Research article

An exploratory study of intercultural effectiveness scale in nursing students

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ABSTRACT

Culture is a fundamental element of intercultural relationships and contributes to its effectiveness. This methodological study' s purpose is to test the Turkish version of the Intercultural Effectiveness Scale. The scale is a reliable and valid. It is important to include intercultural communication competence in nursing curriculum programs to ensure that students gain all these awareness, skills and behaviors.

1. Introduction

Culture is a fundamental element of intercultural relationships and contributes to its effectiveness. Events, thoughts etc. that an individual perceives as normal, natural in his or her culture can be perceived differently in other cultures, or convey different meanings, or are completely meaningless. For a successful intercultural communication, individuals should have a certain amount of cultural sensitivity accumulation. Provision of intercultural care includes cultural sensitivity (emotional dimension), cultural awareness (cognitive dimension) and cultural skill (behavioral dimension) (Wiseman, 2003) (Figure 1). Intercultural effectiveness is a part of behavioral aspect of intercultural competence. The aim of being sensitive to cultural differences is to provide the care specific to the culture effectively.

Cultural skill is the ability of a person to establish intercultural communication by using verbal and nonverbal communication skills while communicating with people from different cultures.

As a consequence of globalization, immigrations have increased in recent years not only due to increases in the global immigration rate but also due to immigrations caused by the wars in the Middle East. Many people immigrate to Turkey and to many other countries. Only in 2016, Turkey provided health, education and food assistance to 2,521,907 Syrian immigrants. Foreigners given residence permit in 2015 to stay in Turkey were mostly from Iraq (33,202 persons), Syria (32,578 persons), Azerbaijan (32,476 persons), Turkmenistan (22,891 persons) and the Russian Federation (22,377 persons). In addition to immigrants staying in

Turkey legally, a lot many illegal immigrants were caught. Their number increased by 150% in 2015 compared to 2014. What is more, in 2015, around 400,000 people applied to obtain residence permit to join their family, to work or to get education. All these figures show that for whatever reason there are people from different countries and cultures, and that these people will benefit from health services (Turkish Migration Statistics, 2016). At this point, in order for nurses to adequately provide cultural care for people from different cultures, the concepts of cultural sensitivity, cultural awareness and cultural skill come to the forefront.

The local, national and global migration brings about poverty and inequity in health. Individuals who are culturally different may not be able to benefit from health services adequately due to their inability to receive health care appropriate for their culture. In the provision of intercultural health care, nurses have an important place both today and in the future (Foronda, 2008). Because nurses serve people from different cultural and ethnic backgrounds, they should develop an understanding of culture and its relationship to illnesses and health. While nurses provide such care, they will encounter different types of communication, behaviors, beliefs and attitudes that may have a positive/negative impact on health care (Cicolini et al., 2015; Goodman et al., 2015). Good quality nursing care requires good communication, compassion, understanding and sympathy, empathy, and respect for others' opinions during the provision of the holistic care. If a nurse is to give a patient-centered care, he/she should take into account the factors related to the culture, beliefs, customs and values of the individual to receive the care as a whole. Thanks to skills nurses acquire through cultural care training, they will be
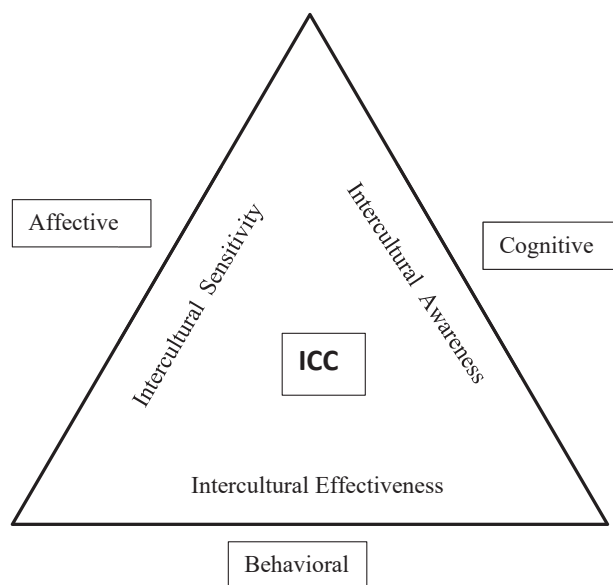

Figure 1. A model of intercultural communication competence.

aware that the values and behaviors of an individual are affected by his/her culture, and to provide effective care, they will evaluate the planning and implementation of the care in this context. In this way, they will be able to provide intercultural care with an approach recognizing the impact of cultural differences and similarities on health.

