Original Article

Intercultural Sensitivity and Compassion in Nursing Students: An Intervention Study in Turkey

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Abstract

Background: Nursing curricula should include intercultural care courses to teach nursing students how to provide effective and correct care to people with different cultural backgrounds. This pretest-posttest quasi-experimental study was conducted between 04 April 2021 and 13 June 2021.

Objective: This paper investigated the effect of an educational intervention on nursing students' intercultural sensitivity and compassion levels.

Methods: This study adopted a pretest-posttest quasi-experimental design. The sample consisted of 48 nursing students taking the Public Health Nursing Course. Data were collected using a sociodemographic and cultural characteristics questionnaire (SCCQ), the Intercultural Sensitivity Scale (ISS), and the Compassion Scale (CS).

Results: Most participants had spent time with people from different cultures (87.5%). Only a few participants had been abroad (8.3%). The experimental group had a higher mean posttest ISS score than the pretest score. Participants had slightly higher posttest CS scores than pretest scores. Participants with high CS scores also had high ISS scores before the intervention.

Conclusions: Nurses care for people with different cultural backgrounds. How quality care they provide depends on how much compassion they have. Nursing students should be offered courses and digital stories about different cultures to raise their compassion and intercultural sensitivity. However, there is very little research into compassion and intercultural sensitivity. Therefore, more intervention studies are warranted to increase nursing students' compassion and intercultural sensitivity.

Impact Statement: This paper shows that the Public Health Nursing course and the intervention (digital story) improved our participants' compassion and intercultural sensitivity levels.

Keywords: Nursing students, intercultural sensitivity, compassion level, digital story

Introduction

Natural disasters, unemployment, and globalization take a toll on everybody. People migrate to have a better life, leading to rapid mobility. People who migrate to other countries bring with them their cultural values and norms and interact with the host culture, resulting in multicultural societies (Bilgic & Sahin, 2019).

As an expectation and value framework, culture is defined as the learned and shared belief, behavior, and value patterns of groups of people who interact with one another (Bećirović & Brdarević-Čeljo, 2018). Culture affects people's beliefs, values, attitudes, habits, and healthcare-seeking behaviors (Demirturk & Karadeniz, 2020; Garneau & Pepin, 2015). Therefore, all healthcare professionals should develop intercultural competence and sensitivity to understand people with different cultural backgrounds (Gozum et al., 2016).

Intercultural sensitivity requires cognitive and emotional preparation (Ozdisci & Tanriverdi, 2020). Globalization and multiculturalism

make holistic nursing care more important than ever because nurses are expected to take their patients' cultural values, beliefs, and practices into account when providing care (Durgun et al., 2019). Today, nursing interventions involve beliefs and practices related to health and illness. Therefore, nurses should have intercultural sensitivity (Aslan & Kizir, 2019). Nurses with high intercultural sensitivity are more likely to be self-aware and approach care from a holistic perspective. They are also more likely to have high moral sensitivity and empathy (Durgun et al., 2019). High intercultural sensitivity ensures positive health outcomes and patient satisfaction.

Nursing education aims to transform students into qualified nurses with knowledge and skills. Nursing curricula should include courses on intercultural care to teach nursing students how to provide effective and correct care to people with different cultural backgrounds. We need to identify nurses' cultural awareness, cultural knowledge, cultural skills, cultural sensitivity, and cultural interaction levels to make sure that they can provide culturally adequate healthcare to specific and vulnerable groups (Yilmaz et al., 2019). Culture-specific educational programs and approaches can make nurses more curious about cultural differences and more willing to recognize and enjoy those differences (Rengi & Polat, 2014). We need further research into nursing students' cultural knowledge, competence, awareness, sensitivity, and related factors. We can use that recent data to design relevant course content and training programs. Sekerci and Bicer (2019) reported a positive correlation between cultural sensitivity and hours spent in clinical practice per week in nursing students. Kilic and Sevinc (2018) have concluded that nursing education focusing on assertiveness and confidence makes nursing students more likely to provide patient-centered and culturally-sensitive care. According to Kacan and Orsal (2020), intercultural nursing courses help students develop cultural sensitivity, empathy, cultural intelligence, and professional values.

