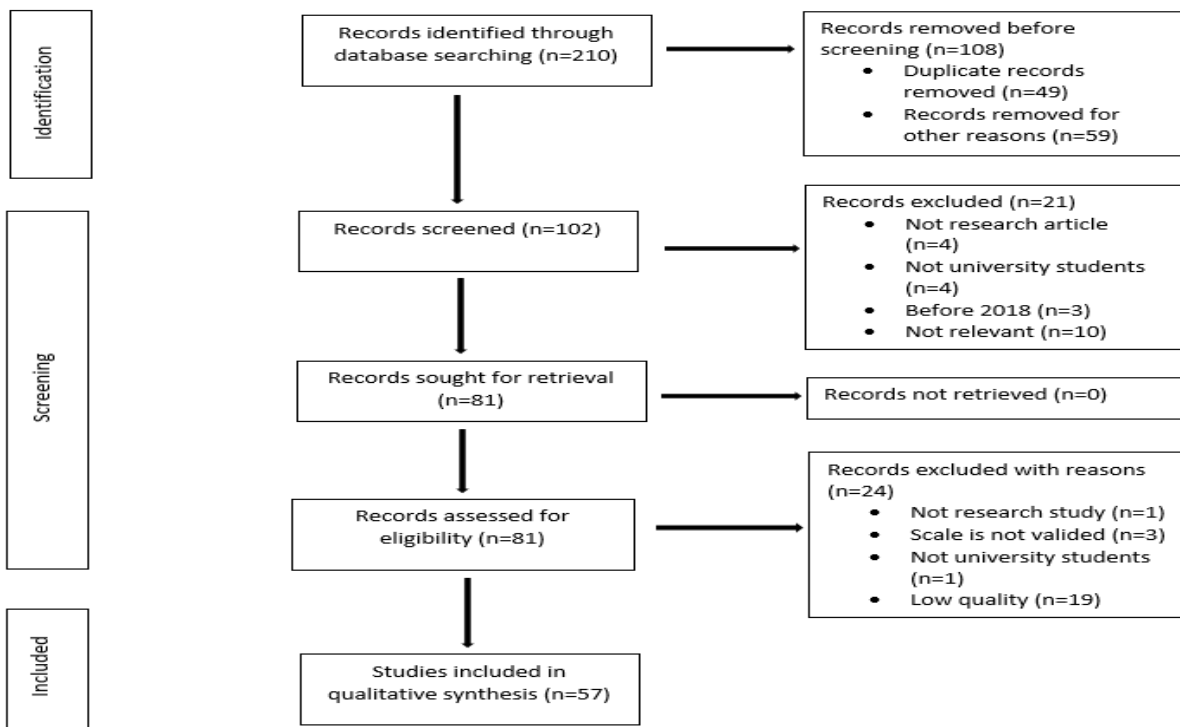


Figure 1. Flowchart for selection of included studies.

Characteristics of the Included Studies

It was observed that the most studies were published in 2020 and 2021 (16 studies in each year). Just over half of the studies (32 studies) were published in Turkish. In the majority of the studies (26 studies), the universe/sample was students studying in various departments in one or more universities. Among the studies in which the population/sample selection was limited to a single section, the most studies were conducted with nursing students (14 studies), followed by elderly care program students (6 studies) (Table 1).

Table 1. The characteristic of studies

Nb.	Year	Researchers	Title	Language	Aim of the study	Population of the study	Sample of the study	Ageism scale	Scale point	Attitude towards aged people	Risk of Bias
1	2018	Zubaroglu et al.	Examination of Ageist Attitudes in Terms of Some Variables Among Social Work Students	English	To assess the attitudes of social work students towards ageism in terms of some variables such as gender, grade, willing to work with old people in the future and having fun to spend time with old people	Social Work Department students (N=320)	153 students	AAS	91.32±10.60	Neutral	9
2	2018	Cinar et al.	Investigation of the attitudes of university students towards discrimination of the elderly	English	To determine the attitudes of university students studying in different fields towards discrimination of the elderly	University students (Department of science, Department of social sciences, Department of health sciences) (N=22677)	416 students	AAS	67.7±6.0	Positive	9
3	2018	Bakan et al.	Identification of nursing students' attitudes towards older people	English	To identify nursing students' attitudes towards older people	Nursing students (N=175)	166 students	KAOPS	NA	Positive	8
4	2018	Ates et al.	Determination of Health Science Faculty Students' Attitudes Towards Elderly Individuals and the Influential Factors	Turkish	To determine the attitudes of students studying in a health sciences faculty at a university towards the aged people and related factors	1st and 2nd year students in Health Science Faculty (nursing, occupational therapy, child development, occupational health and safety, management of health institutions, social work) (N= 465)	335 students	KAOPS	129.5±15.02	Low positive	9
5	2018	Akpınar Soylemez et al.	Examining Nursing Students' Attitudes Towards the Elderly and Factors Affecting Attitudes Towards the Elderly	English	To examine the attitudes of nursing students towards the elderly and the relationship between their personal characteristics and these attitudes	Nursing students (N=518)	357 students	KAOPS	145.35±16.08	Positive	9

6	2018	Salman et al.	Evaluation of the attitudes of nursing students towards elderly people	Turkish	To determine the attitudes of nursing undergraduate students towards their ageing	Nursing students (N=561)	472 students	KAOPS	80.21±11.61	Positive	9
7	2018	Bahadır-Yılmaz	The relationship between nursing students' professional values and their attitudes towards the elderly people: A cross-sectional study	English	To determine the relationship between nursing students' professional values and their attitudes towards the elderly	Nursing students (N=326)	275 students	AAS	82.7±8.8	Positive	9
8	2019	Kalınkara et al.	Determination of attitudes of university students studying in different fields towards elderly discrimination	Turkish	To investigate the attitudes of university students studying in different fields towards older adult discrimination and to determine their relationship with other variables	Students from different universities (Social Work, Gerontology, Aged Care, Nursing, Health Sciences, Social Sciences, and Science)	1320 students	AAS	69.12±7.98	Not mentioned	8
9	2019	Yenal and Yenal	Perceptions of Healthcare Services Students on Older People and Ageing	English	To evaluate the perception of older people and ageing among students of a Vocational School of Healthcare Services	Students in seven different programs (Paramedic program, Medical documentation and secretariat program, Medical laboratory program, Opticianry program, Medical imaging program, Anaesthesia program and Radiotherapy program) (N=1164)	669 students	ASTAE	2.86±0.60	Moderate	9
10	2019	Ozaturker	Erzincan Binali Yıldırım University social work students' views of elderly	Turkish	To determine students' perspectives on ageing	2nd year Social Work program students who took the course "Social Work with the Aged People"	112 students	KAOPS	100.71±7.04	Positive	7

