Original Article

A Cross-Sectional Study Examining Nursing Students' Cultural Competence in Finland

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Abstract
Introduction: The number of immigrants has increased in Europe in recent years. The findings on discrimination emphasise the importance of assessing and increasing the level of cultural competence in health care. The cultural competence of healthcare personnel has been found to increase patient satisfaction and better treatment results.
Aim: The objective of the study was to investigate the level of cultural competence of nursing students and the associated factors to their cultural competence.
Methods: Study design was a cross-sectional study. The study was conducted in a university of applied sciences in Finland. Undergraduate nursing students (N=171) participated in the study. The instrument of Cross-Cultural Competence of Healthcare Professionals (CCCHP) was used for data collection. Statistical data analysis was conducted using the R and IBM SPSS Statistics for Windows.
Results: The level of cross-cultural competence of Finnish nursing students was good. Personal experience on immigration through a family member had a positive association on cross-cultural motivation and attitudes. The lack of experience of immigration had a negative association on cross-cultural motivation, attitudes, and empathy. Some students had negative views on culturally sensitive care and caring patients from culturally diverse backgrounds.
Conclusion*:* Integrating interactions with those from culturally diverse backgrounds into cultural competence education and overall, the whole nursing education would be beneficial. Internships abroad would also make it possible to learn about meeting cultures in a versatile way. There is a need to include in nursing curricula the Transcultural nursing course with a special attention on promoting cultural competence that is anti-racist.

Keywords: Cultural competence, Nursing students, Education, Racism

Introduction

On January 2024, 44.7 million persons born outside the EU were residing in an EU country, representing 9.9% of the EU population. This represents an increase of 2.3 million compared with the previous year. (Eurostat 2025.) The number of immigrants has increased also in the Nordic countries. In Finland, 495,992 people, constituting 9% of the entire population, were permanent residents with a foreign native language in 2022. The number has doubled in 11 years. The largest groups of foreign language speakers were Russians, Estonians, and Arabic speakers. These statistics do not include Ukrainians who received a residence permit under the temporary protection directive. (Statistics, 2022.) Over 50,000 Ukrainians have sought temporary protection in Finland following the start of the Russian attack on

February 24, 2022 (Finnish Immigration Services, 2024).

European residents have the most negative attitudes globally towards immigration, with the majority believing immigration levels should be decreased (International Organization for Migration 2015). Attitudes towards migration have hardened especially in the past years. Younger people and people with university degrees tend to express more positive attitudes towards immigration than older people and people with lower levels of education. (Migration Observatory, 2025.) According to European Social Survey, Hungary (86%), Slovakia (71%), Austria (52%), Finland (42%), Croatia (40%) and Lithuania (40%) had the most negative attitudes towards immigration in Europe (European Social Survey, 2023).

According to recent European prevalence of perceived racist harassment with people of African descent, Finland had the highest levels of all the European countries who participated in the study. Close to one in three respondents (30 %) indicated that they experienced racist harassment, with a great degree of variation between EU Member States, ranging from 20 % in Malta to 63 % in Finland. (European Union Agency for Fundamental Rights, 2018.) Nationwide study also revealed that experiences of discrimination are particularly common among the immigrant population, as 43 % had experienced discrimination during the previous 12 months (Kuusio et al., 2023). Recent scoping review identified the manifestation of racism in several dimensions against racialized migrants in healthcare in Europe (Pattillo et al. 2023).

Compared to the majority of the population, the immigrants have felt that the availability of medical services is more inadequate. They also report suffering from psychological stress more often than most of the population. Immigrants participate in health checks and especially cancer screenings less frequently than most of the population. Mental health and rehabilitation services are also not used enough. (Koponen et al. 2016.) Foreign-born population is slightly more dissatisfied with all aspects of the access to health care as compared to the majority of the population. In all aspects of access, migrants from the Middle East and Africa were least likely to be satisfied. (Kieseppä et al., 2022.)

