Original Article

Multicultural Sensitivity and Related Factors in Nursing Students of Zanjan University of Medical Sciences During the COVID-19 Pandemic

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Abstract

Background & Objective: Holistic care is provided by the ability to communicate effectively with patients from different cultures. In this respect, multicultural sensitivity helps communicate effectively with the patient. Therefore, the present study was conducted to investigate the multicultural sensitivity of nursing students and the factors affecting it during the COVID-19 pandemic.

Materials & Methods: This cross-sectional correlation study was conducted on 245 nursing students of the Zanjan University of Medical Sciences in 2021. Data were collected using two questionnaires of demographic information and multicultural sensitivity. The multicultural questionnaire scored multicultural sensitivity on a Likert scale in the range of 1 to 5. Scores ≤ 3 were unfavorable multicultural sensitivities > 3 were desirable cultural sensitivities. Data analysis was performed using an independent t-test, analysis of variance, and logistic regression in the SPSS statistical software.

Results: The mean total score of multicultural sensitivity was 3.64 ± 0.48. Also, the mean of multicultural sensitivity based on gender, residence, religion, bilingualism, semester, and field of study did not show a statistically significant difference ($P < 0.05$). The logistic regression model showed that gender and field of study could predict 3 to 6% of changes in multicultural sensitivity.

Conclusion: The findings of this study showed that the multicultural sensitivity of students is favorable, despite their distance from the university environment. However, it is recommended to conduct training to make them more familiar with the cultural habits and health of Iranian ethnic groups.

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Introduction

Cultural diversity means differences in lifestyle, language, values, norms, and other components of culture within or between groups (1). This diversity is increasing in different communities because of job opportunities, better living conditions, and access to health facilities and other facilities (2, 3). Different cultures pose many challenges to communication in clinical settings and can lead to adverse outcomes for patients (4). Nurses have to communicate effectively with patients from different cultures to meet the needs of their patients and prevent adverse outcomes (5). Therefore, all physical, mental, emotional, spiritual, social, and economic aspects of the patients are considered with an emphasis on their dignity.

Holistic care in nursing is comprehensive patient care in which the nurse's knowledge, theories, specialties, insights, and creativity are used. Therefore, the patients' physical, mental, emotional, spiritual, social, and economic aspects are considered with emphasis on their dignity (6). Holistic care occurs when the nurse understands the patient's cultural values and is aware of and sensitive to the cultural differences between oneself and the patient (7).

Multicultural sensitivity refers to the ability to respond appropriately to the attitudes, feelings, or circumstances of different races, nationalities, religions, languages, and cultures (1). Multicultural sensitivity is a dimension of cultural competence by which one can respond appropriately to the attitudes, feelings, or circumstances of people with different racial, religious, linguistic, and cultural heritage (8). Tucker et al. introduced patient-centered care with multicultural sensitivity and emphasized paying attention to patient needs and wants and patient empowerment. Such care makes the patient feel comfortable, respected, and trusted in service delivery (9).

In (3, 10), the multicultural sensitivity of nurses was moderate. However, in (11), the multicultural sensitivity of nurses in suburban hospitals exposed to diverse cultures was reported to be high. A positive association between multicultural sensitivity and assertiveness has also been reported (10).

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Valizadeh et al. showed that culturally sensitive care in caring for a sick child has consequences such as honesty of parents in providing information and expression of cultural needs, family satisfaction, reducing family stress, promoting nurse-child/family communication, and preventing misunderstandings (1).