1.1. Concept of intercultural effectiveness

Intercultural effectiveness, as defined by Chen and Starosta, is the behavioral dimension of intercultural communication competence (Chen and Starosta, 2000). It specifically refers to the "person's ability to interact and adjust adroitly with other human beings" in an intercultural setting (Chen, 2009). According to Chen and Starosta, the intercultural effectiveness is achieved through the development of five components: message skills, interaction management, behavioral flexibility, identity management, and relationship cultivation (Chen and Starosta, 2000). An intercultural effective person is able to discriminate which verbal and nonverbal behaviors, communication styles are the most suitable in specific intercultural encounters. The intercultural effective person does display respect and acts under the set of rules, values, and assumptions that govern the host culture. Hence, intercultural effectiveness embraces the individual's "ability to maintain the face of one's culturally different counterparts" while interacting (Chen, 2009).

The intercultural effectiveness scale is a Five-Point Likert scale containing 20 items which specially measure the level of intercultural effectiveness. The instrument contains six factors (Portalla and Chen, 2010). The first one is the message skills (the ability to employ one's counterpart's verbal and non-verbal behavior), the second one is the interaction management (the ability to initiate, take turns and terminate a conversation), the third one is the behavioral flexibility (the ability to attend to various information and to use appropriate communication strategies), the fourth one is the identity management (the ability to maintain one's counterpart's personal and cultural identities) and the fifth one is the interaction relaxation (the ability to be less anxious in intercultural interactions, and interact with their culturally different counterparts) relationship cultivation (the ability to establish an interdependent and reciprocal relationship with one's counterpart) (Wiseman, 2003). The sixth one is the Interactant Respect (the ability to show respect to their culturally different interactant) (Chen and Young; 2012).

1.2. Purpose of the study

Turkish society is a heterogeneous and multicultural society due to Turkey's geographical and geopolitical position. Ethnic differences (Turko, Circassian, Kurds, Arabs etc.), religious differences (Sunni, Alawi/Qizilbash, Arabian, Kurdi, Shafi, Hanafi, Christian, Jewish etc.) and differences in place of residence (urban/rural) are among the causes of this heterogeneity. These cultural, religious and ethnic differences affect the provision of health services and benefiting from health care. In recent years, nurses in Turkey have had patients from different cultures and provided care for them. In the literature, studies are mostly on intercultural sensitivity and awareness. However, intercultural effectiveness has not yet been understood or studied adequately. Our search for studies investigating how nurses perceive cultural effectiveness demonstrated a gap in the literature. This present study was conducted to test the reliability and validity of the Turkish version of the Intercultural Effectiveness Scale.

2. Material and method

2.1. Design and sample

The population of this methodological study comprised 4th-grade students studying in the nursing departments of two state universities in Izmir. Non-probable sampling method was implemented in this present study. It was planned to include all the students in the study by means of the complete count method. A total of 165 students were used for the data collection. Of the students who participated in the study, 83.5% (n: 132) were female. The participants' mean age was 22.6 ± 1.25.

2.2. Instruments

Sociodemographic data were collected using the 'Student Information Form'. The Student Information Form consists of items questioning the participants' age, gender and the university where they were educated.

The "Intercultural Effectiveness Scale" was used to measure intercultural Effectiveness. Intercultural Effectiveness Scale: The scale developed by Portalla and Chen in 2010 measures cultural effectiveness (Portalla and Chen, 2010). The scale consisting of 20 items is a 5-point Likert-type scale (ranging from 1 = Strongly Disagree to 5 = Strongly Agree). The subscales and item numbers in each subscale are as follows: Behavioral Flexibility (items 2,4,14,18), Interaction Relaxation (items 1,3,11,13, 19), Interactant Respect (items 9,15,20) Message Skills (items 6,10,12), Identity Maintenance (items 8,16,17) and Interaction Management (items 5,7). Items 2, 4, 6, 8, 10, 12, 14, 16, and 18 are reverse-coded.