Compassion is another vital quality that nursing students develop during their undergraduate years and put into practice in their professional lives. Compassion is a deep awareness and strong willingness to alleviate the suffering of others (Chochinov, 2007). Compassion is a combination of motives, emotions, thoughts, and behaviors (Isgor, 2017). Compassion-based care is critical for patients, nurses, and nursing students and for the development of the nursing profession (Sinclair et al., 2016). Papadopoulos et al., (2016) conducted a study with 1323 nurses in 15 countries. They found that more than half the nurses defined compassion as a core trait for nurses. More than half also defined compassion as one's awareness of others' pain and one's willingness to alleviate that pain. McSherryet al., (2017) conducted a focus-group study in the UK and reported that nursing students believed that self-respect and respect for others played a key role in developing professional values regarding patient care. Students also defined care and compassion as the fundamental principles of nursing. Teskerici and Boz (2019) performed qualitative research into freshman nursing students' first clinical experiences and found that students believed that perceived compassion positively affected nursing interventions and nursing behaviors. Compassion is a multifaceted phenomenon that causes nursing students to feel vulnerable and inadequate while providing care. Therefore, educators should understand how students experience compassion and teach them to provide compassion-based care (Jack & Tetley, 2016). Further research will shed light on this topic and guide nursing educators. This paper investigated the effect of an educational intervention on nursing students' intercultural sensitivity and compassion levels.

Hypothesis 1- Digital story is effective in increasing the cultural sensitivity of nursing students.

Hypothesis 2- Digital story is effective in increasing the compassion level of nursing students.

Methods

Design and sample: This study adopted a pretest-posttest quasi-experimental design. The study was conducted between 04 April 2021 and 13 June 2021. The study population consisted of 58 nursing students taking the Public Health Nursing Course. However, ten students were excluded because they either declined to participate or failed to complete

the data collection tools. Therefore, the sample consisted of 48 participants divided into experimental and control groups based on the last digit of their school number. The experimental group consisted of students with an odd number, while the control group consisted of those with an even number. Both groups received a 60-minute lecture on culture, cultural characteristics, the relationship between health and culture, intercultural nursing, the development of cultural knowledge, problems arising from cultural differences, cultural conflicts, cultural competence, and cultural sensitivity under the heading of "Culture, Health, and Nursing." Afterward, the experimental group read a digital story about cultural conflicts (intervention). The digital story was developed by the researchers based on a literature review (Garneau & Pepin, 2015; Gumus & Kir, 2019; Jack & Tetley, 2016; Parlar & Sevinc, 2018; Teskereci & Boz, 2019; Delibas et al., 2020). Lastly, both groups took a posttest. The lecture was delivered online (Google Meet), and data were also collected online (Google Forms) due to the pandemic.

Digital story: Elif is a ten-year-old primary school student. She lives in Istanbul with her parents and eight siblings. Her parents migrated from an eastern Anatolian village to Istanbul two years ago. Elif was diagnosed with Acute Lymphoblastic Leukemia (ALL) six months ago. Due to her illness, Elif is withdrawn, barely talking to others, and barely making eye contact with nurses. She replies only with "Yes" or "No." She is very unhappy staying in the hospital; she just would not get out of her room. Meals have been a problem for Elif since her first admission. It has been brought to the attention of service nurses and intern nurses that she would not eat her meals. They pay attention to her eating habits and realize that her cultural background plays a key role in her food choices. It is common practice among rural people in Turkey to have *Tarhana* soup for breakfast. Elif refused to eat the hospital breakfast because she is used to having *Tarhana* soup for breakfast. However, she faced dietary problems. The service nurses and intern nurses realized this situation and started to serve her *Tarhana* soup for breakfast. That is how they solved the problem (Figure 1). The digital story was

developed using the Plotagon software package. The researchers obtained permission from the developer of the software. They asked four nursing academics for their opinions about the digital story. They calculated the Content Validity Index (CVI), which was 0.96. It was a 15-minute story. The inclusion criteria were (1) taking the Public Health Nursing Course and (2) being voluntary. The exclusion criteria were (1) missing data and (2) declining to participate.