11	2019	Baser and Cingil	Evaluation of University Students' Attitudes Towards the Elderly	Turkish	To determine the attitudes of university students towards elderly	4th year students (Science and Mathematics and Turkish and Social Sciences) (N=180)	137 students	KAOPS	106.7±15.1	Positive	9
12	2019	Sari et al.	Attitudes of Nursing Students towards Elderly People and Empathic Approach Skills	Turkish	To determine the attitudes of nursing students towards aged people and their empathic approach skills	4th year nursing students (N=220)	220 students	KAOPS Basic Empathy Scale	136.18±9.17	Slightly positive	9
13	2019	Kurtkapan	Attitudes of Young People Towards Elderly Discrimination: The Case of Nevsehir	Turkish	To determine the attitudes of university students towards age discrimination and the factors affecting these attitudes	Students at a university	819 students	AAS	81.13±8.83	Positive	7
14	2019	Can et al.	Determination of Attitudes of Vocational School of Health Services Elderly Care Department Students towards Elderly	Turkish	To measure Vocational School of Health Services Elderly Care Department Students' attitudes towards individuals 65 years of age and older / and above	Elderly care program students (N=160)	122 students	UCLA-GAS	47.79±5.56	Moderate	9
15	2019	Yardimci-Gurel	Attitudes of Nursing Students Towards Ageism and Related Factors	Turkish	To determine the attitudes of nursing students towards ageism and the related factors	Nursing students	312 students	AAS	85.18±7.99	Positive	9
16	2020	Toygar and Kardakovan	Factors affecting the attitudes of nursing students towards ageism	English	To determine the attitudes of nursing students towards ageism and the factors affecting them	1st to 4th year nursing students	509 students	AAS	83.97±7.72	Low level	7
17	2020	Bozdogan-Yesilot et al.	Determination of Nursing Students' Attitudes Towards Elderly Discrimination and Affecting Factors	Turkish	To determine the attitudes and factors affecting nursing students towards elderly discrimination	Nursing students (N=1200)	851 students	AAS	80.78±8.67	Positive	9

18	2020	Yelboga	The Perception of University Students in Elderly: Borçka Acarlar MYO Sample	Turkish	To reveal the perception of ageing of young people	Vocational School students	141 students	AAS	68.72±9.17	Higher than moderate	7
19	2020	Can et al.	Attitudes of students towards ageism: an example of university	English	To determine university students' attitudes towards individuals	Nursing, physical therapy, and rehabilitation students (N=745)	599 students	AAS	85.09±9.53	Positive	9
20	2020	Seven and Dulger	Attitudes of Health Care Services Students Towards Ageism and Affecting Factors	Turkish	To determine the attitudes of health care services students towards ageism and affecting factors	Home health care program and Elderly care program students	160 students	AAS	84.76±8.47	Positive	7
21	2020	Akyil et al.	Healthcare Students' Levels of Compassion and Attitudes towards Older People: A Cross-sectional Descriptive Study	English	To determine the dentistry, medical, and nursing students' attitudes towards older people and their levels of compassion	Nursing, medical, and dentistry students (N=1610)	880 students	KAOPS Compassion Scale	98±14.05	Positive	9
22	2020	Koc A. et al.	Evaluation of the relationship between age discrimination and intercultural sensitivities of university students in healthcare fields	English	To determine the relationship between the ageism and Cross-cultural sensitivity levels of university students	Students at a university (Nursing Department, Social Services Department, Physiotherapy and Rehabilitation Department, Nutrition and Dietetics Department, and the Geriatric Care Program) (N=1195)	502 students	PNAS Cross-cultural Sensitivity Scale	Positive Ageism: 46.21±5.71 Negative Ageism: 38.52±5.39	Positive	9
23	2020	Acikgoz et al.	Physiotherapy Students' Attitudes Towards Ageism and Related Factors	English	To identify the ageism attitudes of physiotherapy students and investigate the factors associated with these attitudes	Physical Therapy and Rehabilitation students (N=605)	417 students	AAS	81.0±9.5	Generally positive	9

24	2020	Yonder-Ertem and Yildirim	Undergraduate students' attitudes towards ageism and influencing factors of ageism	English	To determine the attitudes of university students towards ageism and influencing factors	1st and 2nd year university students taking elderly care course	380 students	AAS	47.65±6.49	Positive	7
25	2020	Altun and Demirel	Attitudes of University Students on Elderly Discrimination: The Case of Keskin Vocational School	Turkish	To examine attitudes of college students about elderly discrimination	Vocational School students	322 students	AAS	69.57±8.27	Positive	7
26	2020	Erdogan-Yuce	Determination of the Attitudes of Students Studying in the Field of Health Services Towards the Elderly	Turkish	To determine the attitudes of students studying in the field of health services towards the elderly and the factors affecting these attitudes	Students in Elderly Care, Medical Promotion and Marketing, and Medical Documentation and Secretariat programs (N=340)	180 students	UCLA-GAS	48.55±5.18	Moderate	9
27	2020	Demir	Sociology Students' Attitudes Towards Ageism in The Covid-19 Pandemic Process	Turkish	To reveal the sociology students' attitudes towards ageism during the COVID-19 pandemic process	Sociology department students (N=174)	165 students	AAS	65.93±7.30	Not mentioned	9
28	2020	Uzuntarla and Ceyhan	Ageism and altruism among students in the department of health technician training, Türkiye	English	To determine the attitudes of students in the department of health technician training toward the elderly and reveal the relationship between these attitudes and students' socio-demographic characteristics, as well as their levels of altruism	Vocational School of Health Services students (N=1600)	796 students	AAS	79.49±9.51	Positive	9