Iran is a multicultural country, and ethnic and linguistic diversity is one of its key features. Because of its privileged position as a global crossroads, the historical land of Iran has always been the crossroads of different cultures and civilizations and the arena of various movements and invasions (12). The coexistence of Persian, Azeri, Kurdish, Gilak, Lurs, Arab, Mazani, Baluch, Bakhtiari, Talesh, and Turkmen ethnic groups causes cultural diversity in this country. Therefore, different religions and ethnicities in a community raise the need to pay attention to culture in the face of individuals (1). Zanjan is an Iranian immigrant city whose urban population has increased from 28.8% to 63.4% during the last 40 years (13). This increase in Zanjan's population has created great cultural diversity in the city. Most medical and paramedical students, especially nursing students, are non-native and do not speak Turkish. Most illiterate patients speak only their local language and dialect, which complicates the communication between students and patients. Besides, patient and family dissatisfaction affects therapeutic interventions and optimal care. Zanjan province is composed of the Aryan, Georgian, and Khamseh tribes. The people of this province speak Azeri Turkish, but the proximity to the capital (Tehran) has led to a tendency toward Persian. In addition, Turkish is mixed with Gilaki in its north, Kurdish in its southwest, Azerbaijani Turkish in its west, and Tati in its south (13). Multicultural sensitivity is made possible by the ability to communicate effectively with patients from different cultures (5). In the COVID-19 pandemic, where the presence of students in clinical fields has diminished, students' multicultural sensitivity decreased due to less interaction with patients. Communication with patients affected and prevented face-to-face communication and receiving non-verbal messages due to using personal protective equipment such as masks and face shields, interaction with patients, and increased multicultural sensitivity in students. This problem was more common in nursing and other medical students who were non-native and had a distinct language and dialect from hospitalized patients. Evaluating the development of multicultural sensitivity and related factors in nursing students is essential during their studies. Therefore, regarding the knowledge gap in the status of multicultural sensitivity and related factors in nursing students of the Zanjan University of Medical Sciences, especially in pandemic COVID-19, this study aims to determine the level of multicultural sensitivity and related factors in nursing students of the Zanjan University of Medical Sciences in COVID-19 pandemic.

Material & Methods

This was a descriptive cross-sectional study. The study population included students of the Faculty of Nursing affiliated with the Zanjan University of Medical Sciences. The Zanjan University of Medical Sciences comprises eight faculties. In the School of Nursing, 600 undergraduate students are studying in the fields of nursing, midwifery, operating room nursing, and anesthesia, and 100 students are studying in 5 postgraduate fields. The sample size was estimated by performing a pilot study on 30 students. By considering $\alpha = 0.05$, $\delta = 0.76$, and $d = 0.1$, the sample size was estimated to be 221 as follows:

$$n = \left(\frac{z/\delta}{d}\right)^2$$

Considering a 10% dropout rate, the final sample size was 245 people. Inclusion criteria were willingness to participate in the study, studying in the third semester and above, and studying in one discipline of nursing, midwifery, operating room, and anesthesia. Because the 3rd semester and older students have experience in the clinical setting, this criterion was considered for selecting the participants.

Data collection tools included a demographic information questionnaire and a multicultural sensitivity questionnaire.

The questionnaire included questions about age, gender, semester, place of residence, bilingualism, place of residence, and religion.

The Multicultural Sensitivity Questionnaire was designed by Jibaja et al. (2013). This questionnaire comprises five dimensions and 21 items on a 5-point Likert scale ranging from 1 "strongly disagree" to 5 "strongly agree". Scores ≤ 3 were considered unfavorable multicultural sensitivities and > 3 as desirable multicultural sensitivities. This questionnaire has 5 dimensions: 1) interaction engagement, 2) respect for multicultural differences, 3) interaction confidence, 4) interaction enjoyment, and 5) interaction attentiveness. The reliability of the questionnaire with Cronbach's alpha was reported to be 0.89 (14).

Regarding the validity of the translation process, it was translated based on the standards recommended in the guidelines (15). In this study, two people translated the questionnaire into Persian. Three experts approved the translation of the questionnaire. The content validity index (CVI), based on the opinion of 10 experts, was calculated to be 93% for all items. Then, the

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questionnaire was translated into English again and matched with the original questionnaire. Two nursing professionals confirmed the English fluency of the retranslated questionnaire. The reliability of the questionnaire was determined using Cronbach's alpha coefficient of 0.86.

Sampling was done online. The link to the questionnaire and a letter explaining the research objectives and getting informed consent were provided to students through WhatsApp, Telegram, and email.

SPSS statistical software version 22 was used for data analysis. After examination by the Kolmogorov-Smirnov test, the normality of the data distribution was determined. Descriptive statistics, frequency, mean, and standard deviation (± SD) were used to evaluate the baseline data. In addition, independent t-test, analysis of variance (ANOVA), and post-hoc test with the least significant difference of LSD were used to evaluate the level of multicultural sensitivity based on demographic variables. A logistic regression test was used to predict the predictability of demographic variables in multicultural sensitivity. The significance level was considered less than 0.05.