Data collection: The study was conducted between 04 April 2021 and 13 June 2021. The data collection form consisted of four parts. The first part was a seven-item questionnaire on sociodemographic characteristics (age, gender, family type, etc.). The second part consisted of 11 items on cultural characteristics. The third part was the Intercultural Sensitivity Scale (ISS) developed by Chen and Starosta (2000) and adapted to Turkish by Bulduk et al., (2011). The scale has a Cronbach's alpha of .72 (adequate). It consists of 24 items scored on a five-point Likert-type scale. The instrument has five subscales: (1) interaction engagement, (2) respect of cultural differences, (3) interaction confidence, (4) interaction enjoyment, and (5) interaction attentiveness. The total score ranges from 24 to 120. Higher scores indicate higher levels of intercultural sensitivity (Bulduk et al., 2011). The fourth part was the Compassion Scale (CS) developed by Pommier (2011) and adapted to Turkish by Akdeniz and Deniz (2016). The instrument consists of 24 items scored on a five-point Likert-type scale. The instrument has six subscales: (1) kindness (factor loadings of 0.61-0.74), (2) indifference (factor loadings of 0.56-0.69), (3) common humanity (factor loadings of 0.54- 0.83), (4) separation (factor loadings of 0.51-0.73), (5) mindful awareness (factor loadings of 0.55-0.72), and (6) disengagement (factor loadings of 0.58-0.68). The instrument has a CFI, NNFI, SRMR, and RMSEA of .97, .96, .05, and .06, respectively. The subscales had Cronbach's alpha values of 0.57 to 0.77 (Akdeniz & Deniz, 2016). In this study, Cronbach's alpha value was found to be 0.74.

Ethical considerations: In order to implement the research and collect data, from Selcuk University Aksehir Kadir Yallagoz Health School (Decision No: E-19581359-300-49511; Date of Aproval: 15/02/2021) and

Selcuk University Faculty of Medicine Local Ethics Committee (Decision No: E-70632468-050.01.04-57134; Date of Aproval: 28/03/2021) permission was obtained. In addition, necessary permissions were obtained from the scale owners (via e-mail) and students who agreed to participate in the research (via the button to accept to participate in the study electronically).

Data analysis: The data were analyzed using the Statistical Package for Social Sciences (SPSS, v. 22.0). The Kolmogorov-Smirnov and Shapiro-Wilk tests were used for normality testing. The ISS scores were normally distributed. Number and percentage were used for descriptive statistics. The independent groups t-test, One Way Anova, and Post Hoc test were used to analyze the independent variables. The dependent groups t-test was used to analyze the dependent variables. In addition, Cohen's d was used to calculate the effect size.

Results

The majority of the participants were women (79.2%). Most participants had a nuclear family (79.2%). More than a quarter of the participants spent the better part of their lives in Central Anatolia (35.4%). More than half the participants spent the better part of their lives in cities (60.4%). Most participants had a neutral income (81.2%). The majority of the participants chose to pursue a career in nursing willingly (81.2%). Most participants had spent time with people from different cultures (87.5%). Only a few participants had been abroad (8.3%). Less than half the participants had friends with different religious beliefs (41.7%). The majority of the participants had foreign friends (85.4%). Less than half the participants could speak a foreign language (47.9%). More than half the participants wanted to live in a foreign country (64.6%).

More than half the participants wanted to work with people from different cultures (72.9%). Almost all participants wished to care for patients from different cultures (95.8%). Again, almost all participants thought that the nursing curriculum should include different cultural practices. Only four participants had attended lectures/ congresses/workshops/courses etc., on intercultural nursing before (Table 1). They stated that they had attended a two-hour interview on cultural competence (Not shown in Table).

The experimental group had a significantly higher posttest ISS score (101.17±8.97) than the pretest score (94.04±9.6) (p=0.000). The experimental group also had significantly higher posttest ISS "interaction engagement" (p=0.024), "respect of cultural differences" (p=0.001), "interaction confidence" (p=0.024), "interaction enjoyment" (p=0.000), and "interaction attentiveness" (p=0.015) subscale scores than pretest scores. The digital story and education program had a moderate impact on intercultural sensitivity (Cohen's d: 0.764). The control group had a higher posttest ISS score (98.40±12.11) than the pretest score (97.80±10.12). However, the difference was statistically insignificant. There was a significant difference between pretest and posttest ISS "interaction attentiveness" subscale scores in the control group (p=0.015). Both groups had significantly higher posttest CS scores than pretest scores. However, the difference was statistically insignificant (Table 2).

Female participants had a significantly higher pretest ISS score than their male counterparts (p=0.002). The control group participants' ISS scores differed by geographical region where they spent most of their lives. The Post Hoc test showed that the difference was due to participants who spent most of their lives in the Mediterranean region (p=0.017). The control group participants' ISS scores also differed by income. The Post Hoc test showed that the difference was due to participants with negative income (p=0.031) (Table 3).