29	2020	Koc M. et al.	Attitudes of nursing and medical school students towards ageism	English	To evaluate the attitudes of nursing and medical school students towards age discrimination and to determine the association between these attitudes and various variables	Nursing and medical faculty students (N=941)	662 students	AAS	Nursing students: 86.51±8.22 Medical faculty students: 85.78±8.52	Positive	9
30	2020	Kaplan-Serin and Tülüce	Determining nursing students' attitudes and empathic tendencies regarding aged discrimination	English	To determine nursing students' attitudes and empathic tendencies regarding aged discrimination	Nursing students (N=472)	229 students	AAS Empathic tendency scale	68.59±5.67	Mid-level	9
31	2020	Koca et al.	Health School Students' Views on Aging and Their Attitudes Towards Aging	Turkish	To determine the students' views and attitudes about ageing	Students from different departments (child development, nursing, health management, nutrition and dietetics, and midwifery) (N=1652)	1237 students	KAOPS	155.92 (Standart deviation is not available)	Positive	7
32	2021	Gungor and Borazan	The attitudes of elderly care and paramedic students toward ageism	Turkish	To determine the attitudes of elderly care and first and emergency aid (paramedic) students towards ageism	Elderly care program and paramedic program students (N=386)	291 students	PNAS	Positive Ageism: 50.12±7.04, Negative Ageism: 40.19±16.16	Negative ageism is low, positive ageism is high	9
33	2021	Kaplan et al.	Attitudes of first-and fourth-year nursing department students at a foundation university regarding elderly discrimination	Turkish	To determine the attitudes of 1st year and 4th year nursing student regarding elderly discrimination	Nursing students (N=180)	102 students	AAS	86.76±11.59	Positive	9
34	2021	Pekesen et al.	Determining The Attitudes of University Students About Elderly Discrimination	Turkish	To determine the attitudes of the students of the Department of Gerontology and the Elderly Care program	Gerontology department and vocational school students (N=1010)	780 students	AAS	85.33±9.38	Positive	9

35	2021	Kavuran and Caner	Determining The Attitudes of Students In Elderly Care Program Towards The Elderly and Affecting Factors	Turkish	To determine attitudes towards the elderly of the students in elderly care program and affecting factors	Elderly care program students (N=285)	257 students	KAOPS	155.62±40.16	Positive	9
36	2021	Aliumuerova et al.	Attitudes of 6th Grade Students of Faculty of Medicine Regarding Ageism and Related Factors	Turkish	To determine attitudes towards the elderly of 6th grade students in Faculty of Medicine and to evaluate the related factors with ageism	6th year medical faculty students (N=359)	259 students	AAS	84.6±9.7	Positive	9
37	2021	Kose-Tosunoz and Gungor	Ageism: An Example of Nursing and Elderly Care Students	Turkish	To determine the attitudes of nursing and elderly care students towards ageism and the factors affecting these attitudes	Nursing students and elderly care program students (N=799)	559 students	AAS	83.31±8.24	Positive	9
38	2021	Koseoglu and Bayindir	Attitudes towards the older adults among the senior dentistry students at the University of Atatürk dentistry faculty in Türkiye	Turkish	To examine the attitudes of last-year dentistry students at a university towards elderly patients	Last year dentistry students (N=120)	103 students	Aged Semantic Differential Scale	3.89±0.97	Generally positive	9
39	2021	Bahcecioglu-Turan et al.	Investigation of University Students' Emphatic Tendency and Attitudes towards Age Discrimination	Turkish	To investigate university students' emphatic tendencies and attitudes relating to discrimination against older people	Students at a university (N=7800)	483 students	AAS Emphatic Tendency Scale	80.84±10.33	Positive	9
40	2021	Birinci	Evaluation of the Attitudes of Social Worker Candidates Regarding Elderly Discrimination	Turkish	To determine the attitudes of social worker students regarding elderly discrimination	Social work students (N=210)	165 students	AAS	64.92±6.66	Negative	9

41	2021	Karabekiroglu et al.	Determination of Attitudes of Kahramanmaras Sutcu Imam University Faculty of Medicine Students on Aged Discrimination	Turkish	To determine the attitudes of medical school students towards elderly discrimination and their relationship with sociodemographic variables	Medical faculty students	224 students	AAS	68.28±7.54	Positive	7
42	2021	Gumus	Healthcare School Students' Willingness to Work With The Elderly: Influence of Ageism	English	To examine the influence of ageism attitude and the associated factors such as demographics of healthcare school students on willingness to work with elderly after graduation	Students from different departments (Dental and Prosthetics Technology, Oral and Dental Health, Anesthesia, Dialysis, Medical Imaging Techniques, Medical Documentation, Orthosis and Prosthesis Techniques, Physiotherapy)(N=768)	704 students	AAS	3.961±0.430	Positive	9
43	2021	Arisoy and Onal	Determination of Vocational School Students' Attitudes Towards Senility and Aging	Turkish	To investigate the attitudes and the parameters affecting the attitudes of vocational school students towards ageing and senility, also, to examine whether there is any difference in these attitudes between Welfare Service students and the students from other departments in the same vocational school or not	Vocational School students (N=538)	272 students	ASTAE	131.92±26.80	Negative perception and attitude towards old age and ageing	9
44	2021	Kocak et al.	College Students' Attitudes Towards the Elderly: an Exploratory Study in Turkey	English	To determine the attitudes of university students towards elderly people and the variables that affect these attitudes	Students from Social Sciences, Health Sciences, Education, Economy and Management, and Engineering	149 students	KAOPS	135.17±19.89	Generally positive	7
45	2021	Celebi and Uncu	Nursing Students' Attitudes Towards the Elderly and Affecting Factors	English	To determine nursing students' attitudes towards the elderly and affecting factors	Nursing students (N=563)	454 students	KAOPS	129.64±16.47	Generally positive	9

46	2021	Kabakoglu and Mansuroglu	Relationship Between Attitudes Towards Elderly and Preparedness for Caregiving in Health Students During Covid-19 Pandemic in Turkey	English	To examine the relationship between Nursing and Elderly Care students' attitudes towards elderly and their preparedness for caregiving during the COVID-19 pandemic	Nursing and elderly care program students (N=666)	310 students	KAOPS Preparedness for Caregiving Scale	103.29±14.00	Positive	9
47	2021	Oral et al.	Attitudes of Medical Faculty Students Towards Ageism: A Cross-Sectional Study From Kayseri	English	To determine some factors related to the attitudes of the first and last (sixth) year students	1st and 6th year medical faculty students (N=542)	468 students	AAS	84.9±8.8	Generally positive	9
48	2022	Tayaz and Koc	Attitudes of Nursing Students Towards Ageism and Related Factors	Turkish	To determine the attitudes of nursing students towards ageism	Nursing students in different universities in Ankara (N=4327)	1744 students	AAS	70.05±7.27	Positive	9
49	2022	Ayguler and Buz	Examination of university students' attitudes towards older people: the case of social work education	English	To determine the attitudes of social work students towards the older adults, the effect of the duration of education on their attitudes towards older people, and the factors that positively affect attitudes toward older people	Students from different departments (social work, health management, and international relations departments) (N=640)	506 students.	KAOPS	NA	NA	8
50	2022	Kose-Tosunoz	The Relationship Between Ageism and Professional Values: The Case of Nursing Students	Turkish	To determine the relationship between nursing students' attitudes towards the elderly and their professional values and the related factors	Nursing students (N=543)	231 students	PNAS Nurses' Professional Values Scale	Positive Ageism: 47.24±5.17 Negative Ageism: 38.51±5.43	Positive	9

