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Cultural Sensitivity and Competence of Health Sciences Students in Turkey Amid Regional Migration Challenges

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Abstract

In today's increasingly multicultural world, healthcare professionals must develop cultural sensitivity and competence during their training. This descriptive correlational study aimed to examine the relationship between cultural sensitivity and competence among health sciences students. Conducted in April–May 2022 with 481 students from a university in Istanbul, data were collected using the Socio-demographic Characteristics Form, Cultural Sensitivity Scale, and Intercultural Effectiveness Scale. Mean scores were 91.58 ± 12.48 for cultural sensitivity and 52.98 ± 7.25 for intercultural competence. A strong positive correlation was found between the two scales ($r = 0.732$; $p < 0.05$). Regression analysis showed that cultural sensitivity significantly predicted intercultural competence ($R = 0.682$; $R^2 = 0.465$; $p < 0.05$), explaining 46.5% of the variance. The findings indicate that students had high levels of cultural sensitivity and moderate levels of cultural competence. This highlights the importance of integrating cultural competence training in healthcare education to prepare students for diverse clinical environments.

INTRODUCTION

Straddling Europe and Asia, Turkey has long been both a transit and destination country for migrants. Owing to its geopolitical position between the Middle East and Europe and ongoing conflicts in neighboring countries, it currently hosts about 3.9 million migrants and refugees, 90% of whom are Syrians. Around 3.6 million Syrians are registered under Temporary Protection, corresponding to roughly 3.16% of Turkey's population (85.6 million as of 2024).[1]

There are migrants of various statuses in Turkey. Among those in Turkey with residence permits, nationals from Turkmenistan (13%), Azerbaijan (8%), and Russia (7.1%) continue to share the top three positions.[2] When examining the distribution of migrants to Turkey by province in 2024, Istanbul received the highest number of migrants, with 32.8%. While the needs of these individuals differ from those initially encountered, their diverse and multifaceted complex needs become more prominent. Therefore, when working with migrant individuals, attention must be paid to their psychological, physical, and social needs. The number and diversity of migrants and refugees in Türkiye necessitates effective humanitarian assistance, migrant protection, and migration management strategies. To manage migration sustainably in Türkiye and facilitate its potential positive outcomes, the government, international organizations, humanitarian and health organizations are working together to develop comprehensive policies and actions.[3] Among the problems migrants face in Turkey while receiving healthcare services, the most significant has been identified as "socio-economic" problems, followed by legal and political problems, and the third most important problem being communication problems.[4]

Culture is not limited to ethnicity; it is a multidimensional concept that helps shape an individual's sense of self. It encompasses the values, beliefs, attitudes, behaviors, traditions, and customs learned, shared, and transmitted across generations. Cultural competence is the ability to use appropriate verbal and non-verbal communication, show respect for people from different cultures, and act in line with their cultural norms and values. Cultural sensitivity refers to having positive feelings before, during, and after interactions with individuals from different cultures, and to understanding, valuing, and respecting their beliefs, preferences, and needs.[5,6]

Every society has different cultural characteristics. The cultural characteristics of some societies may resemble each other. In some societies, the existence of multicultural societies creates cultural diversity and may giving rise to both similar or different cultural approaches. Intercultural competences can be influenced by many factors

including race, religion, gender, ethnicity, socio-economic status and historical background. In today's rapidly changing world, societies are becoming increasingly multicultural societies. This brings cultural care issues while health professionals deliver their services.[5] Studies have reported that healthcare professionals' cultural values and beliefs affect their decisions and attitudes toward the care they provide.[7–9] Therefore, it is beneficial to learn and correctly understand the behaviors and thoughts of healthcare professionals regarding intercultural competences and intercultural sensitivity.

