



YAŞLI SORUNLARI ARAŞTIRMA DERGİSİ (YSAD)
Elderly Issues Research Journal (EIRJ)
13(2), 98-106, (2020)
ISSN 1308-5816
<http://dergipark.gov.tr/yasad>
doi:10.46414/yasad.803533

RESEARCH ARTICLE

Undergraduate students' attitudes towards ageism and influencing factors of ageism

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ABSTRACT

This study aims to determine the attitudes of university students towards ageism and influencing these factors. The study was carried out with 1st and 2nd-grade students who have registered for the elderly care course given in the 2018-2019 education period fall term in a State University. Data collection tools comprised two sections: Sociodemographic Questionnaire Form and Ageism Attitude Scale (AAS). Descriptive statistics, linear regression, independent sample t-test, and one-way ANOVA were utilized to evaluate the survey data. The analysis showed that university students have a positive attitude towards ageism. Besides, "willing to live with mother/father or both in the future" responses had a significant impact on the AAS total mean score. In line with these results, it is recommended to conduct multiple intervention studies aimed at determining the views of students and society on ageism in various universities and regions so that underlying factors causing perception and regional differences could be delineated.

ARTICLE HISTORY

Received 01 October 2020
Accepted 24 November 2020

KEYWORDS

Ageism, attitude, stereotype

Üniversite öğrencilerinin yaşlı ayrımcılığına ilişkin tutumları ve yaşlı ayrımcılığını etkileyen faktörler

ÖZET

Bu çalışma, üniversite öğrencilerinin yaş ayrımcılığına yönelik tutumlarını ve etkileyen faktörleri belirlemek amacıyla yapılmıştır. Çalışma, bir devlet üniversitesinin 2018-2019 güz döneminde verilen yaşlı bakımı dersine kayıtlı olan 1. ve 2. sınıf öğrencileriyle gerçekleştirilmiştir. 380 öğrenci ile gerçekleştirilmiş olup, veri toplama aracı olarak; Anket Formu ve "Yaşlı Ayrımcılığı Tutum Ölçeği" bilgi formu kullanılmıştır. Verilerin değerlendirilmesinde; tanımlayıcı istatistikler, doğrusal regresyon, bağımsız örneklem t testi ve tek yönlü Anova kullanıldı. Bu çalışmada, üniversite öğrencilerinin yaş ayrımcılığına karşı olumlu bir tutuma sahip oldukları belirlenmiştir. Ayrıca, AAS toplam puan ortalamasını, yaşlı bireyden ve yaşam özelliklerinden gelecekte anne / babayla veya her ikisi ile birlikte yaşamayı seçme durumunun etkilediği bulunmuştur. Bu sonuçlar doğrultusunda öğrencilerin ve toplumun yaşlı ayrımcılığına yönelik görüşlerinin belirlenmesi, farklı bölgelerdeki üniversitelerde bölgesel farklılıkların giderilmesi için müdahale çalışmalarının planlanması, olumsuzlukların nedenlerini ortaya koyacak araştırmaların yapılması önerilebilir.

MAKALE GEÇMİŞİ

Geliş 01 Ekim 2020
Kabul 24 Kasım 2020

ANAHTAR KELİMELER

Yaşlı ayrımcılığı, tutum, stereotip

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Cite: Yönder, M., & Yıldırım, J. G. (2020). Undergraduate students' attitudes towards ageism and influencing factors of ageism. *Elderly Issues Research Journal (EIRJ)*, 13(2), 98-106. doi:10.46414/yasad.803533

1.BACKGROUND

The lifespan of individuals has increased owing to the rapid development and globalization of technology. This has led to one of the most remarkable demographic transformations in the twenty-first century as a gradual increase in the elderly population (Turkey Statistical Institute, 2013). Our society, environment, and cultural structure jointly define our perceptions and cognition of ageism and elderly behaviors yielding the formation of views and thoughts of how one should treat the elderly (Usta, Demir, Yönder, Yıldız, 2012; Republic of Turkey Ministry of Health Action Plan, 2015). Following a measurable decline in physical and mental capacity, accrued losses in productivity functions, lack of financial security, and loss of independence may well contribute to the feeling of isolation in elderly individuals (Republic of Turkey Ministry of Health Action Plan, 2015). Studies contemplating the Turkish family structure reported that 7.7% of the individuals with age equal or above 65 years old choose to dwell in nursing homes under circumstances when self-sufficient life is not possible (Turkey Statistical Institute, 2018).