51	2022	Okur et al.	The willingness of elderly care program students to care for older adults and the associated factors: a multi-centered research	English	To evaluate the attitudes of students in the elderly care program at the associate degree towards the older adults and their willingness to provide care	Elderly care program students at five universities (N=745)	525 students	ASTAE	137.4±26.7	Negative	9
52	2022	Sonmez et al	Attitudes on Ageism Among First- and Sixth-Year Medical Students and Related Factors	English	To investigate the attitudes of 1st and 6th year medical students on ageism and related factors, and to examine their willingness to work with older patients in their professional lives	1st and 6th year medical students (N=637)	524 students	AAS	84.1±8.9	Generally positive	9
53	2022	Demir-Cam et al.	Does peer support affect attitude towards ageism in students studying in elderly care program?	Turkish	To determine the attitudes of students studying in the elderly care program towards ageism, the factors affecting peer support, and to evaluate the effect of peer support on ageism	Elderly care program students (N=237)	223 students	AAS Peer Support Scale	81.27±13.12	Positive	9
54	2022	Sönmez Sari and Yildirim Gürkan	Determining The Attitudes of Elderly Care Program Students About Ageism	Turkish	To determine the attitudes of aged care program students towards ageism	Elderly care program students (N=143)	133 students	AAS	84.78±9.24	Positive	9
55	2022	Demir-Dikmen and Baltacı-Yıldız	Attitudes of aged care technician students towards age discrimination	Turkish	Examining the attitudes of Elderly care program students towards ageism	Elderly care program students (N=290)	256 students	PNAS	Positive Ageism: 47.54±8.44, Negative Ageism: 35.86±6.44	Negative ageism is moderate, positive ageism is high	9
56	2022	Aydın	Attitudes Towards Ageism Among Nursing Students Studying at a University	English	To determine attitudes towards ageing and factors affecting these among university nursing students	Nursing students (N=480)	307 students	AAS	68.53±6.91	Positive	9

57	2022	Ayrancı et al.	Investigation of the Effect of the Use of Cinema in Medical Education on the Attitudes of Medical Students Towards the Elderly: An Interventional Study	English	To evaluate the attitudes of Medical Faculty students towards the elderly and the change in their attitudes after watching a movie about elderly people	1st and 6th year medical faculty students (N=540)	402 students	UCLA-GAS KAOPS	Preintervention UCLA-GAS score: 48.12±5.19, postintervention UCLA-GAS score: 46.38±5.86 Preintervention KAOPS: 102.35±12.80 Post-intervention KAOPS: 98.22±13.64	Not mentioned	9
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AAS: Ageism Attitude Scale

ASTAE: Attitude Scale Towards Aging and Elderliness

KAOPS: Kogan Attitudes Towards Old People Scale

PNAS: Positive and Negative Ageism Scale

UCLA-GAS: UCLA Geriatric Attitude Scale

NA: Not Available

The most commonly used scales are Ageism Attitude Scale (AAS) and Kogan Attitudes Toward Old People Scale (KAOPS) (32 and 15 studies, respectively). In most of the studies, students' attitudes towards the aged people were found to be positive. It was stated that 33 studies had positive attitudes and 6 studies had generally positive attitudes.

While the attitudes of women were more positive in 20 of 55 studies, the attitudes of men were found to be more positive in 8 of them. According to 27 studies, there was no difference in terms of gender. While in 22 out of 26 studies no difference was found between age groups and attitudes, in 2 studies it was stated that older students' attitudes were more positive (Table 2).

In 18 of 35 studies, no difference was found in students' attitudes according to the year of study. On the other hand, the senior students' attitudes in 7 studies and the first grade students' attitudes in 5 studies, and the second and/or the third year students' attitudes in 5 studies were found to be more positive. While there was no difference in terms of faculties or departments in 6 of 19 studies, different results were revealed in 13 studies.

While 27 out of 37 studies stated that there was no difference in the students' attitudes based on living in the rural area or the city, only 7 of them stated that the attitudes of those living in rural areas and 3 of those living in the city were more positive. 28 out of 39 studies reveal that family structure has no impact on attitudes towards the aged people. On the other hand, 7 studies indicate that the students living in extended families and 3 studies indicate that students living in nuclear families have more positive attitudes. Of the 25 studies, 3 found the attitude of those with a high income level to be more positive, and 1 of those with a lower income level found the attitude more positive. Eight of the 13 studies reveal that the educational status of the parents had no effect on the student's attitude. In 5 studies, different results were indicated on the relationship between the parents' educational status and the the students' attitudes. In 13 of 52 studies, the students' attitudes regarding living in the same house with the aged individual is more positive.

In 25 of 29 studies, the students' attitudes who want to work with older people in the future was more positive. 17 out of 22 studies indicate that the students who want to live with their parents in the future had more positive attitudes.

Table 2. The characteristics of the studies in terms of factors affecting students' attitudes towards the aged people

Nb	Year	Researc hers	Gender	Age	Education year	Faculty/ department	Urban/rural	Family type	Income	Parents education	Living with aged person	Want to work with aged people	Want to live with parents	Recommendations
1	2018	Zubarog lu et al.	Not significant	NA	4th year students have more positive attitude	NA	NA	NA	NA	NA	NA	Students who want to work with aged people have more positive attitude	NA	Geriatric studies should be encouraged, Empathy should be included in education, The number of internships should be increased
2	2018	Cınar et al.	Males have more positive attitude	NA	NA	Not significant	NA	NA	NA	NA	Students living with aged person have more positive attitude	NA	NA	Action must be taken to remove discrimination of aged people, and policies must be developed to increase social sensitivity
3	2018	Bakan et al.	Not significant	Not significant	NA	NA	NA	Not significant	NA	NA	Not significant	Students who want to work with aged people have more positive attitude	NA	Perceiving Geriatrics education as a separate profession, providing nurses who work in this field with certificate about Geriatrics, and organizing postgraduate and doctoral programs on the issue