The ethics committee of Zanjan University of Medical Sciences approved the study with the ethics code IR.ZUMS.REC.1399.201. At the beginning of the online questionnaire, the research objectives were explained on the first page. If the participants were willing to participate in the study, they were asked to complete the questionnaires by approving the consent form.

Results

A total of 245 nurses were recruited via the online data gathering and their data were analyzed. The results showed that 28.6% (n = 70) of the participants in semester 3, 20.8% (n = 51) in semester 4, 13.9% (n = 33) in semester 5, 21.2% (n = 52) in semester 6, 8.2% in semester 7 (n = 20), and 7.8% (n = 19) were studying in the 8th semester; 63.6% (n = 131) were natives and 46.6% (n = 114) were non-natives; 95.5% (n = 234) were Shiites and 4.5% (n = 11) were Sunnis; 77.2% (n = 189) were bilingual and 22.9% (n = 56) were monolingual.

According to the obtained total multicultural sensitivity score, 12.7% (n = 31) of the participants had unfavorable multicultural sensitivity and 86.9% (n = 213) had favorable multicultural sensitivity. Also, the mean overall score of multicultural sensitivity (3.65 ± 0.48) was at a favorable level. Respect for different cultures had the highest mean (3.96 ± 0.75) interaction confidence had the lowest mean (3.4 ± 0.57) (Table 1).

Table 1. The mean scores of dimensions and the overall score of multicultural sensitivity in participants

Items	Minimum	Maximum	Mean ± SD
Interaction engagement	1.57	4.9	3.5 ± 0.52
Respect of cultural differences	1.17	5	3.96 ± 0.75
Interaction confidence	1.6	4.8	3.4 ± 0.57
Interaction enjoyment	1	5	3.8 ± 0.87
Interaction attentiveness	1	5	3.6 ± 0.62
The overall score of cultural sensitivity	2.19	4.67	3.65 ± 0.48

SD = Standard Deviation

The results of the independent t-test did not show a statistically significant difference between the mean overall score of multicultural sensitivity based on gender, residence, bilingualism, and religion ($P < 0.05$) (Table 2).

ANOVA results for the difference in the mean overall score of multicultural sensitivity based on the variables of the field of study and the semester did not show a significant difference (Table 3).

Table 2. Comparison of the mean overall score of participants' multicultural sensitivity based on the variables of gender, residence, religion, and bilingualism

Variable		T-independent test			
		Mean ± SD	t	df	P
Gender	Men	3.69 ± 0.54	-1.28	243	0.20
	Women	3.67 ± 0.44			
Residence	Native	3.6 ± 0.47	-1.34	243	0.18
	Non-native	3.7 ± 0.49			
Religion	Shia	3.6 ± 0.49	-1.39	243	0.25
	Sunni	3.8 ± 0.37			
Being bilingual	Yes	3.63 ± 0.49	-0.707	243	0.306
	No	3.96 ± 0.45			

SD = Standard Deviation

Table 3. Comparison of the mean overall score of participants' multicultural sensitivity based on the majors and semester variables

Variable		ANOVA			
		Mean ± SD	F	df	P
Majors	Nursing	3.66 ± 0.46	1.67	3	0.17
	Operating room nursing	3.68 ± 0.56			
	Anesthesia nursing	3.75 ± 0.54			
	Midwifery	3.47 ± 0.45			
Semester	Three	3.6 ± 0.53	2.16	5	0.56
	Four	3.7 ± 0.47			
	Five	3.7 ± 0.49			
	Six	3.5 ± 0.41			
	Seven	3.5 ± 0.43			
	Eight	3.7 ± 0.47			

SD; Standard Deviation

A logistic regression model with the forward likelihood ratio method was used to investigate the predictors of multicultural sensitivity. The model was implemented in two steps. The results of the omnibus holistic test showed that the model fits in the second step (chi-square = 67.8, df = 1). The results showed that two variables of gender and majors could predict students' cultural sensitivity ($P < 0.013$).

The Cox & Snell R-square and Nagelkerke R-square values were 0.035 and 0.067, respectively. These coefficients showed that these two variables could only predict 3 to 6% of multicultural sensitivity changes. The odds ratios for gender and majors were 3.13 and 0.66, respectively. Therefore, gender and major increased multicultural sensitivity by 3.13 and 0.66 times (Table 4).

