

Original Article

Investigation of Cultural Competence in Greek Nursing Students

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Abstract

Introduction: Intercultural knowledge and cultural skills refer to the acquisition and formation of cultural awareness through education, so that nursing students are more adequately prepared to meet a diverse clientele.

Aim: This study aimed at investigating the level of cultural awareness of nursing students.

Method: The sample consisted of 120 nursing of second- and third-year students. This is a synchronous correlation study and data were collected via face to face interviews using the Clinical Culture Competence Questionnaire for the exploration of their cultural capacity. The statistical package SPSS 23.0 was used for data analysis, applying the methods of Descriptive and Inductive Statistics.

Results: Gender differences were evident with male students displaying higher scores than women ($p=0.001$). The educational level is also statistically related to Knowledge ($p=0.018$) and Skills ($p=0.023$). A significant positive correlation arises between the range of knowledge and skills which suggests that increasing the level of knowledge of students entails an increase in their skills and vice versa ($p=0.000$).

Discussion: Our study has shown that gender affects students' level of knowledge on intercultural care as male students displayed higher scores than females ($p=0.001$). This finding contrasts with the results of other studies where the level of cultural competence in nursing students has shown that while older students (>30 years) knew more about the appropriate cultural management of patients, females were more sensitive and capable of managing intercultural concepts than male students. The results of this study also showed that social interactions with people of different cultural backgrounds were found to be related to greater knowledge and skill capabilities.

Conclusions: From this research it is clear that, in order to improve the cultural knowledge and skills of students, nursing education should provide appropriate scientific continuing education as well as opportunities for students to interact with different cultures.

Keywords: Nursing Students, Cultural Knowledge, Cultural Skills

Introduction

Cultural differences are defined as differences in color, gender, race, country of origin, nationality, socioeconomic status, education, employment, religion, and other relevant characteristics of different population groups (Pulido-Fuentes et al, 2017; Alizadeh & Chavan, 2016). Cultural sensitivity and knowledge are two of the factors that usually determine a nurse's ability to respond effectively to cultural diversity (Hadziabdic et al, 2016).

Cultural knowledge refers to nursing education and the acquisition of a nursing practice skill basis, in relation to the cultural groups that nurses will come into contact with, in order to better understand their differing value systems, their different beliefs and attitudes (Cai, 2016). In addition to the practical value of cultural knowledge (in terms of differentiating the treatment by nurses on a case-by-case basis), with diversity being respected, cultural awareness has further practical implications for nursing practice (Xu et al, 2016). Thus, cultural awareness is also associated with recognizing the different incidences of specific diseases, such as diabetes mellitus and cardiovascular diseases, or even with the related differing eating habits (Loftin et al, 2013). Intercultural knowledge, therefore, is essential in order to identify and address the specific needs of each cultural group or individual. In addition, it should be noted that cultural knowledge is not acquired at any particular time as a one-off capacity, but it is a dynamic and perpetual process (Kaihlanen et al, 2019).

The need to teach cultural skills in nursing education has been recognized internationally. Guidelines on the application of cultural content to nursing curricula have been established in the United States (American Organization of Nurse Executives, 2015) and in Europe (Sairanen et al, 2013). However, recent research shows that besides significant improvements in contemporary teaching strategies the implementation of cultural content in nursing curricula is minimal (Bohman & Borglin, 2014; Esposito, 2013;

Baernholdt et al, 2013). Cultural competence can be taught in many ways in nursing education which includes studying abroad as an exchange student, clinical practice abroad and international study visits (Balasubramaniam et al, 2018, Chen et al, 2012, Suk et al, 2018).

Aim

The purpose of this study is to investigate the level of cultural knowledge and skills of students in the Department of Nursing, University of Thessaly, (formerly T.E.I. of Thessaly).

Materials and Methods

The target population of the survey was a total of 120 nursing students. The criteria for inclusion in the study were being active undergraduate students in their second or third year of study. A random sample was selected out of 320 active students. The survey was conducted in December –January, 2018-2019.

The Clinical Culture Competence Questionnaire (CCC-Q) research tool was used for data collection. This questionnaire has been validated and tested already in the Greek population (Apostolara et al, 2016), and consists of 41 questions which cover the following 4 topics: a) Demographic characteristics, b) Knowledge, c) Skills and d) Education and training.

Furthermore, the CCCQ has three distinct sections which include the following:

- a) **Demographic data**, consisting of 13 closed and open questions concerning demographic, professional and educational characteristics.
- b) **Knowledge** consisting of 10 close-ended questions concerning interaction with people of different cultural origins.
- c) **Skills** consisting of 15 close questions.
- d) **Education and Training** consists of 3 questions, two using a five-point Likert scale and a final question being open-ended, for further comments, suggestions and other relevant input.