Health professionals play a vital role not only patient care in the hospital but also community-based preventive health services. Healthcare professionals are expected to be aware of global change from the beginning of their student life and develop skills in this area.[10] Indeed, studies in the literature conducted with health sciences students indicate that various factors influence their values and perceptions regarding intercultural sensitivity and global citizenship. These studies also highlight the need to raise awareness to enhance levels of intercultural sensitivity.[11] Based on this, university students who are being trained to provide healthcare services are expected to be more competent than other disciplines in terms of their professional qualifications and their approach to different cultures. Moreover, educational institutions, professional organizations, and the healthcare system have a moral and professional responsibility to provide cultural care. Incorporating cultural competences and sensitivity of healthcare providers into care will positively influences care safety. Achieving this goal depends on imparting to students the importance of cultural sensitivity and cultural competences during their undergraduate education.[12] The World Health Organization (WHO) emphasizes the importance of cultural awareness in promoting the growth of adaptive, equitable and sustainable health systems, as well as improving public health. This highlights the necessity for healthcare professionals to effectively address cultural competence and sensitivity to reduce health disparities and enhance the quality of patient care.[13]

In Turkey, students enrolled in departments such as nutrition and dietetics, midwifery, nursing, physiotherapy, and health management at health sciences faculties acquire professional knowledge during their undergraduate education. It is recommended that elective courses (such as social work, corporate social responsibility, community service applications, and cross-cultural nursing) be offered to support their cross-cultural sensitivity and cultural competence levels.[14,15] In addition, students in Turkey interact with their social circles, whether that be at university, in dormitories, in hospitals or through student exchange programs and cross-cultural interactions.[10,14,16]

In Turkey, elective courses such as Social Work, Corporate Social Responsibility, Community Service Practices, and Cross-Cultural Nursing are increasingly being offered in health science faculties to support the development of cultural sensitivity and competence. However, the availability and content of these electives may vary significantly across institutions. These courses aim to raise awareness about cultural diversity, encourage empathy, and prepare students for intercultural interactions both in clinical and community settings.[17,18]

In the 21st century, healthcare professionals must be more sensitive when working with individuals from different cultures. In a multicultural society like Turkey, developing cultural sensitivity strengthens social harmony, prevents communication errors, and fosters mutual respect. Effective healthcare requires understanding culturally diverse populations, and cultural competence is increasingly important. Therefore, it is essential to evaluate whether educational institutions adequately impart cultural sensitivity to future healthcare professionals.[19]

Culture guides healthcare professionals in the situations and conditions they encounter throughout their lives. A strong understanding of patients' cultures improves the management of care, enhances patient health, and increases satisfaction. Cultural competence—encompassing awareness, knowledge, and skills—refers to the ability

to provide effective care that meets patients' social, cultural, and linguistic needs. With growing globalization, migration, and health tourism, assessing the cultural competence levels of healthcare professionals has become increasingly important.[20,21]

Intercultural care plays a significant role in the education of health sciences students. The philosophy of health sciences students emphasizes the necessity of providing person-centered care to all ethnic groups in a globalizing world.[14] The importance of health students developing their knowledge and skills regarding cultural differences and being aware of patients' values, beliefs, and lifestyles is emphasized. Patient care practices include providing holistic care to patients. To provide holistic care, health students must be culturally competent and consider cultural differences. Health sciences students develop intercultural sensitivity when they accept that the individuals they care for are culturally different from themselves, respect and appreciate their cultural characteristics.[22] Alienation of patients can lead to inadequate treatment and misdiagnosis, as well as culturally inappropriate service delivery in healthcare providers.[23,24] In a study conducted in Turkey, the quality of patient care and patient satisfaction increased with a culturally sensitive approach, while improvements in health outcomes and a decrease in stress and burnout were observed.[25] Therefore, recent health policies in Turkey have focused on preventing health inequalities, particularly based on ethnicity.[14]

A study by the Institute of Medicine in the United States on racial and ethnic inequalities in healthcare showed that prejudicial behaviors among providers lead to inequitable service delivery and recommended integrating intercultural education into all health programs.[26] In line with this, incorporating content that develops students' intercultural sensitivity, creating opportunities for interaction with peers and patients from different cultures, and reevaluating the duration and scope of cultural competency training in health departments in Türkiye are considered essential. Such education should also help students recognize their own barriers, perceptions, beliefs, and attitudes toward individuals from different cultures.