2.3. Data collection

The data were collected between February 1, 2016 and February 29, 2016 during the regular class meeting hours using the pencil-paper method. Participants completed the 20-item scale. The average time to complete the forms was about 8–10 min.

2.4. Ethical considerations

After the approval of the ethics committee was obtained (2016/9), permissions were obtained from the administrations of the relevant universities. The students were informed about the aim and scope of the study, were given the related instructions, and were told that participation was voluntary and that credentials would be kept confidential.

2.5. Data analysis

The study data were analyzed using the SPSS 22 (Statistical Package for Social Sciences). For the confirmatory factor analysis, the SPSS AMOS 22 was used. The data were loaded onto the computer by the researcher.

Internal consistency was assessed using the Cronbach's alpha, item-total correlation and test-retest analysis. An alpha value above 0.7 indicated that internal consistency was acceptable. Test-retest reliability was tested by Pearson correlations, and a correlation coefficient above 0.7 was considered generally good (Tavsancil, 2014).

The validity of the scale was assessed using two different factor analysis techniques. The Exploratory Factor Analysis was used to reveal the relationship between the variables. The principal component analysis and confirmatory factor analysis were used to assess construct validity. The principal component analysis was conducted using oblique rotation after the suitability of the data for the analyses was confirmed by Kaiser-Meyer Olkin Measure of .5–1.0 and Bartlett's Test of Sphericity with statistical significance (p < .05) (Sencan; 2005). Multiple goodness-of-fit measurement indices were used to determine a model fit for the confirmatory factor analysis, with the following criteria applied: CMIN/DF ratio (<3), Goodness-of-Fit Index (GFI >.90), Comparative Fit Index (CFI>.90), and the Root Mean Square Error of Approximation (RMSEA < .08). RMSEA values of .80–.10 indicate a reasonable fit (Cokluk et al., 2014). To explore variability of the scale, floor and ceiling effects were analyzed. A cut off score of >15% on the minimum or maximum scores for each item indicated the presence of floor and/or ceiling effects. The Confirmatory factor analysis (CFA) was performed using the Pearson correlation coefficients based on the maximum likelihood estimation method (Harrington; 2008).

In the test-retest method, the uninterrupted method was implemented (Hair et al., 2008). The test was administered to 34 students twice at 4-week intervals. The correlation coefficient between the two measurements was assessed with the inter-group correlation coefficient (ICC), and the limit value for the ICC was 0.70. The p value of 0.05 was considered statistically significant at 95% confidence interval.

3. Results

3.1. Validity

3.1.1. Content validity

In the language validity study of the scale, the scale was translated to Turkish by three experts and back translated English by two experts. Five experts were consulted to establish the content validity. For the content validity of the items, the Davis (1992) expert technique was applied. The experts were asked to evaluate the items as (a) appropriate, (b) needs minor revision (c) needs major revision and (d) appropriate. According to the technique, the number of experts who marked the option "a" and "b" was divided by the total number of experts and the content validity index of each item was obtained. The content validity index was 0.86 for all the items.

3.1.2. Construct validity

The Exploratory Factor Analysis (EFA) was performed to examine the construct validity of the scale. Before performing the factor analysis, to assess whether the sample was sufficient for the factor analysis, the Kaiser-Meyer-Olkin (KMO) and Bartlett' tests were applied. The Kaiser-Meyer-Olkin (KMO) value of the scale was 0.79. The p value of the Bartlett's test was 0.000 ($\chi^2 = 121.420$).

In the EFA analysis performed with the maximum likelihood method, three factors with an eigenvalue greater than 1.00 were identified. The first factor (total 7 items) had an eigenvalue of 4.59 and accounted for 30.60% of the variance. The second factor (total 4 items) had an eigenvalue of 1.57 and accounted for 10.48% of the variance. The third factor (total 4 items) had an eigenvalue of 1.27 and accounted for 8.49% of the variance. Thus, the three-factor structure accounted for 56.67% of the variance. The factor loads ranged from 0.419 to 0.996 (Table 1). After the factor loadings, item 18 included in the Behavioral Flexibility factor on the original scale was moved to the Interactant Respect factor. Items 6 and 8 in the Identity Maintenance subscale, and items 10 and 12 Message Skills were moved to the Behavioral Flexibility subscale. The Interaction Relaxation subscale included the items 1,3,11,13,19, the Interactant Respect subscale included items 9,15,20; Message Skills subscale

Table 1. Cultural adroitness scale's item loadings for exploratory factor analysis.