There was no difference in pretest ISS scores between participants who had spent time with people from different cultures and those who had not. However, the experimental group had a significantly higher posttest ISS score than the pretest score (p=0.025). There was no significant difference between pretest and posttest ISS scores in the control group. The experimental group participants who had friends with different religious beliefs had a significantly higher posttest ISS score than those who did not (p=0.028). The experimental group participants who could speak a foreign language had a significantly higher posttest ISS score than those who

could not (p=0.037). The experimental group participants who wished to live in a foreign country had a significantly higher posttest ISS score than those who did not (p=0.034). The experimental group participants who wished to work with foreigners had a significantly higher posttest ISS score than those who did not (p=0.004). There was no significant difference between posttest and pretest scores in the control group (Table 4).

Table 5 compares the ISS and CS scores by groups. The sample was divided into two groups (low and high) based on the arithmetic means of CS scores. Afterward, the two groups were compared on ISS scores before and after the intervention. Participants with high pretest CS scores also had high pretest ISS scores. The control group participants with high pretest CS scores had significantly higher posttest ISS scores (p=0.014). The experimental group participants with low and high posttest CS scores had similar posttest ISS scores.

Figure 1. Images from digital story

Table 1. Sociodemographic characteristics

Gender	n
Woman	38(79.2)
Man	10(20.8)
Family type	
Extended family	7(14.6)
Nuclear family	38(79.2)
Broken Family	3(6.2)
Geographical region where they spent most of their life	
Central Anatolia	17(35.4)
Eastern Anatolia	8(16.7)
Southeastern Anatolia	5(10.4)
Mediterranean	7(14.6)
Aegean	8(16.7)
Black Sea	3(6.2)
Settlement where they spent most of their life	

City	29(60.4)
Countryside	19(39.6)
Income	
Negative income (income < expense)	3(6.3)
Neutral income (income = expense)	39(81.2)
Positive income (income > expense)	6(12.5)
Choosing nursing as a profession willingly	
Yes	39(81.2)
No	9(18.8)
Spending time with people from different cultures	
Yes	42(87.5)
No	6(12.5)
Having been abroad	
Yes	4(8.3)
No	44(91.7)
Having friends with different religious beliefs	
Yes	20(41.7)
No	28(58.3)
Having friends with different cultural backgrounds	
Yes	41(85.4)
No	7(14.6)
Speaking a foreign language	
Yes	23(47.9)
No	25(52.1)
Wanting to live in a foreign country	
Yes	31(64.6)
No	17(35.4)
Wanting to work with foreigners	
Yes	35(72.9)
No	13(27.1)
Wanting to care for people with different cultural backgrounds	
Yes	46(95.8)
No	2(4.2)
Finding it necessary to include different cultural practices in the nursing curriculum	
Yes	45(93.8)
No	3(6.2)
Having attended lectures/congresses/workshops/courses etc. on intercultural nursing	
Yes	4(8.3)
No	44(91.7)
Total	48(100.0)

Table 2. Intercultural sensitivity scale (ISS) and compassion scale (CS)

ISS Subscales	Experimental Group (n=24)			Cohen' s d	Control Group (n=24)			Cohen' s d
	Before InterventioN	After Intervention			Before Intervention	After Intervention		
	Min-Max (M ±SD)	Min-Max (M ±SD)	p*		Min-Max (M ±SD)	Min-Max (M ±SD)	p*	
Interaction engagement	22-35 (28.41±3.45)	25-35 (29.89±3.06)	**0.024**	0.454	21-35 (28.75±3.55)	22-35 (29.60±3.20)	0.181	0.252
Respect for cultural differences	18-30 (24.72±3.14)	21-30 (26.72±2.27)	**0.001**	0.729	22-30 (26.10±2.51)	17-30 (25.00±4.70)	0.232	0.292
Interaction confidence	12-25 (17.83±3.00)	14-25 (19.45±2.95)	**0.024**	0.545	16-25 (19.35±2.94)	14-25 (19.70±2.92)	0.594	0.119
Interaction enjoyment	9-15 (11.59±1.43)	11-15 (12.76±1.24)	**<.001**	0.874	9-15 (11.95±2.16)	6-15 (11.75±2.65)	0.691	0.08
Interaction attentiveness	7-14 (11.48±1.46)	10-15 (12.35±1.37)	**0.015**	0.615	9-15 (11.65±1.81)	9-15 (12.35±1.18)	**0.015**	0.458
Total Score	81-116 (94.04±9.68)	85-115 (101.17±8.97)	**<.001**	0.764	82-117 (97.80±10.12)	77-117 (98.40±12.11)	0.775	0.050
CS SUBSCALES								
Self-kindness	15-20 (17.55±1.67)	14-20 (17.69±1.78)	0.670	0.08	11-20 (16.15±2.49)	12-20 (17.25±2.27)	**0.002**	0.462