4	2018	Ates et al.	Females have more positive attitude	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant	NA	Students living with aged person have more positive attitude	NA	NA	Organizing activities or social responsibility projects that will increase the interaction of university students and aged people, inclusion of issues related to ageing in the education curriculum, increasing interaction with aged people in clinical practice, providing counseling services to students
5	2018	Akpınar Soylemez et al.	Not significant	Not significant	Not significant	NA	Not significant	NA	NA	NA	Not significant	Students who want to work with aged people have more positive attitude	NA	Geriatric education should be an integral part of nursing education
6	2018	Salman et al.	Males have more positive attitude	Not significant	Not significant	NA	Not significant	Not significant	NA	NA	Not significant	Students who don't want to work with aged people have more positive attitude	Students who don't want to live with parents have more positive attitude	Establishment of training programs university students to increase the awareness of ageing
7	2018	Bahadır -Yılmaz	Not significant	Not significant	4th year students have more positive attitude	NA	Students living in urban areas have more positive	Not significant	Not significant	NA	Not significant	Students who want to work with aged people	NA	The nursing students' professional values are associated with their attitudes

						attitude						have more positive attitude		towards aged people. Professional values should be taught and that courses on values should be added to the curriculum to improve the attitudes of the students towards ageism
8	2019	Kalınkara et al.	Females have more positive attitude	NA	NA	Social science faculty students have higher positive attitude compared to Health Science Faculty students	Students living in rural areas have more positive attitude	NA	NA	NA	NA	NA	NA	Awareness-raising activities should be carried out for young people about ageing. Activities that will increase interaction with the aged people should be planned
9	2019	Yenal and Yenal	Not significant	NA	NA	NA	NA	NA	NA	NA	NA	Not significant	NA	To include lectures on ageing in the syllabus for healthcare technicians
10	2019	Ozuturker	Females have more positive attitude	NA	NA	NA	Students living in rural areas have more positive attitude	Students living in an extended family have more positive attitude	NA	NA	NA	Students living with aged person have more positive attitude	NA	Education should be planned for students and internship opportunities should be offered, raising awareness of ageism should be considered

11	2019	Baser and Cingil	Not significant	NA	NA	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant	NA	Students who want to live with parents have more positive attitude	Activities related to ageing should be planned for university students
12	2019	Sari et al.	Not significant	NA	NA	NA	Not significant	Not significant	Not significant	NA	Not significant	Students who want to work with aged people have more positive attitude	Not significant	Geriatrics course should be included in the nursing curriculum. This course content should be supported with active learning techniques such as simulation and role play so that they can better empathize with aged people
13	2019	Kurtkapan	Females have more positive attitude	Not significant	NA	NA	Not significant	Not significant	Not significant	NA	Students living with aged person have more positive attitude	Students who want to work with aged people have more positive attitude	Students who want to live with parents have more positive attitude	Comparative studies should be conducted on the age discrimination of young people
14	2019	Can et al.	Not significant	Not significant	NA	NA	NA	Not significant	NA	NA	Not significant	NA	Students who want to live with parents have more positive attitude	Giving more place to issues related to ageing in the education process
15	2019	Yardimci-Gurel	Females have more positive attitude on Restricting Life and	NA	Not significant	NA	NA	Not significant	Not significant	NA	Not significant	Students who want to work with aged people have more	Not significant	Increasing the number of courses on aged patient care in the education curricula and conducting

			Negative Discrimination, males have more positive attitude on Positive Discrimination									positive attitude		interventional studies that will contribute to the development of positive attitudes and behaviors of students
16	2020	Toygar and Kardakovan	Females have more positive attitude	NA	2nd, 3rd, 4th years students have more positive attitude compared to 1st year students	NA	Not significant	NA	NA	NA	Students living with aged person have more positive attitude	NA	NA	Nursing curriculum should be revised to reduce ageism
17	2020	Bozdogan-Yesilot et al.	Not significant	NA	1st year students have more positive attitude on Positive Discrimination, 3rd year students have more positive attitude on Negative Discrimination	NA	Students living in rural areas have more positive attitude	Students living in extended family have more positive attitude on Positive Discrimination, but less positive attitude on Negative Discrimination	NA	NA	Not significant	Students who want to work with aged people have more positive attitude	NA	Increasing the activities that increase the positive attitude towards the aged people. Inclusion of monitoring and care of aged people in education
18	2020	Yelboga	Not significant	NA	NA	Occupational Health and Safety department students have the highest positive attitude on Restricting	NA	NA	Students with higher income have more positive attitude on Restricting Life	Not significant	Not significant	NA	NA	Policies for the protection of the extended family should be developed. Empathic skills of young people should be developed

19	2020	Can et al.	Females have more positive attitude on Restricting Life	NA	NA	Physical therapy and rehabilitation on students have more positive attitude on Restricting Life	NA	Students living in extended family have more positive attitude	NA	Students whose mothers have lower education have more positive attitude on Positive Discrimination, students whose fathers have higher education have more positive attitude on Negative Discrimination	NA	NA	Students who want to live with parents have more positive attitude	Inclusion of the issues on ageism in the courses given during the education
20	2020	Seven and Dulger	Females have more positive attitude	NA	NA	Not significant	Not significant	Students having broken family have more positive attitude	Not significant	NA	Not significant	Not significant	NA	Subjects related to ageing should be added to the curriculum, practical training and interaction with aged people should be increased

21	2020	Akyil et al.	Females have more positive attitude	NA	NA	Nursing students have the highest positive attitude, dentistry students have the lowest positive attitude	Not significant	Not significant	NA	NA	Not significant	NA	NA	There was / There should be a positive relationship between students' attitudes and compassion levels towards older people
22	2020	Koc A. et al.	NA	NA	NA	NA	NA	NA	NA	NA	Not significant	Students who want to work with aged people have more positive attitude	Students who want to live with parents have more positive attitude	The subject of ageism may be included more in the relevant health curriculum
23	2020	Acikgoz et al.	Females have more positive attitude	Not significant	NA	NA	Not significant	Not significant	Students with higher income have more positive attitude on Positive Ageism	Not significant	Not significant	Students who want to work with aged people have more positive attitude	Students who want to live with parents have more positive attitude	Interactions with older adults can increase positive ageism attitudes
24	2020	Yonder- Ertem and Yildirim	Not significant	Not significant	NA	NA	NA	Not significant	NA	Not significant	Not significant	NA	Students who want to live with parents have more positive attitude	To restructure the curricula of healthcare students
25	2020	Altun and Demirel	Males have more positive attitude	Not significant	NA	Child development program students have the lowest positive	NA	Not significant	NA	NA	NA	NA	NA	Developing educational curricula to increase university students' positive attitudes towards the older people.