As in many disciplines, in the field of health professionals, scrutiny of the services provided to cultural minorities has revealed that these services lack adequate resources. In Turkey, research on this topic shows that although the majority of nurses (72.5%) had previously cared for foreign patients from different cultures, their level of cultural competence was found to be moderate. [16] Similarly, a study conducted with primary care workers found that their cultural competence was at a moderate level.In summary, although the characteristics of the research groups and locations may differ, cultural sensitivity and competence are moderate or slightly above moderate. It is expected that students, who will be the health professionals of the future, will show greater sensitivity to this issue during their school years

Healthcare professions collaborate and work together to provide patient- and family-centered care. Inter professional connectivity is, at its core, patient- or family-centered. This collaboration requires each discipline to combine its strengths to form a team. Therefore, assessing the cultural sensitivity and competencies of students in healthcare education is crucial.

This study provides new empirical data on the cultural sensitivity and skills of university students during a period of intense global migration, focusing on students as future changemakers rather than current professionals. It is highly relevant to fields such as education, sociology, migration studies, and psychology, and to policymakers and curriculum designers working to build inclusive societies. The study aims to examine the relationship between cultural sensitivity and cultural competence among students in midwifery, nursing, nutrition and dietetics, health management, and physiotherapy and to describe the current situation in this population. The findings are expected

to guide the training of health sciences students, inform the design of appropriate educational programs, improve the quality of care, and help reduce health inequalities.

EXPERIMENTAL MODEL AND STUDY PARTICIPANT DETAILS

Study Design and Population

This study employed a descriptive and correlational research design to investigate the relationship between cultural sensitivity and intercultural competence among health sciences students. The research was conducted between April and May 2022 with undergraduate students enrolled in the Faculty of Health Sciences at a public university in Istanbul, Türkiye.

Research questions

This study sought to answer the following questions.

1. What is the level of cultural sensitivity of health sciences faculty students?
2. What are the competence levels of health sciences faculty students?
3. To what extent do the subdimensions of cultural sensitivity predict intercultural effectiveness?

Variables of the study

The different cultural sensitivity and cultural competence levels among students in the faculty of health sciences are dependent variables while students' age, academic department, and gender are independent variables.

Sampling and Sample Size

The total population consisted of 2,115 students enrolled in five departments: Midwifery (n = 364), Nutrition and Dietetics (n = 322), Nursing (n = 758), Health Management (n = 240), and Physical Therapy and Rehabilitation (n = 431). Using a 95% confidence interval and a 0.05 margin of error, the minimum required sample size was calculated to be approximately 325. However, the study was conducted with 481 students who volunteered to participate. The sample was selected based on accessibility and voluntariness; no additional sampling criteria were applied.

Participant Demographics

The study included both Turkish and international students. During the academic year, there were 22 international students enrolled in the Faculty of Health Sciences, primarily from Iraq, Syria, Afghanistan, Iran, and various African countries. International students typically attend a one-year Turkish language preparatory program before enrolling in undergraduate courses, which are delivered in Turkish.

Inclusion and Exclusion Criteria

Inclusion criteria were being enrolled in the Faculty of Health Sciences and voluntarily agreeing to participate in the study. Students who left the survey incomplete were excluded from the analysis.

Ethical Considerations

Prior to participation, students were provided with a written explanation of the study's purpose, confidentiality assurances, and participation rights. Informed consent was obtained electronically at the start of the online questionnaire. Ethical approval was obtained from the Marmara University Non-Interventional Clinical Practice Ethics Committee and the Faculty of Health Sciences (Approval Number: 31.02.2022751).

METHOD DETAILS

Data Collection Procedure

Data collection was conducted online using Google Forms due to pandemic-related restrictions. Students were provided with access to the form via university channels. Participation was voluntary, and no compensation was provided.