Indifference	12-20 (17.48±1.92)	10-20 (17.35±2.42)	0.752	0.06	11-20 (15.85±2.54)	8-20 (15.40±4.03)	0.596	0.133
Common humanity	13-20 (17.24±2.17)	11-20 (17.55±2.39)	0.515	0.136	13-20 (17.95±1.85)	13-20 (18.05±1.91)	0.733	0.050
Separation	13-20 (16.89±1.88)	15-20 (17.24±1.41)	0.371	0.211	11-20 (16.65±2.82)	7-20 (16.00±4.1)	0.469	0.185
Mindful Awareness	13-20 (16.62±1.84)	15-20 (17.10±1.39)	0.119	0.294	13-20 (16.40±1.85)	15-19 (17.05±1.09)	0.061	0.428
Disengagement	15-20 (17.69±1.37)	15-20 (17.45±1.59)	0.402	0.162	8-20 (16.20±3.52)	5-20 (16.40±4.21)	0.860	0.051
Total Score	90-119 (103.48±7.86)	89-119 (104.35±7.52)	0.478	0.113	76-117 (99.20±11.47)	72-116 (99.85±14.52)	0.830	0.049

* Dependent Groups t-Test **The effect size value corresponding to each is shown as Cohen's d. Effect size Cohen's d (0.2–0.5 small effect, 0.5–0.8 moderate effect, > 0.8 large effect, > 1.2 very large effect and> 2.0 huge effect)

Table 3. Distribution of intercultural sensitivity scale (ISS) scores by sociodemographic characteristics

	INTERCULTURAL SENSITIVITY SCALE							
	Experimental Group (n=24)				**Control Group (n=24)**			
	Before Intervention		**After Intervention**		**Before Intervention**		**After Intervention**	
Gender	**Min-Max (M ±SD)**	**p**	**Min-Max (M ±SD)**	**p**	**Min-Max (M ±SD)**	**p**	**Min-Max (M ±SD)**	**p**
Woman	82-116 (95.15±9.58)	**0.002**	85-114 (101.31±8.71)	0.816	10.5	0.240	79-110 (95.33±10.44)	0.171
Man	81-86 (84.33±2.89)		90-115 (100.00±13.23)		83-117 (101.13±12.10)		77-117 (103.00±13.65)	
Family type								
Extended	89-115	0.108	89-111	0.394	101.00	0.695	108.00	0.473

	(101.00±9.87)		(101.60±8.88)				
Nuclear	81-116 (91.91±8.25)		85-115 (100.32±9.19)		82-117 (97.88±10.79)		77-117 (97.65±12.62)
Broken	86-114 (100.00±19.79)		108-111 (109.50±2.12)		90.00		92.00
Geographical region where they spent most of their life							
Central Anatolia	82-102 (90.85±7.07)	0.596	85-115 (103.23±9.75)	0.686	82-97 (90.50±6.35)	**0.017**	82-108 (91.75±11.61)	0.343
Eastern Anatolia	81-100 (93.00±10.44)		95-111 (105.67±9.24)		83-112 (98.60±10.64)		79-110 (97.40±12.64)
Southeastern Anatolia	86-115 (100.00±14.53)		90-109 (99.67±9.50)		95-101 (98.00±4.24)		94-108 (101.00±9.89)
Mediterranean	89-116 (98.33±12.96)		89-111 (98.67±9.52)		85.00		94.00
Aegean	88-106 (95.33±9.45)		93-101 (96.00±4.36)		91-107 (95.80±6.72)		77-111 (96.00±13.00)
Black Sea	91-91 (91.00±.00)		96-97 (96.00± .04)		111-117 (113.67±3.06)		103-117 (112.67±7.51)
Settlement where they spent most of their life							
City	82-116 (94.50±10.16)	0.747	89-115 (103.00±9.09)	0.164	82-117 (98.75±10.49)	0.621	77-117 (98.00±13.94)	0.862
Countryside	81-115		85-111		83-112		85-110