The phenomenon of demographic aging requires healthcare professionals to get trained in taking care of the complex needs of society such as the case of elderly people. To help mitigate age-based discrimination, all efforts in mental health and public health projects shall be elder centric. Similarly, the World Health Organization (WHO) emphasized that such attitudes could be changed based on experience in combating other forms of discrimination like sexism and racism. Ageism is defined as a multidimensional concept including different attitudes, biases, behaviors, and actions towards an old person (Ron, 2007; Unalan, Soyuer, & Elmalı, 2012). Primarily, combating age discrimination starts with the establishment of a clear and unified definition of ageism that illustrates a positive aging perception for all age groups. Thus, raising awareness in education and media on age-based discriminatory language is essential. Meanwhile, the concept of ageism dwells on a psychological foundation that is socially transmitted and reinforced. Therefore, it is a matter of necessity for young individuals to be able to identify the problem of ageism and avoid intentional/unintentional mispractices accordingly (Choolayil, & Putran, 2020).

In the literature, it is emphasized that some variables may effect the ageism attitudes such as; age, gender, educational level, marital status, mother-father education level, living with an elderly. In Köse et al. study (2015), male students had more positive attitude towards elderly people. On the other hand, in some studies female students had more positive attitudes towards elderly individuals (Türgay et. al., 2015; Güven, Muz, & Ertürk, 2012). Also students whose mothers had low education level, had more negative attitudes related to elderly people (Vefikuluçay, & Terzioğlu, 2008; Yılmaz, & Özkan, 2010). It is stated that these results can be obtained depending on cultural and geographical characteristics.

In particular, it is important to determine the attitudes of students, who were registered for the elderly care courses and planning to get involved with elderly people on a one-on-one basis in the future, against aging and elderly care. The literature review revealed the fact that most of the studies on age-based discrimination were limited to correlational and descriptive methods while a few have adopted advanced models to determine the affecting factor in-depth.

Studies show that negative attitudes toward elderlies and aging are impartially common among physicians, medical students, and nurses (Chrisler, Barney, & Palatino, 2016). Prevalence of such ageist attitudes among health professionals has its downsides for the elderly patients, such as assumption of functional and cognitive decline, which leads to the more limited provision of medical information, abstain from specific treatment options, or exclusion from clinical trials (Briggs, Robinson & O'Neill, 2012; Bodner, Palgi & Wyman, 2018; Higashi, Tillack & Steinman 2012). Ageist attitudes are also common among mental health practitioners and trainees, which leads to treatment access restrictions for the elderly (Bodner, Palgi & Wyman 2018). Thus, age stereotyping and prejudice among health providers can affect the quality and quantity of care older people receive, eventually leading to adverse health outcomes (Wyman, Shiovitz-Ezra & Bengel 2018). The role of health professionals is vital in combating false myths about the elderly stage; therefore, Abreu and Caldevilla (2015) stated that the attained attitudes of the healthcare students should impact the quality of elderly care in the future. Thus, this study aims to determine the attitudes of university students towards elderly discrimination and the factors affecting these attitudes.

2.METHODOLOGY

Study design

This study was designed as descriptive correlational research.

Data Collection Process

The population of the study is comprised of 380 1st and 2nd-grade students who have registered for the elderly care course given in the 2018 fall term in a State University in Turkey. Students were chosen with a random sampling method. 19 students refused to take part in the research and 4 students did not show up at the time of the survey because of discontinuity, sick report on the days that the data collection carried out.

Students who registered at elderly care course were informed about the study by the researchers in the classroom. The data was collected outside the training hours and the mid-term exams in the classroom environment and it tooks 3 months. The questionnaire forms were acquired through face-to-face delivery. Students completed the survey forms in 15-20 mins and the completed forms were collected by the researchers.

IRB approval of the study was received from the Non-Invasive Human Research Ethical Committee (No: 2018/254), which serves as the institutional review board for clinical research. The study was conducted in full accordance with the ethical standards established in the 1964 Helsinki Declaration and its later amendments. Because of the researchers' and the students' departments are different and had any interest, there was no ethical dilemma and participants (students) were free about taking part at the study. The verbal and written informed consents were solicited from the participants who volunteered to participate in the study. Informed consent of all participants was secured with the precondition that they reserved the right to refuse participating at any stage of the study.