Data Collection Tools

Data were collected using the Descriptive Characteristics Information Form, Cultural Sensitivity Scale and Intercultural Effectiveness Scale.

Descriptive Characteristics Information Form

This form consisted of questions including students' age, gender, department, grade, high school of graduation, and residence.

Cultural Sensitivity Scale (CSS): Originally developed by Chen and Starosta[6] and adapted into Turkish by İleri.[27] The scale consists of 24 items rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree) across five subdimensions: interaction confidence, enjoyment, attentiveness, respect for cultural differences, and engagement. Items 2, 4, 7, 9, 12, 15, 18, 20, and 22 are reverse-coded. The total score ranges from 24 to 120, with higher scores indicating greater sensitivity. In this study, the Cronbach's Alpha Coefficient was 0.88.

Intercultural Effectiveness Scale (IES): Developed by Portalla and Chen,[28] and adapted into Turkish by Arasaratnam and Doğan.[29] The Turkish version includes 15 items across three subdimensions: behavioral flexibility, respect for interaction, and comfort in interaction. Nine items are reverse-coded. The scale uses a 5-point Likert scale and does not have a cut-off score. Higher scores indicate higher intercultural competence. In this study, the Cronbach's Alpha was 0.78.

Permissions were obtained from the authors for use of both scales.

QUANTIFICATION AND STATISTICAL ANALYSIS

Statistical Software and Analysis

Data were analyzed using SPSS version 23 (IBM Corp.). All analyses were conducted at a 95% confidence interval with a significance level of $p < 0.05$.

Descriptive and Inferential Analysis

Descriptive statistics (mean, standard deviation, quartiles) were used to evaluate the distributions of cultural sensitivity and intercultural effectiveness scores. Spearman's rho correlation test was employed to assess the relationship between the two scales. Regression analysis was conducted to determine the extent to which cultural sensitivity predicted intercultural effectiveness.

ADDITIONAL RESOURCES

No additional tools, datasets, or public repositories were created or used for this study.

FINDINGS

It was determined that 90.2% of participants were between the ages of 18 and 22. Among them, 85.7% of the participants were female, and more than half were studying in the nursing department. In addition, 55.2% of the students stated that their curriculum did not include courses related to social issues. 57.8% of the students stated that their chosen department was their first preference and 54.9% stated that ease of finding job/economic reasons were decisive in choosing the relevant department. 65.7% of the students stated that they lived in the city center before university, and that their university education positively affected their perspective on the profession. Most students (82.9%) expressed a desire to work abroad after graduation but stated that they lacked sufficient proficiency in a foreign language for conversational and comprehension (56.6%) and that they had primarily developed their foreign language skills in high school (54.9%) (Table 1).

6		
	n	**%**
Age		
18-22	481	90.2
23 and above	52	9.8
Gender		
Female	455	85.7
Male	76	14.3
Department of education		
Health Management	69	12.9
Midwifery	118	22.1
Nursing	304	57.0
Nutrition and Dietetics	23	4.3
Physiotherapy and Rehabilitation	19	3.6
Are there courses related to social issues in the field of education?		
Yes	239	44.8
No	294	55.2
1Is your chosen profession your priority over other professions?		
Yes	307	57.8
No	224	42.2
Reason for choosing department/profession		
Ease of Finding a Job/Economic Reasons	287	54.9
Being a Profession I Want	167	31.9
My Family's Request	30	5.7
Teachers' Guidance	20	3.8
Other	19	3.6
Place of residence before starting university		
City Center	350	65.7
District/Village	182	34.1
How education affects your perspective on the profession		
Positive	361	67.9
Negative	72	13.5

No Idea	99	18.6
Desire to work abroad after graduation		
Yes	442	82.9
No	91	17.1
Having friends from different cultures		
Yes	353	66.2
No	180	33.8
Does he/she know a foreign language at a conversational and comprehension level?		
Yes	231	43.4
No	301	56.6
How did you improve your foreign language skills?		
High School Education	285	54.9
University Education	28	5.4
Language Course Center	42	8.1
Self-study via Internet	164	31.6

Examination of total and sub-dimensional scores of the students participating on intercultural competence scale revealed scores of 25.18±5.25 for the behavioral flexibility sub-dimension, 14.49±1.94 for the interaction comfort sub-dimension. 13.32±3.16 for the interaction respect sub-dimension, and a total score of 52.98±7.25 (Table 2).