	(93.27±9.28)		(98.18±8.28)		(96.38±10.071)		(99.00±9.58)	
Income							
Negative income (income < expense)	82-88 (85.00±4.24)	0.359	85-96 (90.50±7.78)	0.072	111-117 (114.00±4.24)	**0.031**	117-117 (117.00±.00)	0.054
Neutral income (income = expense)	81-116 (94.38±9.78)		89-114 (101.08±8.53)		82-113 (96.87±9.55)		79-110 (97.00±9.97)	
Positive income (income > expense)	86-106 (97.33±10.26)		101-115 (109.00±7.21)		91-93 (91.67±1.16)		77-111 (93.00±17.09)	
Choosing nursing as a profession willingly							
Yes	81-116 (94.08±9.22)	0.954	85-114 (100.04±8.59)	0.139	83-117 (98.81±9.74)	0.385	77-117 (98.75±12.57)	0.804
No	82-114 (93.80±12.93)		93-115 (106.60±9.66)		82-107 (93.75±12.15)		82-108 (97.00±11.60)	

* Independent Groups t-Test **One Way Anova Test

Table 4. Distribution of intercultural sensitivity scale (ISS) scores by cultural characteristics

	INTERCULTURAL SENSITIVITY SCALE							
	Experimental Group (N=24)				Control Group (N=24)			
	Before Intervention		After Intervention		Before Intervention		After Intervention	
Spending time with people from different cultures	Min-Max (M ±SS)	p	Min-Max (M ±SS)	p	Min-Max (M ±SS)		Min-Max (M ±SS)	p
Yes	81-116 (95.33±9.91)	0.115	89-115 (102.75±8.72)	**0.025**	82-117 (97.84±10.39)	0.938	77-117 (98.47±12.43)	0.909
No	82-97 (87.80±5.76)		85-102 (93.60±6.19)		97.00		97.00	
Having been abroad								
Yes	86-102 (94.25±7.14)	0.963	92-115 (107.250±10.34)	0.147	-	-	-	-
No	81-116 (94.00±10.15)		85-114 (100.20±8.56)		82-117 (97.80±10.12)		77-117 (98.40±12.11)	
Having friends with different religious beliefs								
Yes	82-116 (99.90±11.76)	**0.028**	94-115 (105.09±7.46)	0.065	83-117 (97.50±10.32)	0.899	77-117 (101.00±13.18)	0.351
No	81-102 (90.44±6.08)		85-114 (98.78±9.14)		82-113 (98.10±10.47)		79-110 (95.80±10.98)	
Having friends with different cultural backgrounds								
Yes	81-116 (95.13±10.37)	0.239	85-115 (102.26±8.95)	0.206	82-117 (97.00±9.73)	0.126	77-117 (98.11±12.36)	0.648
No	84-99		92-114		113.00		104.00	

	(89.83±5.04)		(97.00±8.44)					
Speaking a foreign language								
Yes	81-116 (97.60±11.49)	**0.037**	89-114 (102.33±8.33)	0.480	82-117 (100.63±10.81)	0.321	82-117 (102.00±12.55)	0.290
No	82-100 (90.21±5.41)		85-115 (99.93±9.75)		83-113 (95.92±9.64)		77-117 (96.00±11.72)	
Wanting to live in a foreign country								
Yes	82-116 (96.25±11.78)	0.151	85-115 (104.31±9.27)	**0.034**	82-117 (97.19±11.05)	0.602	77-117 (99.38±12.54)	0.486
No	81-100 (91.31±5.53)		89-111 (97.31±7.12)		95-107 (100.25±5.38)		79-104 (94.50±10.79)	
Wanting to work with foreigners								
Yes	82-116 (95.41±10.28)	0.180	85-115 (103.23±9.07)	**0.004**	82-117 (98.07±11.34)	0.860	77-117 (99.71±13.89)	0.344
No	81-99 (89.71±6.26)		89-102 (94.71±4.82)		85-107 (97.17±7.39)		85-104 (95.33±6.25)	
Wanting to care for people with different cultural backgrounds								
Yes	81-116 (94.32±9.73)	0.408	85-115 (101.57±8.86)	0.210	82-117 (97.32±10.16)	0.365	77-117 (98.11±12.36)	0.648
No	86.00		90.00		107.00		104.00	
Finding it necessary to include different cultural practices in the nursing curriculum								
Yes	81-116 (93.89±9.83)	0.685	85-115 (100.82±8.92)	0.272	82-117 (98.78±10.01)	0.203	77-117 (99.00±12.65)	0.073
No	98.00		111.00		83-95 (89.00±8.49)		92-94 (93.00±1.41)	
Having attended lectures/congresses/workshops/courses etc. on intercultural nursing								
Yes	89-91	0.060	93-111	0.858	102.00	0.682	98.00	0.974

	(90.33±1.16)		(100.33±9.45)					
No	81-116 (94.46±10.15)		85-115 (101.27±9.09)		82-117 (97.58±10.35)		77-117 (98.42±12.44)	