SPSS v.23.0 for Windows was used for statistical analysis by employing both descriptive and inductive statistics. Descriptive analysis included the frequency distribution of the qualitative variables (absolute and relative % frequencies) and estimates of the position and dispersion parameters of the quantitative variables (mean value, median value, and standard deviation, minimum and maximum value). Possible associations between variables were explored via Inductive analysis, which included the Spearman's alpha, Mann-Whitney and Kruskal-Wallis non-parametric tests. As the data did not follow a normal distribution, non-parametric analysis of the sample was followed using Kolmogorov-Smirnov test. Significance level was set at $p < 0,05$.

Ethical Considerations: The study was conducted according to the Helsinki Declaration for medical research involving human subjects. .

Results

The mean age of the sample was 21.5 years (± 3.1). The majority (63%) were women and 37% men with 90% of participants single, 2.5% married, 1% widowed and 6.5% gave no answer. The great majority of the study sample (93%) was of Greek nationality, with 91% having mastered a foreign language, mainly English, French or Italian. 13% of the students had lived outside Greece for an average of 4.2 years (± 3.688). About a quarter of the sample (27%) had attended intercultural health seminars and 76% had social interactions with people of different cultural origins.

The correlation coefficient Cronbach's Alpha was calculated for all scales of Cultural Ability in the whole sample (table 1). As known, with Cronbach's Alpha, a value of $\alpha > 0.7$ indicates that the scale reliability is acceptable. The correlation coefficient for the 10 questions related to the Knowledge part was found to be $\alpha = 0.91$. For the 15 questions concerning Intercultural Skills, the corresponding reliability index was also high, i.e. $\alpha = 0.96$. Finally, for the few questions concerning Education and Training the reliability index

was lower, at $\alpha = 0.62$. Yet, the overall value of the Greek version of the CCC-Q for this study was $\alpha = 0.95$. The overall total score of CCC-Q ranged from 29 to 117 and for the individual Scales from 10 to 42 for Knowledge, 15 to 66 for Skills and from 4 to 17 for Education and Training. The mean score of the students participating was 84 (± 23), for the Knowledge scale of 29 (± 9), for the Skill questions the mean score was 44 (± 14) and for the Education and Training subscale the mean value was 10 (± 3).

As shown in table 2, the Kolmogorov - Smirnov test for the Knowledge, Skills and Education/Training subscales does not follow the normal distribution ($p = 0,000$), thus, non-parametric tests were employed to assess the correlations performed in the following inductive analysis.

Table 3 shows the correlation between students' demographic characteristics and knowledge factors - skills as follows: Gender affects students' level of knowledge of intercultural care as male students display higher scores than female ($p = 0.001$). The educational level appears to affect the level of Knowledge and the level of Skills of students as older students showed higher scores ($p = 0.01$, $p = 0.02$ accordingly). The attendance of intercultural health seminars affects the level of Knowledge and the level of Skills of students, indicating that those who have attended relevant seminars gained higher scores than those who abstained ($p = 0.0$, $p = 0.0$ respectively). Social interactions with people of different cultural backgrounds affected the sample's levels of Knowledge and Skills with such interactions displaying higher scores ($p = 0.001$, $p = 0.002$ respectively).

As shown on table 4 below, and considering the correlation between the factors of cultural knowledge and skills, a statistically significant positive correlation was established between the range of knowledge and skills. This suggests that an increase in the levels of knowledge of students entails an increase in their skills and vice versa ($p = 0.000$).

Table 1: Correlation coefficient (Cronbach's Alpha) for all sub-scales

Sub-scales	<i>min</i>	<i>max</i>	<i>Mean</i>	<i>SD</i>	<i>Cronbach's α</i>
Knowledge(10 questions)	10	42	28.90	9.07	0,91
Skills (15 questions)	15	66	44.18	14.55	0.96
Education & Training (4 questions)	4	17	9.70	3.17	0.62
Total	29	117	83.63	22.94	0.95

Table 2: Sub-scales' normality distribution

	Kolmogorov-Smirnov*			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Knowledge	0.154	100	0.000	0.925	100	0.000
Skills	0.159	100	0.000	0.926	100	0.000

* Lilliefors Significance Correction

Table 3: Correlations of demographic data with Knowledge-Skills sub-scales

Subscales		Knowledge	Skills
Gender	Male (N=40)	33	47
	Female (N=70)	25.5	40.5
	U*	889.000	1056.000
	p value	0.001	0.079
Educational level	Younger students	24	37
	Older students	30	46
	H**	7.990	7.577
	p value	0.018	0.023
Foreign languages	Yes (n=101)	29	44.5
	No (n=9)	25	35
	U*	336.500	343.000
	p value	0.196	0.268
Intercultural health seminars	Yes (n=31)	42	64
	No (n=79)	25	39

	U*	297.000	197.500
	p value	0.000	0.000
Social Interaction with people of different cultural background	Yes (n=86)	30	46
	No (n=24)	22	37
	U*	568.000	527.500
	p value	0.001	0.002

*Mann-Whitney U test, **Kruskal-Wallis test

Table 4: Correlations of demographic data with Knowledge-Skills sub-scales

		<i>Knowledge</i>	<i>Skills</i>
Knowledge	Rho	1.000	.831**
	P	.	.000
Skills	Rho		1.000
	P		.