Table 2. Sub-dimensions of the intercultural competence scale and total mean scores

	Mean ± Sd	Min	Max	Median (quartiles)
Sub-dimensions				
Behavioral flexibility	25.18±5.25	7	35	25 (22-28)
Comfort In Interaction	14.49±1.94	7	19	15 (14-16)
Respect For Interaction	13.32±3.16	4	20	13 (11-15)
Total score	52.98±7.25	38	71	52 (47-58)

When the total and subdimension scores on the Cultural Sensitivity Scale were examined, students scored an average of 27.70±4.70 on the responsibility in interaction subdimension; 24.21±3.85 on the respect for cultural differences subdimension; 17.17±3.70 on the self-confidence in interaction subdimension; 10.97±2.59 on the enjoyment of interaction subdimension; 11.55±2.21 on the attentiveness in interaction subdimension; and 91.58 ± 12.48 on the total scale (Table 3).

Table 3. Sub-dimensions of the cultural sensitivity scale and total mean scores

	Mean ± Sd	Min	Max	Median (quartiles)
Sub-dimensions				
Responsibility in interaction	27.70±4.70	8	35	28 (26-31)
Respect for cultural differences	24.21±3.85	6	30	24 (22-27)
Self- confidence in interaction	17.17±3.70	5	25	17 (15-20)
Enjoyment in interaction	10.97±2.59	3	15	11 (9-13)
Attention in interaction	11.55±2.21	3	15	12 (11-13)
Total score	91.58±12.48	52	120	92 (84-101)

The p-value obtained from the statistical analysis was found to be significant (p< 0.05). According to the results of the regression analysis conducted to predict the relationship, it is seen that students' cultural sensitivity has a positive and moderately significant effect on their intercultural competence. The R^2 value expressed as the explanatory power of the model, was calculated as 0.465 (R=0.682; R^2=0.465; p<0.05). This value suggests that 46.5% of the intercultural competence behavior variable (variance) is explained by the independent variable in the model, cultural sensitivity (Table 4).

Tablo 4. Regression Analysis of Intercultural Sensitivity on the Prediction of Participants' Intercultural Competence

Independent Variable	Dependent Variable	B	Std. Error	β	t	P	R	R^2	F	p
Cultural Sensitivity	Intercultural Effectiveness	16.760	1.706	0.682	9.82	0.00	0.682	0.465	459.255	0.000

Table 5. The results of multiple linear regression analysis of the influencing factors of intercultural effectiveness

Independent variable	**B**	**SE**	**b**	***t***	***p***
CSS_ Interaction Engagement	0.465	0.080	0.302	5.801	< .001
CSS_ Respect for Cultural Differences	0.357	0.078	0.189	4.558	< .001
CSS_ Interaction Confidence	0.545	0.074	0.278	7.396	< .001
CSS_ Interaction Enjoyment	0.928	0.109	0.332	8.504	< .001
CSS_ Interaction Attentiveness	-0.564	0.140	-0.172	-4.020	< .001
95% CI, R^2=0.588, F=150.071, p < .001					

The multiple linear regression model examining the predictors of intercultural effectiveness was statistically significant (F = 150.071, p < .001) and explained 58.8% of the variance (R^2 = 0.588). All cultural sensitivity subdimensions except interaction attentiveness showed significant positive associations with intercultural effectiveness, with interaction enjoyment (β = 0.332), interaction engagement (β = 0.302), and interaction

confidence (β = 0.278) emerging as the strongest positive predictors. In contrast, interaction attentiveness was a significant negative predictor (β = -0.172).