* Independent Groups t-Test   **One Way Anova Test

Table 5. Comparison of ıntercultural sensitivity scale (ISS) and compassion scale (CS) scores by groups

		Intercultural Sensitivity Scale						
		Before Intervention (n=24)			**After Intervention (n=24)**			
EXPERIMENTAL GROUP	**Compassion level**	**Min-Max (M ±SD)**	**p**		**Compassion level**	**Min-Max (M ±SD)**	**p**	
	Low (≤103)	82-100(89.07±5.41)	**0.005**		Low (104 and ↓)	85-115 (100.77±10.53)	0.832	
	High (≥104)	81-116(98.67±10.62)			High (105 and ↑)	89-111(101.50±7.82)		
		Before Intervention			**After Intervention**			
CONTROL GROUP	**Compassion level**	**Min-Max (M ±SD)**	**p**		**Compassion level**	**Min-Max (M ±SD)**	**p**	
	Low (≤99)	82-97(89.38±5.39)	**0.001**		Low (99 and ↓)	77-111(90.63±12.79)	**0.014**	
	High (≥100)	90-117(103.42±8.52)			High (100 and ↑)	92-117(103.58±8.70)		

* Independent Groups t-Test

Discussion

Intercultural sensitivity is based on understanding the differences between one's own culture and other cultures (Bilgic & Sahin, 2019). İntercultural sensitivity plays a crucial role in effective care. Intercultural sensitivity increases the quality of healthcare services because it brings with it effective communication, effective initiative, and increased satisfaction (Baksi et al., 2019). The experimental group had a significantly higher posttest ISS score than the pretest score. The digital story and education program had a moderate impact on intercultural sensitivity **(Cohen's d:** 0.764).The experimental group also had significantly higher posttest ISS "interaction engagement,""respect of cultural differences,""interaction confidence,""interaction enjoyment," and "interaction attentiveness" subscale scores than pretest scores. The control group had a higher posttest ISS score than the pretest score. However, the difference was statistically insignificant. The control group had a significantly higher posttest ISS "interaction attentiveness" subscale score than the pretest score (Table 2). Our participants had higher intercultural sensitivity than has been reported by earlier studies (Karadag & Berivan, 2018; Yurttas & Aras, 2020; Durgunet al., 2019; Bilgic & Sahin, 2019; Parlar & Sevinc, 2018). Our results indicate that the intervention (digital story) helped nursing students develop intercultural sensitivity. A culturally competent person considers everybody unique and realizes that their experiences, beliefs, values, and language influence their perceptions (Altan, 2018). We should provide nurses with the opportunity to develop intercultural sensitivity because nurses with that skill are more likely to provide quality care and contribute to their profession.

Universities should provide students with appropriate courses and learning environments to turn them into sensitive and conscious healthcare professionals capable of meeting the care needs of patients with different cultural backgrounds (Baksi et al., 2019). Nursing students who receive an education based on culturally sensitive curricula and approaches can become more curious about other cultures and cherish cultural differences. Such an education can also encourage educators to approach students from a culturally conscious perspective (Bulduk & Usta, 2017). Yilmaz et al. (2017) found that Turkish nurses with a bachelor's degree and those who had attended nursing courses had high ISS "respect of cultural differences" subscale scores. Yilmaz et al. (2019) also reported that nurses who had received in-service training on culture and had taken a course on intercultural nursing had high ISS "intercultural sensitivity" subscale scores. Ozdisci and Tanriverdi (2020) staged an intervention on intercultural sensitivity and determined that nurses had significantly higher intercultural sensitivity after the intervention than before the intervention. Research shows that educational interventions and courses help students develop intercultural sensitivity (Yuksel & Orsal, 2020). However, this is the first study to investigate the effect of a digital story on nursing students' intercultural sensitivity levels. Therefore, we think that our results will fill a gap in the literature.

Female participants had higher pretest ISS scores than their male counterparts. However, there was no difference in ISS scores (either pretest or posttest) between male and female participants in the control group (Table 3). Some studies show that women have higher intercultural sensitivity than men (Yurttas & Aras, 2020; Bećirović & Brdarević-Čeljo, 2018; Bilgic & Sahin, 2019; Parlar & Sevinc, 2018). However, some other studies report no gender difference (Koc et al., 2020; Delibas et al., 2020). On the other hand, Durgun et al., (2019) found that men had higher intercultural sensitivity than women. The critical point is that intercultural sensitivity is key to unbiased and effective nursing care. In other words, both male and female nurses should have intercultural sensitivity to provide quality care to patients with different cultural backgrounds.