Measurements

Research data were solicited via a questionnaire model structured in two sections, namely: Student Introduction Form and Ageism Attitude Scale (AAS).

Student Introduction Form included questions about sociodemographic characteristics (age, gender, year of education, family type), and some other variables such as living in the same house with an elderly, choosing to live with mother/father or both in the future, the elderly person who they live. These questions were prepared

according to the literature (Altay, & Aydın, 2015; Yılmaz, & Özkan, 2010; Güven, Muz, & Ertürk, 2012).

Ageism Attitude Scale was developed by Vefikuluçay and Terzioğlu (2008) that comprised 23 items based on a 5-point Likert-type scale ranging from strongly disagree (1) to strongly agree (5). The scale allows a minimum of 23 and a maximum of 115 points of the total score for each item. Items 2, 4, 6, 7, 8, 9, 13, 20 and 23 were coded respective of the Likert scale, whereas items 1, 3, 5, 10, 11, 12, 14, 15, 16, 17, 18, 19, 21 and 22 were coded in reverse order. Higher scores obtained from the reverse order items translate as an increase in the positive attitudes towards age discrimination. The Attitude Scale (AAS) has three subdimensions. The first subdimension was named "Restriction of elder life" which stands for the beliefs and perceptions of the society hampering the social life of the elderly. The highest subscale score is "45", and the lowest is "9. The second subdimension was named "Positive Discrimination against the Elder" which stands for the positive beliefs and perceptions of the society towards the elderly individual. The highest subscale score is "40", and the lowest is "8. Lastly, the third subdimension was named "Negative Discrimination Against the Elderly" which stands for the negative beliefs and perceptions of the society towards the elderly individual. The highest subscale score is "30", and the lowest is "6.

Table 1. Students' socio-demographic characteristics

Variables	n (%)	F, t	p
AAS total score			
Age Groups			
18-20 years old	252 (66.3)		
21-23 years old	121 (31.8)	0.883	0.688
24 years old or above	7 (1.9)		
Gender			
Male	257 (67.6)		
Female	123 (32.4)	1.744	0.083
Family Type			
Nuclear	301 (79.2)		
Extended	74 (19.5)	0.996	0.484
Broken	5 (1.4)		

F One-way ANOVA; t Independent sample t test

Data Analysis

SPSS 25.0 software package was utilized for the statistical analysis such as descriptive statistics, independent samples t-test, one-way analysis of variance (ANOVA), and linear regression. The results were evaluated at a 95% confidence interval and a p <.05 significance level. Continuous variables were presented as median (min-max), and categorical variables were described with frequencies and percentages. Two variables such as gender of students

in comparison of scale scores according to the descriptive features of the category, independent sample t test was used. According to variables such as class, income, characteristics of living together with an elderly when comparing scale scores, the number of categories in independent variables analysis of variance (ANOVA) was used due to the excess. The regression analysis was used to determine the coefficients of the linear equation by using one or more independent variables that best predict the value of the dependent

variable. Shapiro-Wilk normality test was used to examine whether the numerical data were distributed normally. Since the data were found to be normally distributed, independent t-test and analysis of variance (ANOVA) and Pearson correlation analysis were used. test were used.

3.RESULTS

The descriptive findings of the participants are tabulated in Table 1. It was found that the average age of the participants was 2.30 ± 1.2 , while 67.7% were male, 79.2% had nuclear family, and 56.9% of their mother and 37.4% of their father were elementary school graduates. It was concluded that the AAS mean score

was not influenced by the sociodemographic variables ($p > 0.05$) (Table 1).

The characteristics of living with the elderly and influencing factors have been described as shown in Table 2. It was determined that 57.9% of the participants had been living in the same house with an elderly individual, whereas 72.1% expressed their intent to live together with an elderly individual in the future. 23.4% of the participants, who expressed their discontent to live with the elderly in the future, elected "everyone should establish his/her order" as their reasoning. A statistically significant difference was found between the AAS total score and the state of choosing to live together with a mother/father or both in the future ($F=1.426$, $p < 0.05$) (Table 2).