DISCUSSION

Culturally appropriate care for patients is fundamental to the education of health professions, and numerous policies reflect the expectation that health professionals can work effectively with an increasingly diverse population. Culturally appropriate care for patients forms the basis of health professions education, and many policies reflect the expectation that health professionals can work effectively with an increasingly diverse population. In this research, students were evaluated collectively, not on a departmental or course basis, and the study is based on a focus on general trends in cultural sensitivity and competence across the Faculty of Health Sciences. The aim is not to evaluate course-specific effects, but to assess the broader educational context in which all students are trained to become health professional.

Today, societies have become more multicultural because of globalization. Turkish society is a heterogeneous and multicultural society due to its geographical and geopolitical position. In recent years, wars in neighboring regions have led to migration to Turkey from many different cultural backgrounds. Especially in Turkey, in the context of the migrant crisis, cultural diversity has become an increasingly important issue influencing intercultural sensitivity and health care.[16,30]

This study found that 82.9% of students wanted to work abroad after graduation. It is noteworthy that students think about migration during their academic years. Because only more than half of the students reported lacking proficiency in conversational and comprehension. However, it is stated that students who speak at least one language demonstrate higher levels of cultural interaction and cultural sensitivity.[31] Also, in a study it was found that students who knew a foreign language and had a positive perception of interaction with other cultures had a significantly higher level of intercultural sensitivity.[32] In a recent study conducted in Turkey, 55.7% of nurses want to work abroad citing primarily economic reasons, 25.8% psychological and physical violence and 48.9% professional challenges.[33] Ruddock and Turner stated that study abroad experiences improve cultural sensitivity of nursing students and that participating in an international experience can contribute positively to the development of cultural sensitivity.[34] A study found a positive correlation between experiences with individuals from multicultural backgrounds and cultural sensitivity.[35] At the Faculty of Health Sciences, where this study was conducted, some of the students study abroad at partner universities for about 3–6 months as part of the Erasmus program. Proficiency in the language is crucial to benefit from such opportunities. Therefore, only a small number of students benefit from this international interaction.

In this study, more than half of the students had friends from different cultures. In this study, students were asked whether they had ever had a friend from a different culture. In this study, more than half of the students had friends from different cultures. It is estimated that these friends were likely from previous years of school or from their neighbors. This may has a positive effect on cultural sensitivity and cultural competence. In fact, it is considered an important finding that the students taking other cultures into consideration, avoiding judging other cultures and recognizing cultural differences. Studies in the literature conducted with university students have found that those with friends from different cultures demonstrate significantly higher levels of intercultural sensitivity.[36,37] In another study conducted with students from vocational school of health services, it was determined that those perceived interactions with individuals from different cultures positively had higher levels of intercultural sensitivity.[38] These results are consistent with the findings of this study.

It has been reported that proficiency in languages other than the mother tongue may be important for greater intercultural sensitivity of global healthcare providers and should be encouraged.[32,39] Learning additional language not only contributes to the personal and professional development of healthcare professionals but can also empower them to provide culturally sensitive care in a healthcare setting.[40] For this reason, it is thought that university curricula should provide students with opportunities to develop plans to improve their language proficiency and gain international experience.

Globalization is accompanied by cultural diversity. While cultural differences are an integral part of this phenomenon, language barriers can make communication difficult. In this study, most of the students expressed a desire to work abroad after graduation, but they said they do not have adequate foreign language proficiency for conversational and comprehension (56.6%). Promoting English language skills is an important step. Numerous studies have shown that foreign language proficiency affects cultural sensitivity.[41–43] Another study reported that ineffective communication between health professionals and patients can lead to mistrust, and that healthcare professionals encountering language barriers experience stress and a sense of helplessness when providing care.[44] A study reported that communication deficits between nurses and patients can lead to errors in identifying and interpreting symptoms.[45] Similarly, a study involving physiotherapists revealed that language barriers made it difficult to give advice and clear instructions to patients.[46] Likewise, studies have found that students who cannot understand and speak English tend to exhibit lower cultural sensitivity and cultural competence compared to students who can understand and speak English.[39,47] In a study conducted with dietitians, poor communication was identified as the main obstacle to understanding the needs of immigrant patients. They emphasized that the communication barrier prevents establishing a trusting relationship.[48]