attitude													Preparation of additional programs	
26	2020	Erdogan -Yuce	Not significant	NA	Not significant	Medical Promotion and Marketing department students have more positive attitude on Social Values subscale, Aged Care Department students have more positive attitude on Compassion Subscale	NA	Not significant	NA	NA	Not significant	NA	NA	To include more subjects related to ageing in the education curriculum, restructuring education to allow for positive experiences with aged people
27	2020	Demir	Males have more positive attitude	Not significant	Not significant	NA	Students living in rural areas have more positive attitude	Students living in extended family have more positive attitude	NA	NA	Students living with aged person have more positive attitude	NA	NA	NA

28	2020	Uzuntarla and Ceyhan	Females have more positive attitude	Older students have more positive attitude on Positive Discrimination	Not significant	NA	Not significant	Students living in a joint family have more positive attitude on Restricting Life	Not significant	NA	Not significant	NA	Students who want to live with parents have more positive attitude	There was a significant positive relationship between altruism and ageism scale score. The curricula for students might cover more content on ageing to prevent ageism and promote awareness
29	2020	Koc M. et al.	Females have more positive attitude	Not significant	Last year students have more positive attitude	Nursing students have more positive attitude on Restricting Life, medical faculty students have more positive on Negative Discrimination	Nursing students living in urban areas have more positive attitude	Not significant	Not significant	Not significant	Students living with aged person have more positive attitude	Students who want to work with aged people have more positive attitude	Students who want to live with parents have more positive attitude	Curricula need to be improved for nursing and medical school students to acquire a more holistic view of the care of aged people
30	2020	Kaplan-Serin and Tülüce	Females have more positive attitude	NA	4th year students have more positive attitude on Restricted Life and Negative Discrimination but less positive attitude on Positive Discrimination	NA	Not significant	NA	NA	NA	Not significant	Students who want to work with aged people have more positive attitude on Restricting Life	NA	To improve the nursing students' empathic approach skills and attitudes towards older people. Curricula should be designed to allow study programs to be specifically integrated into curricula for those who are favorably

														disposed to work in healthcare settings for older people after graduation
31	2020	Koca et al.	Not significant	Not significant	3rd year students have more positive attitude	Child Development Program students have more positive attitude	Not significant	Not significant	NA	Students whose fathers have higher education have more positive attitude	Not significant	NA	NA	Inclusion of ageing-related issues in the education curriculum, and ensuring that students are involved in aged care settings
32	2021	Gungor and Borazan	Not significant	NA	1st year students have more positive attitude on Negative3Discrimination	Not significant	Not significant	Not significant	Not significant	NA	Not significant	NA	Students who want to live with parents have more positive attitude	Including issues related to ageing in education curricula. Internship for students to interact with older people. Raising awareness of ageism, information, and awareness-raising activities
33	2021	Kaplan et al.	Not significant	NA	4th year students have more positive attitude	NA	NA	NA	NA	NA	Not significant	Not significant	NA	To include more issues and practices related to ageing in the undergraduate education content. To introduce a separate course on aged care into the curriculum, to create areas of

														practice in which students can give more care to the aged people and spend more time with them. To organize programs on geriatric nursing after graduation
34	2021	Pekesen et al.	Males have more positive attitude on Positive Discrimination	NA	2nd year students have more positive attitude	Department of Gerontology students have the highest positive attitude, medical documentation and secretarial department students have the lowest positive attitude	Not significant	Not significant	Not significant	NA	Students not living with aged person have more positive attitude	Students who want to work with aged people have more positive attitude	Students who want to live with parents have more positive attitude	Education should be provided, strategy and social policies on the ageing should be established
35	2021	Kavuran and Caner	Males have more positive attitude	NA	2nd year students have more positive attitude	NA	Not significant	Students living in nuclear family have more positive attitude	Not significant	Not significant	Not significant	Students who want to work with aged people have more positive attitude	NA	To organize social activities for students to spend more time with aged people, to give the students the opportunity to implement their education in the field, to increase the awareness of the society on ageing

36	2021	Aliumurova et al.	Females have more positive attitude	NA	NA	NA	Students living in urban areas have more positive attitude on Negative Discrimination	Not significant	Not significant	Students whose fathers have lower education have more positive attitude	Students living with aged person have more positive attitude on Positive Discrimination	Students who want to work with aged people have more positive attitude	Students who want to live with parents have more positive attitude	Creating programs in which students can meet more with aged patients or individuals
37	2021	Kose-Tosunoz and Gungor	Females have more positive attitude on Restricting Life, but males have more positive attitude on Positive Discrimination	NA	NA	Nursing students have more positive attitude on Negative Discrimination	Not significant	Not significant	Students with higher income have more positive attitude on Restricting Life	NA	Not significant	NA	Students who want to live with parents have more positive attitude on Positive Discrimination	Education programs should be developed and opportunities should be created for young people to have positive experiences with aged individuals
38	2021	Koseoglu and Bayindir	Not significant	NA	NA	NA	NA	NA	NA	NA	Not significant	Students who want to work with aged people have more positive attitude	NA	Further studies are recommended to investigate the ageism attitudes of dentistry students in different universities
39	2021	Bahcecioglu-Turan et al.	Females have more positive attitude on Positive Discrimination	Weak significant negative correlation was observed in AAS scores and age	NA	NA	Not significant	Not significant	Students with higher income have less positive attitude on Negative Discrimination	NA	There is no relationship between the number of years lived with the aged person and ASS	NA	NA	As the emphatic tendency of students increase, they show positive attitude towards older people. Organizing training programs to increase the empathy and awareness of