*Mann-Whitney U test, **Kruskal-Wallis test

Discussion

There has been very little research on cultural awareness for nurses in Greece. Yet, international research suggests that cultural knowledge and skills affect the way a nursing student interacts with patients and provides care (Athasopoulou & Christodoulou, 2011). Our study has shown that gender affects students' level of knowledge on intercultural care as male students displayed higher scores than females ($p=0.001$). This finding contrasts with the results of Liu et al (2018), who studied the level of cultural competence in nursing students and argued that while older students (>30 years) knew more about the appropriate cultural management of patients, females were more sensitive and capable of managing intercultural concepts than male students

The results of this study also showed that social interactions with people of different cultural backgrounds were found to be related to greater knowledge and skill capabilities. This finding is in line with research by Repo et al (2017), who stated that while the level of

cultural competence was modest in students studying cultural care the frequency of their interaction with different cultures was positively linked to higher cultural capacity. Furthermore, a study by Meydanlioglu et al (2015), assessing the factors affecting the cultural sensitivity of medical and nursing students who had been communicating with people from foreign cultures found that those speaking foreign languages were more culturally aware.

Another study by Penbek et al (2012), found that students who received education at two different universities had higher levels of cultural sensitivity. Overall, there seems to be a close link between student mobility (such as the Erasmus programmed in Europe and beyond) and the development of their intercultural skills. Along these lines, Adamson (2018) and Gower et al (2018), argued that this relationship is positive and that an international practice within a short-term student mobility program can result in an enhanced intercultural experience and provide a unique opportunity to develop intercultural competences.

The educational level for this sample appears to affect the level of knowledge and skill levels of these students. One argument based on this outcome is that these students had been in contact with a diverse mix of patients (i.e. taking care of patients from different cultures during their clinical placements) and that they had been somewhat prepared by their school for intercultural care through seminars. These findings indicate that a culturally competent person is able to recognize, accept and appreciate the cultural differences of others. That is, such a person has the knowledge and ability to assess value and recognize similarities and differences within and between culturally different groups (Dauvrin & Lorant, 2015; Racine & Lu, 2015). This ability is an attribute that should be formally fostered amongst nurses in our contemporary international, globally interrelated world.

Along these lines, a group of nurse students from the US visiting Greece, had the opportunity to apply Leininger's Theory of Culture Care in another culture. According to Larson (2014), their understanding of culturally competent and compassionate care was positively enhanced. As our findings have showed, an increase in the levels of knowledge of students entailed an increase in their skills and vice versa. Thus, the importance of this acquisition is supported by Larson (2014), who stated that her sample students were *"changed" in Greece – not an easy phenomena to define, but a 'heart change' that opened their eyes to the world around them and their place in "the global community"*.

Smith (2017), describes how nursing students can apply cultural competence strategies in the classroom and in clinical settings. With relevance to ancient Greek, a well-known adage dictates 'Know thyself'. Therefore, as this study suggests, the first step towards cultural competence is for students to evaluate their own deeply held beliefs, traditions, stereotypes, biases, prejudices, mistaken beliefs, assumptions and their present abilities.

Study limitations: Despite the potential contribution of this study to the theory and practice of culturally competent nursing care, a

number of limitations and weaknesses are recorded. A small and localized sample always carries the risk of the inability to generalize results to a wider national or global audience. Moreover, there is always the risk of information bias as the data collection tool in our study relied on self-reporting. Consequently, under these circumstances, the authors cannot be entirely sure regarding the sincerity of responses to particularly sensitive issues, as for example the issue of fully commitment to delivering culturally sensitive care (Roberts et al, 2007).

Conclusions

Intercultural nursing and intercultural training of nurses are essential in contemporary Greek and European clinical practice. Nursing courses should form the basis for the development of cultural competences enabling corresponding knowledge and skills to be acquired.

This study endorses that students who partake to international exchange programs (known also as student mobility programs) are more culturally aware and in return their intercultural capabilities are enhanced. This is particularly important within our multicultural European Union, the current global workflow of nursing personnel and under the light of the recent Covid-19 pandemic.

In addition, when students explore various cultural concepts, they are encouraged to be committed to a wider set of moral values while developing an assessment of various cultural needs. As intercultural knowledge and skills can be acquired through multiple teaching strategies, including direct learning and experiential exposure, students can improve their care skills toolbox and support people of different cultural backgrounds, even in the face of language barriers.

Overall, intercultural nursing education can contribute to increasing the perceived cultural self-esteem of nurses, which can enhance cultural assessment capabilities and superior culturally appropriate care delivery.

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