Cultural competence is recognized as an important strategy to address health inequalities.[49] The socio-cultural diversity of societies makes it difficult for health professionals in delivering high quality services. In Turkey, there are a limited number of studies examining the relationship between cultural sensitivity and cultural competence among university students enrolled in health sciences programs.[10,30,50] A study conducted by Yalçın et al. claim that students in the faculty of health sciences found that they had a moderate level of intercultural sensitivity.[50] Similarly, a study indicated that the intercultural sensitivity and awareness of the importance of different cultures among health sciences faculty students were at a moderate level.[32] However, Aslan et al. found that students studying in health sciences had a high level of cultural sensitivity.[16]

However, recent studies conducted with nursing students in Turkey found that, although the students showed a high level of intercultural sensitivity, they exhibited a negative attitude towards asylum seekers. In these studies, conducted in Turkey, revealed that xenophobia increased as students' cultural competence capacities decreased. Intercultural communication anxiety among students negatively affected their attitudes towards asylum seekers.[51–55] Students studying at the faculty of health sciences interact with patients from diverse culture backgrounds during their clinical practice courses. They are expected to demonstrate cultural competence and cultural sensitivity in this process.[56] Numerous studies have demonstrated that improving cultural competence is a valuable and practical approach for healthcare providers and educators when engaging with diverse individuals, groups, and communities in today's complex world.[57–59]

Students of health sciences, who provide care to people from different cultures within the healthcare system in Turkey need to enhance their cultural sensitivity and cultural competences to respond to the needs of their patients, particularly when working in different countries after graduation. One of the most effective way to develop cultural

competence is through education. Therefore, effective strategies should be utilized to improve students' knowledge, attitudes and competence regarding cultures during the undergraduate education, to increase cultural sensitivity and cultural competence capacity.[5] It is important to develop cultural competence and sensitivity in students in the long term and sustainably, and to foster their lifelong commitments. Since cultural sensitivity and competence may improve with increased educational and clinical exposure, future studies should stratify students based on their level of study to enable deeper analysis of developmental trends."

The literature shows that cultural sensitivity training has the potential to improve the cultural competence of health professionals. Cultural competence can be defined as an approach that can be taught and is necessary for caring for patients from different cultural backgrounds. In realizing this approach, students' familiarity with and knowledge of different cultures will contribute more cultural competence. In short, cultural competences encourage both curiosity and respect for others.[13]

Students in the faculty of health sciences develop intercultural sensitivity when they accept that the individuals they care for are culturally different from themselves, respect and appreciate their cultural characteristics. In the study conducted in the USA, it was revealed that good cultural competence among healthcare professionals reduce the negative consequences of health behaviors.[60] A study emphasized that training in cultural competences is an effective strategy for enhancing the knowledge, attitudes and skills of health professionals.[61] The training received by health professionals during their training promotes cultural sensitivity and leads to an improvement in patients' compliance with health services.[5] In this context, the following measures are considered effective in developing intercultural competence in universities: the revision of educational curricula, the provision of more opportunities for students to participate in international exchange programs, and the organization of events that bring together individuals from different cultures.

One of the underlying factors contributing to disparities in access to healthcare among disadvantaged groups is cultural differences. Cultural sensitivity and cultural competence are widely acknowledged in the field of public health as effective means of reducing health disparities.[5,62] The findings of this study demonstrate a positive and moderately significant relationship between students' cultural sensitivity and their intercultural competence. Similarly, Kardaş et al. also reported presence of a significant and moderate relationship between both variables in their study. [47] These results are consistent with the findings of our study. This shows that intercultural competence behavior is explained by cultural sensitivity. These findings highlight that student at the faculty of health sciences should further develop cultural communication skills during their academic education to meet the demands of increasingly globalizing world.