														young people
40	2021	Birinci	Males have more positive attitude	NA	Not significant	NA	Not significant	Not significant	Not significant	NA	Students not living with aged person have more positive attitude	NA	NA	Adding courses related to ageing to the curriculum, course and certificate programs. Implementation of projects that will improve intergenerational dialogue, raising social awareness about ageing
41	2021	Karabekiroglu et al.	Not significant	NA	Not significant	NA	Students living in rural areas have more positive attitude on Restricting Life	Not significant	Not significant	NA	Not significant	Students who don't want to work with aged people have more positive attitude	Students who want to live with parents have more positive attitude on Positive Discrimination	There is a need for studies to increase the awareness of physician candidates on aged discrimination
42	2021	Gumus	Not significant	Not significant	Not significant	NA	NA	Not significant	Not significant	Students whose mothers have higher education have more positive attitude	Not significant	Students who want to work with aged people have more positive attitude	Students who want to live with parents have more positive attitude	The university students of health vocational schools should be encouraged to pursue a career in aged care after their graduation
43	2021	Arisoy and Onal	Not significant	Not significant	Not significant	Aged Care Program students have lower positive attitude on	NA	NA	Not significant	NA	Not significant	NA	NA	Increasing students' communication skills, teaching the subject of "Emotional Labor"

						difficulty in coping with life								
44	2021	Kocak et al.	Not significant	Not significant	Not significant	Health Science Faculty students have more positive attitude	Not significant	Not significant	NA	NA	Not significant	NA	Not significant	Planning and implementation of trainings, organizing social events and social responsibility projects that bring together the young and aged people
45	2021	Celebi and Uncu	Not significant	Not significant	Not significant	NA	NA	NA	NA	NA	NA	Students who want to work with aged people have more positive attitude	NA	To develop educational interventions for increasing and encouraging nursing students' intention to work with aged people
46	2021	Kabakoglu and Mansuroglu	NA	Not significant	Not significant	Not significant	NA	NA	NA	NA	Not significant	NA	NA	A moderate correlation was found between students' attitudes towards the older people and their preparedness for caregiving. Enriching the curriculum and ensuring that students gain experience in practice on the field

47	2021	Oral et al.	Females have more positive attitude on Restricting Life	Older students have more positive attitude	Last year students have more positive attitude	NA	Not significant	Students living in a nuclear family have more positive attitude on Restricting Life	Not significant	NA	Students who lived with aged person before have more positive attitude on Negative Discrimination	Students who want to work with aged people have more positive attitude	NA	Lessons on aged people health and ageing should be included in the curriculum. Students should be supported with spending time with aged people
48	2022	Tayaz and Koc	Males have more positive attitude	NA	1st and 2nd year students have more positive attitude compared to 3rd and 4th students	NA	Not significant	NA	NA	NA	Students living with aged person have more positive attitude on Restricting Life and Positive Discrimination	NA	NA	A course on ageing should be added to the curriculum. Considering interventions and studies to develop positive attitudes towards the aged people. Qualitative studies on the problems that students experience should be carried out
49	2022	Ayguler and Buz	Not significant	Not significant	3rd year students have more positive attitude	The social work students have more positive attitude	NA	NA	NA	NA	Not significant	Students who want to work with aged people have more positive attitude	NA	Various educational events such as seminars, courses, and lectures should be organized to encourage students to be in contact with older people more
50	2022	Kose-Tosunoz	Females have more positive attitude on Negative Discrimination	Not significant	1st year students have more positive attitude on negative discrimination	NA	Not significant	Not significant	Not significant	NA	Not significant	Students who want to work have more positive attitude	Not significant	Organizing nursing education programs that encourage the development of professional values

51	2022	Okur et al.	Not significant	NA	1st year students have more positive attitude	NA	NA	Not significant	NA	NA	Students living with aged person have more positive attitude	Students who want to work with aged people have more positive attitude	NA	Students should be prepared / trained to work in clinics. It is necessary to develop government policies and raise awareness on this issue
52	2022	Sonmez et al.	Females have more positive attitude	NA	NA	NA	Students living in rural areas have more positive attitude	NA	NA	Students whose parents have lower education have more positive attitude	Students living with aged person have more positive attitude	Students who want to work with aged people have more positive attitude	Students who want to live with parents have more positive attitude	Curricula should be supported from the first years of education, social activities such as community support projects should be organised to increase communication with healthy older people
53	2022	Demir-Cam et al.	Not significant	NA	Not significant	NA	Not significant	Students living in an extended family have more positive attitude	NA	NA	Students living with aged person have more positive attitude	Students who want to work with aged people have more positive attitude	NA	Peer support score was found to be a low predictor of attitude score, so education for students and what they can do with older individuals events should be planned. To increase peer support, appropriate environments should be provided for students to work with each other

54	2022	Sönmez Sari and Yildirim Gürkan	Not significant	Not significant	Not significant	NA	Not significant	NA	NA	NA	Not significant	Students who want to work with aged people have more positive attitude	NA	Subjects related to ageing should be added to the education content
55	2022	Demir-Dikmen and Baltacı-Yıldız	Not significant	Not significant	Not significant	NA	Not significant	Students living in a nuclear family have more positive attitude on Positive Ageism	Not significant	NA	Not significant	NA	Students who want to live with parents have more positive attitude on Positive Discrimination	The activities to raise awareness about ageing should be carried out at all educational levels
56	2022	Aydın	Not significant	Weak significant negative correlation was observed in AAS scores and age	Not significant	NA	Students living in rural areas have more positive attitude on Restricting Life	Not significant	NA	Not significant	Not significant	NA	NA	Knowledge and skills should be included in nursing training programs
57	2022	Ayrancı et al.	Females have more positive attitude	NA	As the academic period increases, students' positive attitude scores decrease	NA	Not significant	Students living in an extended family have more positive attitude	Not significant	Not significant	Not significant	NA	NA	Geriatric education and rotationships should also be organized during undergraduate education, and more detailed studies are needed on the deficiencies and what can be done on this subject

NA: Not Available

DISCUSSION

In this study, being conducted to reveal the university students' attitudes towards the aged people and the affecting factors, 57 studies with students studying in Turkey were scrutinized. In the studies examined, the relationship between the students' attitudes towards aging and demographic characteristics (age, gender), the variables related to their education (class, department), family variables (family type, income level, parents' education level, region of residence, living with an aged individual) and their opinions concerning the future (in terms of wanting to work and wanting to live with parents in the future) were evaluated.