Factors	Factor Loadings[*,†]
Factor 1: Behavioral Flexibility- Message Skills- Identity Maintenance	
Item 2	,470
Item 4	,772
Item 8	,633
Item 10	,807
Item 12	,626
Item 14	,594
Item 16	,565
Eguienvalue	**4.59**
% of Variance	**30.60**
Factor 2: Interactant Respect	
Item 9	,419
Item 15	,833
Item 18	,620
Item 20	,842
Eguienvalue	**1.57**
% of Variance	**10.48**
Factor 3: Interaction Relaxation	
Item 1	,996
Item 3	,605
Item 11	,630
Item 13	,773
Eguienvalue	**1.27**
% of Variance	**8.49**
Total % of variance	**56.67**

[*] Extraction Method: Maximum Likelihood.
[†] Rotation Method: Oblimin with Kaiser Normalization.

included the items 6,10,12; Identity Maintenance subscale included the items 8,16,17 (Table 1).

In adapting the scale to Turkish, to confirm the fit of the factors, the CFA goodness of fit analysis was used. Fit values were 0.93 for the CFI, 0.90 for the GFI, 0.88 for the NFI, 0.04 for the SRMR and 0.053 for the RMSEA (p < 0.05). Goodness of fit values are given in Table 2. The Interaction Management subscale (items 5, 7) included on the original scale was removed from the model because the factor loads of the items (the standard regression coefficients ranged from 0.200 to 0.400) in the CFA were low. After the CFA, the scale had three sub-factors. In addition to the Interaction Management subscale, items (6,17,19) included on the original scale were also removed because their standard regression coefficients in the CFA were very low and thus reduced the goodness indices of the scale. The standard regression values for the other items in the CFA are as shown in Figure 2.

3.2. Reliability

3.2.1. Internal consistency analysis

While the original scale had 6 subscales and 20 items, the scale in the present study included 3 subscales and 15 items after the validity analysis (EFA and CFA). In testing the internal consistency reliability, the three factor internal consistency coefficient (Cronbach's alpha) was 0.79 for the Factor 1, 0.63 for the Factor 2, and 0.63 for the Factor 3. For the test-retest reliability of the scale, the data obtained from 34 people contacted for the second time demonstrated that the Cronbach's alpha was determined as 0.74. Item total correlations and Cronbach's alpha coefficients for each item were calculated using the item-elimination technique. Cronbach's Alpha coefficients ranged between 0.74 and 0.82. According to the results of the item and reliability analysis, the item-total correlations ranged from 0.321 to 0.600 and were significant at p = 0.001. The relationship between the scores of each subscale and

Table 2. Compatibility values of the scale.

Compatibility Values	Analysis
Chi-square/p-value	121.420/p = 0.005
CMIN/df	1.44
Degrees of freedom	84
RMSEA	0,053/p < 0,05
RMR	0,04
CFI (Comparative Fit Index)	0,933
GFI (Goodness of Fit Index)	0,909
AGFI (Adjusted Goodness of Fit Index)	0,870

the total scale score was examined, and the correlation coefficients were determined to range from 0.60 to 0.81 (p = .000). The mean score was the lowest for the item 18 (2.06 ± 0.70), and the highest for the item 15 (4.36 ± 0.68) (Table 3).

3.2.2. External consistency analysis

The scale was re-administered to 34 of the participants who were reached for the second time, at a two-week interval. Based on the responses, the mean scores obtained from the scale were compared. The comparison indicated that there was no statistically significant difference between the two applications (t = 1.717, sd = 33, p = .056). According to the Pearson correlation analysis performed in the present study, the re-test correlation value was r = 0.99 (p = 0.001).

The Hotelling's T^2 test was used to test whether the responses given by the participants to the questionnaire were equal. The results of the analysis showed that the mean values were different, that Hotelling's T^2 was 48.50, p = .0000, that the participants showed different approaches to answer the items and that the responses were reliable.