Table 2. Students' characteristics of living together with an elderly and the influencing factors

Characteristics of living together with an elderly	n (%)	F	p
Lived in the same house with an elderly			
Yes, I lived / I am living	220 (57.9)	1.001	0.475
No, I did not live	160 (42.1)		
With which elderly person did/do you live?			
Both with grandmother and grandfather	150 (66.1)	1.213	0.198
Only with grandmother	65 (28.6)		
Only with grandfather	12 (5.3)		
Currently location of your elderly relatives			
Together with family	77 (21.4)	0.732	0.901
Together with first-degree relative	100 (27.8)		
Alone in his/her house	129 (35.8)		
Nursing home	3 (0.8)		
Other	51 (14.2)		
Choosing to live with mother/father or both in the future			
Wants to live with them	274 (72.1)	1.426	0.043*
Does not want to live with them	89 (23.4)		
Other	17 (4.5)		

F One-way ANOVA; * $p < 0.05$

The findings of the scale and its subdimensions are shown in Table 3. Congruently, a score of 47.65 ± 6.49 for the AAS total mean, 35.09 ± 5.10 for the "restriction of life" subscale, 31.19 ± 6.04 for the "positive discrimination" subscale, and lastly 16.59 ± 3.46 for the "negative discrimination" subscale were reported. Participants scored a minimum of "48" and a maximum of "107" in AAS. The results showed that the students had a positive attitude towards ageism. Furthermore, Pearson correlation analysis was employed to evaluate the relationship between AAS total score and its subscales as shown in Table 3, which was determined to be highly significant for all subscales ($p < 0.001$). "Positive attitude" subscale showed a highly significant relationship with "restriction of life", "positive discrimination" and "negative discrimination" subscales,

whereas "negative attitude" subscale only showed a significant relationship to "restriction of life" and "negative discrimination" respectively (Table 3).

In Table 4, influencing factors for ageism related attitudes were enumerated. Per the analysis, the "positive attitude" subscale was found to establish a very significant relationship with the "Choosing to live with mother/father or both in the future" independent variable ($p < 0.001$). The model was construed to be a good-established model ($DW=1.924$). The correlation between the "positive attitude" and independent variables were 0.350 and the 8.4% alteration was associated with the "Choosing to live with mother/father or both in the future" ($r^2=0.350$). The model was statistically significant and linear ($F=3.2002$; $p < 0.01$). On the contrary, variables such as "negative

attitude" and "negative discrimination" yielded statistically no significant linear relationship with the independent variables ($p > 0.05$). The "restriction of life" variable was found to have a linear relationship ($p < 0.01$) with the "gender" variable. The model was regarded as well-established ($DW = 1.904$). Moreover, the correlation between these variables was 0.288 and 4.3% of the alteration was associated with gender ($r^2 = 0.043$). The model was statistically significant and linear ($F = 2.061$; $p < 0.05$). Meanwhile, the "positive discrimination" variable showed a statistically very significant linear relationship ($p < 0.001$) with the "Choosing to live with mother/father or both in the future" independent variable. This regression model was considered well-established given that the Durbin-Watson (DW) value was 2.012. The correlation between

these variables was 0.368 and 9.7% of the alteration in the mean scores of students who would choose to live with mother/father or both in the future were attributed to "positive discrimination" ($r^2 = 0.368$). The analysis of the relationship was noted as linear and statistically very significant ($F = 3.580$; $p < 0.001$). Besides, a significant relationship was found between the AAS total score and the "Choosing to live with mother/father or both in the future" independent variable ($p < 0.01$). The model was registered as a well-established model ($DW = 2.108$). The correlation between the variable was 0.276 and 3.5% of the alteration was associated with "Choosing to live with mother/father or both in the future" variable ($r^2 = 0.035$). The model was statistically significant and linear ($F = 37.678$; $p < 0.05$) (Table 4).