Demographic structure is of great significance among the causes of ageism in society. Some studies indicate that the size of the population over 65 years old and the rate of increase in the old aged population are related to ageism (Ng and Lim-Soh, 2021). Furthermore, there exists another fact that the cultural structure of the society also impacts the attitude towards the aged people. In Turkish culture, respect for old age, listening to the words of the aged people and taking care of them are considered as traditional and irreversible expectations. On the other hand, the status and prestige of the aged people in society are changing as a result of the transformation from extended family to nuclear family, migration from rural to urban, women entering the working life, and changes in traditional culture and values (Ugurlu et al, 2019). Although the proportion of the aged population in Turkey is not a very high figure yet, projections indicate that the country (Turkey) is in a rapid aging process (TUIK, 2022). In the articles examined in this study, there are students living in a country with the same demographic characteristics and a similar cultural structure. In this context, it is significant to highlight how the ageism levels of young people in a society are influenced by individual's characteristics, assuming that the demographic structure and cultural variables remain constant.

In the majority of the studies examined, it was observed that the level of students' ageism is low. This result reveals that the manner of the new generation towards aged individuals in Turkey is generally positive. Numerous studies have been carried out to measure the ageism level of university students in different countries. In these studies, it is possible to observe negative (Smith et al, 2017), positive (López-Hernández et al, 2021) or neutral (Ha and Kim, 2021) results for aged individuals.

In some of the studies examined, it is observed that the students studying in the departments related to faculty of health sciences have higher scores in attitudes towards ageism in the dimension of "limiting the life of the elderly". Ha and Kim (2021) state that as the duration of education increases in nursing students, the level of ageism becomes more negative.2 The reason for this is that the students think that interacting with sick aged people makes them shape negative attitudes. On the other hand, in a study conducted with university students in Spain, ageism was not found in students studying healthcare. However, ageism is observed in other student groups (psychology, education, and professions with possible contact with older adults) examined in the study. The fact that healthcare students do not have a negative attitude towards the aged people is believed. It is supposed that that they are at the beginning of their education period and they have not contacted with aged individuals yet (Gutiérrez and Mayordomo, 2019). In another study, students who were in contact with older adults in a care institution or had no previous experience with older individuals were found to have more ageism attitude compared to others, although there was no statistically significant difference (López-Hernández et al, 2021). Accordingly, it is possible to mention that interaction with the aged people is a significant factor in ageism. However, there are some circumstances that attract the attention regarding the positive or negative results of the interaction. Ha and Kim (2021) found that the level of age discrimination decreases when the quality and frequency of contact increase.2 In this case, it is prominent to design the clinical practices for the students studying in the fields that are supposed to work with aged individuals in the future, particularly nursing, and to ensure that the interaction is positive.

Similarly, young people who spend more time and interact with older people have more positive attitudes towards the aged people (Cooney et al., 2021; Dobrowolska et al., 2017; Fukase et al., 2021). Ramamonjarivelo et al. (2021), in their study with university students, divided the students receiving the same course into two different groups. In one of these groups, students were asked to spend time with seniors staying at Senior Living Facilities and report their experiences. The other group was requested to submit a written assignment concerning aging without interacting with the aged people. As a result of the study, the ageism level of the students interacting with the aged people was found to be significantly lower compared to the other group.

Hutchison et al. (2010) point out that frequent and positive contact between generations reduces the anticipations of negative outcomes in interaction with older people. Besides, it was found that frequent and positive contact was associated with a greater willingness to have future contact with older people. On the other hand, it has been revealed that young people are less willing to come into contact with the aged people in the future on the condition that the negative outcome anticipations and intergenerational anxiety in interacting with the aged people are high. As a result, the notion that constant contact and closeness between young and older individuals can reduce negative emotions and make it possible for more harmonious intergroup relations is supported (Hutchison et al, 2010). In the studies reviewed, lower ageism is observed in those living in extended families and those who have experience of living with an aged individual. Similarly, Alquwez et al. (2018) concluded that nursing students with extended family type expressed more positive attitudes towards aging compared to the students from nuclear families. Furthermore, they state that nursing students who have more contact with an aging population have positive perceptions and attitudes towards aged care and are eager to work with this population (Alquwez et al, 2018). The results obtained from this study also indicate that positive attitudes towards aging are higher in those who want to work with aged individuals in the future.

Age discrimination among young people is believed to be due to lack of knowledge, lack of communication with older adults, aging anxiety, and fear of death (Fukase et al., 2021). "Anxiety about aging", which is summarized as concerns regarding the losses and changes that naturally originate with aging, is presented as one of the predictors of ageism. There is a positive relationship between anxiety regarding aging and ageism (Donizzetti, 2019; Ha and Kim, 2021), and prejudice and negative images towards the aging increase negative attitudes towards the aged people (Kim et al., 2021b).

On the other hand, there are studies indicating that the ageism level of students who take courses on aging is lower than compared to those who do not take the same course (Cooney et al., 2021; Dobrowolska et al., 2017; Donizzetti, 2019). When the studies examined in general are considered, the more time students spend in education, the lower ageism is observed. On the other hand, in many studies examining the difference between the groups based on the age of the students, the result was found statistically insignificant. Ageism scores were different from the others merely in four studies (in two studies, older subjects, and in the other two studies, younger subjects). This circumstance suggests that students have knowledge about aging during their education or may have participated in the activities that lead to a positive attitude. In conclusion, based on the data in this study, it can be mentioned that the relationship between the attitude towards ageism and age remains unclear.

36% of the studies examined reveal that ageism is lower in female students compared to males. Similarly, lower ageism was observed in female students in previous studies (Smith et al, 2017; López-Hernández et al, 2021). It is thought that the traditional role of women in the care of aged people in Turkey may be effective in this.

The most expressed recommendation in the studies was to add courses on aging in the education curriculum planned developed for the students. Besides, it has been recommended to perform activities with the aged people, to consider performing social responsibility projects, to provide trainings to increase the students' empathy skills, to increase the interaction of the students studying in the the faculty of health sciences with the aged individuals in clinical practices. Moreover, in four studies, it was stated that policies on aging are supposed to be established.

CONCLUSION

Some studies indicate that university students in Turkey generally have low ageism. However, it is possible to mention that ageism is influenced by the individual characteristics of students. The ageism level of female students is lower compared to that of males. The attitudes of students living with an aged person, having a large family structure and living in the countryside, towards old age are more positive. Furthermore, with regard to the results obtained from the studies, it can be stated that age is not considered as a determining factor. Students with a low level of ageism have a more positive insight concerning working with older people in the future. Awareness-raising activities should be carried out to increase the positive attitude of young people towards aged individuals. To provide courses or seminars on aging to young people throughout their education would be beneficial. In this context, internship programs and projects can be tools to increase positive interaction between young and aged individuals.

Limitations: This systematic review has included the studies in either English or Turkish. All the studies were developed in Turkey.

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