4. Discussion

The purpose of this exploratory study was to test the reliability and validity of the Turkish version of the Intercultural Effectiveness Scale. The literature review indicated that this study was the first study to test the validity of the scale in a language other than the original language. This scale was developed to measure intercultural effectiveness, which is the part of intercultural communication competence. The factor analysis showed a 15-item with three factors. This scale will help members of the health team to effectively communicate with individuals with different cultural characteristics, to distinguish and understand different behaviors, perceptions and thoughts.

In terms of language and content validity of the scale, opinions of five experts were obtained. According to the expert opinions, no item needed revision. The content validity index (CVI) was used for the evaluation of the expert opinions. The CVI value of 0.80 recommended in the literature is the criterion value (Zamanzadeh et al., 2015). In the present study, the CVI value was 0.86, which was considered to adequately represent the property of the item measured.
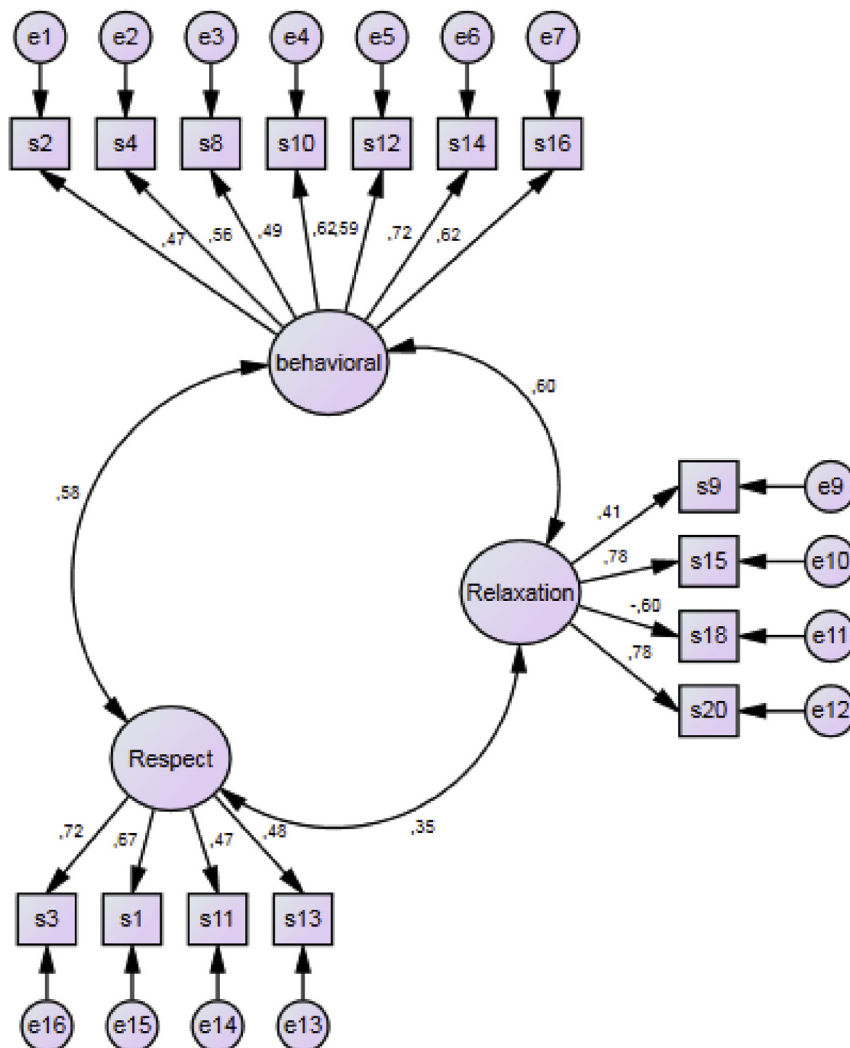
Figure 2. Confirmatory factor analysis of IES.

Table 3. Factor loadings, item-total mean scores and correlation coefficients of items.