Despite the evident cultural sensitivity exhibited by students, it may need to emphasize the transfer of this sensitivity to behavioral dimensions. Indeed, a low level of cultural sensitivity in health professionals may make it difficult to develop cultural competence. This predicament frequently results in the marginalization of patients and the emergence of prejudices.[63–65] Therefore, it is recommended that students studying in health sciences faculties receive standardized training to develop their cultural competence. Moreover, it should be noted that acquiring cultural competence is an ongoing process that may require years of experience for health professionals. In this regard, it is believed that students who have received cultural sensitivity training can gain a better understanding of cultural concepts, change their perspective on their patients and have positive attitudes towards their work.

The multiple linear regression analysis demonstrates that interaction enjoyment, confidence, engagement, and respect for cultural differences are significant positive predictors of intercultural effectiveness, while interaction

attentiveness is a significant negative predictor.[66] Taken together, these results suggest that students who genuinely enjoy intercultural encounters, feel confident in their ability to navigate them, actively participate in intercultural situations, and value cultural diversity are more likely to report higher levels of effective intercultural functioning.[67] Conversely, the negative association with interaction attentiveness may indicate that being overly vigilant or self-monitoring during intercultural encounters can undermine natural, fluid communication, possibly increasing anxiety or self-consciousness and limiting authentic connection.[68] These findings align with broader research showing that affective and motivational factors, such as enjoyment and confidence, are central to effective intercultural engagement, and that excessive attentiveness may sometimes hinder spontaneous interaction by shifting focus from mutual understanding to performance concerns.[69] The strong model fit ($R^2 = 0.588$) underscores the importance of these dimensions in shaping successful intercultural outcomes and suggests that a substantial proportion of the variance in intercultural effectiveness can be explained by these psychosocial characteristics. From an educational and training perspective, the results highlight the value of learning experiences that foster positive emotional involvement, build self-confidence, encourage active engagement, and promote respect for cultural differences, while also helping students develop a balanced level of attentiveness that supports, rather than constrains, their interactions.

CONCLUSIONS AND RECOMMENDATIONS

Considering that individuals from different cultures receive care in the health system in Turkey, it is important that health professionals develop their cultural sensitivity to respond to their care needs. Students training to become health professionals have acquired cultural competence and cultural sensitivity approach. This may be promising for enhancing the knowledge, attitudes and behaviors of health sciences faculty students. It is recommended that students who will be members of the healthcare team during their academic years be supported in developing intercultural sensitivity. To this end, it is strongly encouraged to develop more patient-centered strategies that are free from prejudices in schools and clinical education.

To enhance the intercultural sensitivity levels of students within the faculty of health sciences, it is recommended that initiatives be undertaken to facilitate the learning of a foreign language and the acquisition of international experience during their education.

It would be advisable to organize programs that focus on enhancing English language proficiency, as well as conduct further research to assess students' cultural competences.

Strengths of the Study

The key distinguishing feature of this study from others is that it was conducted with students studying in healthcare programs (nursing, midwifery, nutrition and dietetics, physiotherapy, and health management). This is an important issue given Türkiye's high foreign population. The results of this study may help make the training process more effective for health educators.

Limitations

This study has several limitations. First, students from different departments within the Faculty of Health Sciences were analyzed as a single group; although this allowed for faculty-level inferences, variability in curriculum content, clinical exposure and emphasis on cultural education may have influenced the findings. Second, data on students' academic year or semester were not collected, which limits the ability to examine how cultural sensitivity and competence change over the course of training; future studies should stratify participants by level of study to

explore developmental trends. Third, the cross-sectional design and reliance on self-reported measures may introduce biases (such as social desirability) and prevent assessment of changes over time. Fourth, although random sampling was initially planned, the final sample consisted of self-selected participants, which may have introduced selection bias. Finally, the research was conducted in a single institution, which restricts the generalizability of the results to other universities and cultural or national contexts.

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