Interacting with people from different cultural backgrounds significantly affects the level of intercultural sensitivity (Meydanlioglu et al., 2015). Nurses who have attended lectures/congresses/workshops/courses etc. on intercultural nursing and have been abroad before, have friends with different religious beliefs and cultural backgrounds, can speak foreign languages, wish to live and work in a foreign country, wish to care for patients with

different cultural backgrounds, and think that nursing curricula should include different cultural practices are more likely to have higher intercultural sensitivity. Our participants who had spent time with foreigners before had significantly higher posttest ISS scores than pretest scores. In addition, participants who wished to live in a foreign country and work with foreigners had significantly higher posttest ISS scores than pretest scores (Table 4). Karadag and Berivan (2018) conducted a study with nurses working in the Family Health Centers (FHC) and State Hospital in a province in eastern Turkey. They found that nurses who had no difficulty providing care to patients with different cultural backgrounds, those who knew about the concept of"intercultural nursing," and those who were interested in the topic had high intercultural sensitivity levels. Bilgic and Sahin (2019) also reported that students who had foreign friends and wished to spend time with foreigners had higher intercultural sensitivity than other students. Koc et al., (2020) determined that nursing students who could speak a foreign language and wished to work abroad had higher intercultural sensitivity than others. Delibas et al., (2020) conducted research on second-year students of a vocational school. They found that students who did not think they might have difficulty providing care to foreigners had higher intercultural sensitivity than those who did. We should identify the factors affecting intercultural sensitivity so that educators can design the right nursing approaches and that students can find an opportunity to increase their intercultural sensitivity levels.

Patients, parents, clinicians, and politicians regard compassion as the cornerstone of quality healthcare (Sinclair et al., 2016). Compassion allows nurses to recognize patients' physical, spiritual, and emotional needs and contribute to patient satisfaction. Therefore, compassion is considered a vital value in nursing (Lee & Seomun, 2016). Our intervention caused a slight increase in the compassion levels of our participants (Table 2). Their compassion levels were similar to what has been reported by earlier studies (Karadag & Berivan, 2018; Arkan et al., 2020). Universities should offer interventions and share their results to help nursing students improve their compassion levels.

Nurses should have compassion for people with different cultural backgrounds because they sometimes find themselves in situations where they are expected to care for foreigners. Undergraduate and graduate programs should offer training on compassion and intercultural sensitivity to make sure that students provide quality care and advance the status of their profession (Karadag & Berivan, 2018). To that end, we need more studies to investigate the relationship between compassion and intercultural sensitivity. Our participants with high pretest CS scores also had high pretest ISS scores. The control group participants with high compassion levels had higher intercultural sensitivity after taking the course. On the other hand, the intervention (digital story) increased the compassion levels of all experimental group participants (Table 5). Parlar and Sevinc (2018) reported that students who were interested in and wished to learn about intercultural nursing had higher compassion levels and that compassion and intercultural sensitivity affected each other. Demirel et al. (2020) detected a positive correlation between intercultural sensitivity and compassion in midwifery students. They also found that intercultural approaches affected compassion levels. However, there is only a small body of research into compassion and intercultural sensitivity. Therefore, more research is warranted on this topic. We also need more intervention studies that aim to increase nursing students' compassion and intercultural sensitivity levels.

Limitations: This study had four limitations. First, the results are sample-specific, and therefore, cannot be generalized to the whole population. Second, the study was conducted during the COVID-19 pandemic. Third, we did not focus on clinical practices that might affect professional development. Fourth, participants had received distance learning for one and a half years.

Conclusion: Compassion and intercultural sensitivity are two critical components of the nursing profession. Nurses with high compassion and intercultural sensitivity are more likely to provide quality care, ensure patient satisfaction, and increase institutional efficiency. Universities and hospitals should provide nursing students and nurses with educational interventions to help them develop compassion and intercultural

sensitivity. Our results showed that the Public Health Nursing course and the intervention (digital story) improved our participants' compassion and intercultural sensitivity levels. Students who develop compassion and intercultural sensitivity during their undergraduate years are more likely to have more effective and productive professional lives. This suggests that educators should incorporate educational interventions and digital stories into their lectures to help their students develop compassion and intercultural sensitivity. In addition, healthcare institutions should provide their staff with in-service training, courses/seminars, and activities to encourage them to improve their compassion and intercultural sensitivity levels. To achieve those goals, we first need more research into compassion and intercultural sensitivity.

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