Table 3. Correlation analysis of the AAS total score and its subscales ($n = 380$)

	Min-Max	Average	Positive Attitude $r(p)$	Negative Attitude $r(p)$	Restriction of Life $r(p)$	Positive Discrimination $r(p)$	Negative Discrimination $r(p)$	AAS total $r(p)$
Positive Attitude	9.00-45.00	35.22±6.70	1					
Negative Attitude	15.00-45.00	36.35±5.10	-.010 (.841)	1				
Restriction of Life	15.00-45.00	35.09±5.10	.341 (<0.001**)	.799 (<0.001**)	1			
Positive Discrimination	8.00-40.00	31.19±6.04	.984 (<0.001**)	-.020 (.696)	.287** (<0.001**)	1		
Negative Discrimination	6.00-29.00	16.59±3.46	-.302 (<0.001**)	.714 (<0.001**)	.187** (<0.001**)	-.298** (<0.001**)	1	
AAS total	48.00-107.00	47.65±6.49	.715 (<0.001**)	.691** (<0.001**)	.805** (<0.001**)	.697** (<0.001**)	.281** (<0.001**)	1

r correlation coefficient; **. Correlation is significant at the 0.01 level (2-tailed).

4. DISCUSSION

The aging population is a common denominator for most international care systems as it causes compounding health problems and places a burden on health care resources. Globally, the number of elderly (60 years and over) is estimated to increase from 600 million to 2 billion between the years 2000 and 2050 (WHO, 2015).

Ageism is an amalgamate effect of stereotype, prejudice, and either negative or positive discrimination due to their chronological age (Ayalon & Tesch-Rome, 2017). Ageism reflects an individual's inner fear of becoming old and death that is socially prevalent and transmitted. (Popham, Kennison, & Bradley, 2011; Teater & Chonody, 2015). The idea and practice of ageism are prevalent in most societies, and the concept is conveyed and constructed through messages that affect individuals from all age groups (Teater & Chonody, 2015).

The caring of an aging population requires a sufficient level of knowledge and skills pertinent to gerontology.

As a natural outcome of this aging process, physiological, psychosocial, functional, and cognitive changes are expected which lead to common health or chronic problems. Aside from generic healthcare practices, concepts such as individualized care plans for the elderly patients can help minimize functional decline and maintain the health of the elderly as much as possible (Thornlow et al., 2016).

The study findings suggested that the students had a positive attitude towards ageism. Likewise, similar studies conducted in the case of Turkey showed concurrence with our finding (Çınar, Karadakovan, Sivrikaya, 2018; Forlenza et al. 2019; Koç et al., 2020; Özdemir, & Bilgili, 2016). This may be explained by autonomous and invariable expectations of actions impregnated to Turkish Culture such as showing respect for the elderly, seeking advice and opinion of the elderly, and feeling responsible to look after the elderly.

Table 4. Regression analysis of the factors affecting AAS total score and its subscales

Variables	Positive attitude			Negative attitude			Restriction of Life			Positive Ageism			Negative Ageism			AAS total score		
	β	t	p	β	t	p	β	t	p	β	t	p	β	t	p	β	t	p
Age Groups	.120	1.778	.077	-.022	-.314	.754	.060	.865	.388	.114	1.704	.090	.015	.220	.826	.002	.027	.978
Gender	.000	.007	.994	-.103	-	.142	.191	2.797	.006*	-.035	-.522	.602	-	-.632	.528	.083	1.211	.227
Family Type	-.153	-	.055	.000	.004	.997	-.057	-.705	.482	-.149	-	.059	.050	.593	.554	-.101	-	.218
Father's education	.046	.619	.536	-.126	-	.103	.099	1.309	.192	.037	.499	.618	.120	1.529	.128	.118	1.556	.121
Mother's education	-.020	-.275	.783	.038	.493	.623	-.017	-.220	.826	-.050	-.679	.498	-	-.340	.734	-.043	-.566	.572
Lived in the same house with an elderly	-.043	-.639	.523	.066	.940	.348	-.093	-	.173	-.061	-.921	.358	.037	.525	.600	-.089	-	.192
With which elderly person did/do you live?	-.050	-.743	.458	.111	1.568	.118	-.123	-	.078	-.044	-.648	.518	-	-.819	.414	-.109	-	.119
Current location of your elderly relatives	-.009	-.115	.909	-.049	-.574	.567	.058	.705	.481	.003	.033	.974	.007	.077	.939	.040	.483	.630
Choosing to live with mother/father or both in the future	-.271	-	<0.001***	-.035	-.500	.618	-.036	-.532	.595	-.284	-	<0.001*	.085	1.217	.225	-.167	-	.015*
		4.090								4.317							2.461	
R		0.350			0.210			0.288			0.368			0.184			0.276	
Adjusted R ²		0.084			0.002			0.043			0.097			-0.010			0.035	
DW ¹		1.924			1.993			1.904			2.012			2.161			2.108	
F		3.200			1.052			2.061			3.580			0.780			37.678	
p-value		0.001**			0.400			0.034*			<0.001***			0.635			0.030*	
n		380			380			380			380			380			380	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; 1 DW: Durbin-Watson.