Item number	Mean	SD	Corrected Item-Total Correlation Coefficients		Cronbach's α
			r	p	
1	3,58	,831	,424	,001	,76
2	3,65	,894	,435	,001	,76
3	3,37	,855	,455	,001	,76
4	3,82	,987	,454	,001	,76
8	3,39	,865	,430	,001	,76
9	4,03	,805	,321	,001	,77
10	3,37	,801	,504	,001	,75
11	3,34	,789	,364	,001	,76
12	3,43	,862	,498	,001	,75
13	3,47	,762	,333	,001	,77
14	3,79	,93590	,600	,001	,74
15	**4,36**	,680	,429	,001	,76
16	3,39	,963	,540	,001	,75
18	**2,06**	,701	,494	,001	,82
20	4,32	,784	,381	,001	,76

In validity studies, KMO value for the adequate sample size is expected to be greater than 0.80 and close to 1. In the present study, the sample size was considered good for the factor analysis (KMO value) (Hair et al., 2008). The confirmatory factor analysis results also show that the chi-square value and other goodness of fit statistical values were at an acceptable and good level.

In the EFA analysis, the three-factor structure with an eigenvalue greater than 1 accounted for 56.67% of the variance. As is shown in Table 1, factor loads ranged from 0.419 to 0.996. In the validity studies, the higher the variance rate obtained from the EFA (which should be 50% and above) is the stronger the factor structure of the scale is. That the variance rate in the present study was 50% or more indicates that the factor structure of the scale was strong. After factor loading, the Identity Maintenance, Message Skills and Behavioral Flexibility subscales that existed as different subscales on the original scale were combined to form a single subscale. Item 18 which is in the Behavioral Flexibility subscale in the original scale was placed in the Interactant Respect subscale. The Interaction Management subscale (items 5,7) included on the original scale was removed from the model because the factor loads in the CFA (standard regression coefficients were between 0.200 and 0.400) were low. In addition, three items (items 6,17,19) included on the original scale were removed because their standard regression coefficients were too low in the CFA and thus reduced the goodness indices. All the other items were included in the sub-factors as in the original scale. Based on the results of the CFA analysis 5 items with a factor load of less than 0.30 were not included in the model. The original 6-subscale and 20-item scale was reduced to 3-subscale and 15-item scale after the EFA and CFA. Reliability indicates the repeatability of the measurement process, and the consistency of the repetitions. The reliability that affects the validity of a test is a measure of the stability of a test over time (Sencan; 2005; Tavsancil; 2014). The Cronbach's alpha coefficient of the scale ranges between 0.80 and 1.00 in the literature, which indicates that it is highly reliable (Ozdamar 2004; Tavsancil; 2014). In the present study, the Cronbach alpha reliability coefficient of the 15-item and 3-factor scale were 0.79 (test-retest reliability 0.74), which suggests that the scale had enough internal consistency. The reliability coefficient of the scale was 0.85 in the study of Chen and Starosta (2000) too. The fact that the two values are close to each other indicates that the scale translated into a different language is a valid scale.

The test-retest reliability indicates the consistency of a measurement tool between applications (stability over time) (Sencan, 2005). The test-retest correlation coefficient in the present study was very adequate (r = 0.99). The Hotelling's T^2 test was used to test whether the responses the participants gave to the questionnaire were equal. The participants showed different approaches to answer the items and their responses were reliable. The stability of the scale over time was strong (Tavsancil; 2014).

4.1. Limitations

Some limitations may provide opportunities for further studies according to results of this research in the future. The data source of the study related to socio-demographic characteristics is limited to the items in the Student Information Form. Since all of the study data obtained were based on the students' responses, it should be taken into account that the students might have given biased information, which can be considered as another limitation of the study. There are very few studies about this scale and intercultural effectiveness in different sampling such as medical students (Nameni and Dowlatabadi, 2019), students of in a public university (Tamam and Krauss, 2017), university students from USA and Germany (Fritz et al., 2005). The small sample size is a limitation of the work, and that the results can only be taken as a first approximation. For this reason, it is recommended that the scale should be tested in larger sample in future studies. It is also recommended to test with sample of clinician nurses.

5. Conclusion

Accurate measurement techniques will guide health professionals in the diagnosis of intercultural effectiveness. Our findings showed some evidence of good psychometric properties of this scale. Therefore, the results show that the scale is a suitable tool for other studies in which the intercultural effectiveness of individuals is to be determined. Thus, health personnel dealing with patients from different languages, religions, races, ethnic origins can develop and maintain good interpersonal relationships. Good quality nursing care requires good communication, compassion, understanding and sympathy, empathy, and respect for others' opinions during the provision of the holistic care. It is important to include intercultural communication competence in nursing curriculum programs to ensure that students gain all these awareness, skills and behaviors.