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Table 4. Logistic regression analysis to predict multicultural sensitivity in the participants

Variable	Logistic regression analysis					
	B	S.E	Wald	df	P	EXP(B)
constant	0.89	0.64	1.93	1	0.16	2.42
Gender	1.14	0.448	6.46	1	0.011	3.13
Majors	-0.422	0.19	4.99	1	0.025	0.66

Discussion

This study's result showed that the multicultural sensitivity of students was in favorable conditions. The mean of multicultural sensitivity based on gender, residence, religion, bilingualism, semester, and majors did not show a statistically significant difference. Also, the logistic regression model results showed that gender and majors could predict only 3 to 6% of multicultural sensitivity changes.

In a study in Turkiey, Yilmaz et al. (2017) reported that the multicultural sensitivity of nurses in suburban hospitals promoted multicultural sensitivity (11) because of their greater contact with patients from different cultures. Also, the study by Zialeme et al. (2016) in Tabriz (Iran) showed that the mean score of multicultural sensitivity of nurses was moderate (3). This difference can be related to nurses' training in knowing different cultures. Also, another study showed that the multicultural sensitivity of nursing students was moderate (10). Therefore, the relationship of the students of the present study with patients from different cultures has promoted their multicultural sensitivity.

Also, the results showed that the highest mean score of multicultural sensitivity was related to the dimension of respect for cultural differences, and the lowest mean was related to the dimension of interaction confidence. The high score on the dimension of respect for cultural differences indicates a high understanding of students of the cultural differences between them and patients.

Low interaction confidence scores can be due to students' inability to communicate effectively due to the COVID-19 pandemic conditions and using personal protective equipment (e.g., masks, shields, and glasses), fear of misunderstandings due to cultural differences, and fear of the unknown. This finding can also be related to the lack of essential intercultural education in educating students in both studies and, therefore, the lack of confidence in interaction with patients from different cultures. Teaching how to communicate, teaching the customs of different cultures, and helping resolve cultural conflicts can increase students' confidence in interaction. In the study by Toda et al. (2018) in Japan, the lowest score was related to the dimension of interaction confidence (5). In another study by Erkin et al. (2017) in Turkey, the highest and lowest mean of multicultural sensitivity were related to the dimensions of interaction engagement and interaction enjoyment, respectively (16).

Also, according to the results of this study, gender and majors were determined as predictors of multicultural sensitivity. Therefore, women were more culturally sensitive than men. Kılıç et al. reported a significant relationship between gender and cultural sensitivity (10). The similarity of the findings could be related to the high proportion of women participants in both studies. One of the effective factors is the existence of attitudes rooted in stereotyped thoughts about each ethnic group that manifest themselves in the value judgments of human beings (17). A strategy to promote multicultural sensitivity is the tendency toward a cultural approach to the ethnic phenomenon. This approach considers customs, subcultures, and all cultural components related to ethnic groups, local cultures, and ethnicities (18). Also, improving the cultural competence of nurses increases the observance of patients' rights, attention to their cultural values, and efforts to reduce patients' suffering (19). Therefore, strategies should be taken to increase the multicultural sensitivity of students, including familiarity with the values governing different cultures and ethnicities.

Conclusion

The present study shows the need to pay attention to the multicultural sensitivity of medical sciences students. Respect for the cultures, values, and beliefs of individuals in the community is a professional responsibility and is in line with the autonomy of individuals. Given the importance of the impact of culture on people's health and its role in community health, those in charge of medical education should familiarize medical students with existing subcultures and be effective in health. However, promoting multicultural sensitivity, familiarizing students with different cultures in the community, and accepting and respecting them should be done from the years before students enter the university to institutionalize respect for different cultures. Overall, it is suggested to conduct

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research in this field to know more about these cultures. The explanation is that better knowledge of subcultures by the medical staff causes effective interventions to strengthen the correct beliefs about people's health.

Limitation

One limitation of this study was using an electronic questionnaire because of the COVID-19 pandemic conditions, which could limit the generalizability of the findings. Therefore, using probabilistic sampling is recommended for research in a larger statistical population.

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Conflicts of interest

The authors have expressed no conflict of interest.

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