The AAS mean score for the "restriction of life" subscale was assessed to be 35.09 ± 5.10 . A similar study contemplating university students in Yozgat and Kastamonu by Koç et al. (2013) disclosed a score of 23.0 ± 4.7 for the "restriction of life" subscale. Moreover, Güven et al. (2012) and Özdemir and Bilgili (2016) reported 21.1 ± 4.0 and 38, respectively. Finally, a study by Dinçer et al. (2016) sampling engineering, business administration, and medical schools disclosed a mean score of 36.0 for the "restriction of life" subscale. Justly, Koç et al. (2013) and Güven et al. (2012) encompassed higher negative attitudes in response to the "restriction of life" subscale. Thus, it is inferred that the difference observed in the total AAS scores could also stem from this subscale.

In the study, the AAS mean score for the "positive discrimination" subscale was assessed to be 31.19 ± 6.04 . Parallel to our research findings, it was 30.2 ± 6.2 in the case of Koç et al. (2013). Also, in the study of Güven et al. (2012) and Dinçer et al. (2016), this value was calculated to be 30.9 ± 5.6 and 31.0, respectively.

In the study, the AAS mean score for the "negative discrimination" subscale was found to be 16.59 ± 3.46 . Close to our research findings, Koç et al. (2013), Güven et al. (2012) and Dinçer et al. (2016) reported mean scores of 19.2 ± 3.4 , 19.5 ± 3.6 and 17.0 for the "negative discrimination" subscale, respectively. Based on the research result, it was found that the AAS total mean score was influenced by the "choosing to live with mother/father or both in the future" variable. Yılmaz and Özkan (2010) and Koç et al. (2013) found a positive correlation between the "choosing to live with mother/father or both in the future" and "positive discrimination" scores. Çilingir et al. (2017) identified that most of the students opted for living with their parents due to possible dispositions such as feeling the urge to be free or considering their parents as a burden. On the contrary, students may develop positive attitudes towards aging by recognizing the process and adopting the positive attitudes of their parents to elders as a role model. This positive attitude of students may be perceived as representative of a traditional family structure that treats elderly people as important. Our findings are in concord with the relevant literature within this respect.

On the other hand, Köse et al. (2015) observed no relationship between the "choosing to live with mother/father or both in the future" variable and either the AAS total or its subscales' scores. A similar study by Vefikuluçay and Terzioğlu (2008) revealed a statistically no significant difference as well. In this study, it was showed that the students, who opted for living with their parents to support them, had presented a more positive attitude towards the elderly.

According to the research findings, students' responses to variables such as "choosing to live with mother/father or both in the future" and "gender" had a correlation with their total AAS and its subscale scores on contrary to a study contemplating nursing students

which yielded statistically no significant relationships between any of the variables such as gender and living with elderly (Fernandes et al. 2018). In a different study carried out in Turkey, it was determined that university students' attitudes towards ageism were positive and these attitudes were influenced by gender and desire to work with the elderly after graduation (Gürel, 2019). It can be inferred that geographic locations may be responsible for deviation in cultural expectations regarding geriatric care.

Studies carried out with university students were found to have a negative image of aging and show a lack of positive stereotypes for the elderly (Campos & Salgado 2013; Sandoval et al. 2016; Sanhueza, 2014).

5. CONCLUSIONS AND SUGGESTIONS

In accordance with the results, planning studies in universities in distinct regions is proposed to determine the views of students and society on ageism and uncover the possible regional variations. Also, conducting research to reveal the reasons for the negative factors contributing to elderly discrimination would help distinguish faculties that fall short on their curricula and need added support via education and counseling programs on elderly discrimination. Considering the precipitous increase in the elderly population on a global scale, it deems necessary to restructure the curricula of healthcare students studying in the departments of nursing, elderly care program, medicine, psychology, social service expert, physiotherapy, and vice versa.

Acknowledgments: I wish to acknowledge the exemplary contribution of the participating students.

Funding: The authors of this study express no potential conflicts of interest, financial, or other similar issues.

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