Declarations

Author contribution statement

M. Yilmaz: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

H. Sari and S. Dağhan: Conceived and designed the experiments; Performed the experiments; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Competing interest statement

The authors declare no conflict of interest.

Additional information

No additional information is available for this paper.

References

Cicolini, G., Della Pelle, C., Comparcini, D., Tomietto, M., Cerratti, F., Schim, S.M., et al., 2015. Cultural competence among Italian nurses: a multicentric survey. J. Nurs. Scholarsh. 47 (6), 536–543.

Chen, G.M., 2009. Intercultural communication competence. In: Littlejohn, S., Foss, K. (Eds.), Encyclopedia of Communication Theory. Sage, Thousand Oaks, CA, pp. 529–532.

Chen, G.M., Starosta, W.J., 2000. The development and validation of the intercultural sensitivity scale. In: The Annual Meeting of the National Communication. (86th, Seattle, WA, November 8-12).

Chen, G.M., Young, P., 2012. Intercultural communication competence. In: Goodboy, A., Shultz, K. (Eds.), Introduction to Communication: Translating Scholarship into Meaningful Practice. Kendall-Hunt, Dubuque, IA, pp. 175–188.

Cokluk, Ö., Şekercioğlu, G., Buyukozturk, G., 2014. Multivariate Analysis : SPSS and LSIREL Applications. Pegem Academia.

Davis, L.L., 1992. Instrument review: getting the most from A panel of experts. Appl. Nurs. Res. 5, 194–197.

Fritz, W., Graf, A., Hentze, J., Möllenberg, A., Chen, G.M., 2005. An Examination of Chen and Starosta's Model of Intercultural Sensitivity in Germany and United States.

Foronda, C.L., 2008. A Concept Analysis of cultural sensitivity. J. Transcult. Nurs. 19 (3), 207–212.

Goodman, P., Edge, B., Agazio, J., Prue-Owens, K., 2015. Cultural awareness nursing care of Iraqi patients. J. Transcult. Nurs. 26 (4), 395–401.

Hair, J.R., Black, W.C., Babin, B.J., Anderson, R.E., 2008. Multivariate Data Analysis, 7 th ed. Pearson/Prentice Hall, Upper Saddle River, NJ.

Harrington, D., 2008. Confirmatory Factor Analysis. Oxford University Press.

Nameni, A., Dowlatabadi, H., 2019. A study of the level of intercultural communicative competence and intercultural sensitivity of Iranian medical students based on ethnicity. J. Intercult. Commun. Res. 48 (1), 21–34.

Ozdamar, K., 2004. Statistical Data Analysis with Package Programs. Kaan Press.

Portalla, T., Chen, Guo-Ming, 2010. The development and validation of the intercultural effectiveness scale. Intercult. Commun. Stud. XIX, 3. Retrieved from: https://digitalcommons.uri.edu/com_facpubs/17/.

Sencan, H., 2005. Reliability and Validity in Social and Behavioral Measurements. Seçkin Press.

Tamam, E., Krauss, S.E., 2017. Ethnic-related diversity engagement differences in intercultural sensitivity among Malaysian undergraduate students. Int. J. Adolesc. Youth 22 (2), 137–150.

Tavsancil, E., 2014. Tutumların Ölçülmesi Ve SPSS Ile Veri Analizi. Nobel Press.

Turkish Migration Statistics, 2016. http://www.tuik.gov.tr/VeriBilgi.do;jsessionid=CvJpYY9XJvYq2JTJpq1n4WzffSQjf5cHwyXgrwssytTB12x0MtyV!169037981?alt_id=1067.

Wiseman, R.L., 2003. Intercultural communication competence. In: Gudykunst, W.B. (Ed.), Cross-cultural and Intercultural Communication. Sage, Thousand Oaks, CA, pp. 191–208.

Zamanzadeh, V., Rassouli, M., Abbaszadeh, A., Majd, H.A., Nikanfar, A., Ghahramanian, 2015. Details of content validity and objectifying it in instrument development. Nurs. Pract. Today 1 (3), 163–171. Retrieved from: http://npt.tums.ac.ir/index.php/npt/article/view/24.