Cultural competency is a recognized approach to improving the provision of health care to racial minority groups with the aim of reducing health disparities. There is evidence that interventions to improve cultural competency can improve patient health outcomes. (Bernhard et al., 2015; Shirai et al., 2024; Truong, Paradies & Priest, 2014.) Training and development of the health care professionals is a principal strategy towards the goal of improved cultural competence (Jongen et al., 2018).

Cultural competence is an ongoing process in which the healthcare professional continuously strives to achieve the ability and availability to work effectively within the cultural context of the client (Campinha-Bacote, 2003). Culture refers to learned or transferred values, beliefs and practices that guide thinking, decisions, and actions (Leininger, 1991). More cooperation between nursing teachers and the university administration is necessary to ensure the inclusion of cultural competence in nursing education. The curriculum should include a course about cultural competence with clear learning objectives. (Paric et al., 2021.) Being cross-culturally competent means keeping an open mind, to identify one's biases and to learn how to overcome those (Abdulrehman 2024). There is a need for antiracism education at personal and policy levels beginning in nursing programs (Hantke et al., 2022).

Several measures of cultural competence of nurses and students have been developed in nursing (Campinha-Bacote, 2003, Papadopoulos, Tilki & Taylor, 2004) and in health care general (Bernhard, 2015, Lin et al., 2017). Dimensions of cultural competence vary in different instruments. The attitude–knowledge–skill dimensions model of cultural competence was the most frequently used. (Lin et al., 2017.) The compatibility of the scale with the culture and environmental conditions of the studied population, and the areas of cultural competence it investigates, should be considered when using them (Yadollahi et al., 2020). Only few of these instruments have been sufficiently evaluated empirically and most of them have been developed in the United States for a specific group of healthcare professionals or on specific healthcare field (Hietapakka et al., 2019). The level of cultural competence has been found to require a lot of development for both nursing students and already graduated nurses (Antón-Solanas et al., 2021, Berse et al., 2024, Berhanu et al., 2024, Cai et al., 2021, Jaworski et al., 2024, Licen et al., 2021, Mula et

al., 2023, Zalewska-Puchała et al., 2021). The level of cultural competence can be improved by transcultural nursing education (Bae & Jeong 2023, Tosun et al., 2024).

Papadopoulos et al., (2004) have developed their cultural competence education based on their own theoretical framework. Their model of cultural competence is built on cultural awareness, cultural knowledge, cultural sensitivity, and cultural competence. In the first stage of cultural awareness, one's own personal values and beliefs are clarified. The next step, cultural knowledge can be achieved in many ways. Meaningful meetings with people from other cultures can increase our knowledge of health beliefs, practices and increase understanding of problem areas. Cultural awareness can be taught in several different disciplines. The third stage of cultural sensitivity concentrates on how the professionals experience their clients in care. The interaction between cultures should be taught from a transcultural perspective, not from Western starting points. Achieving the fourth stage of cultural competence requires the synthesis of the previous stages and the application of awareness, knowledge, and sensitivity. The focus should be on practical skills such as needs assessment, clinical diagnosis, and other nursing skills. One principal factor at this stage is the ability to recognize racism and to intervene in discriminatory and oppressive practices. (Papadopoulos et al., 2004.)

Research on racism in healthcare shows that racism operates in various dimensions between health care personnel and users and affects treatment and diagnosis. Racialized minorities experience inadequate healthcare. (Hamed et al., 2022.) Experiences of racism are associated with lack of trust and delay in seeking healthcare. For example, 10.4% of Russians had experienced discrimination in Finnish health care services while living in Finland. Experiences of discrimination or unfairness were associated with higher probability or seeking cross-border health care. (Kemppainen et al., 2018.) Racialized minority healthcare staff experience racism in their workplace from healthcare users and colleagues. The attitudes and beliefs of healthcare personnel demonstrate a range of negative stereotypes regarding racialized minority healthcare users who are viewed as difficult. (Hamed et al., 2022.) The findings on discrimination emphasise the importance of increasing the level of cultural competence in health care (Kemppainen et al., 2018).

Training that increases healthcare professionals' awareness of their own cultural features has been perceived as useful and thought-provoking. Increased awareness might facilitate the communication between healthcare professionals and patients, which is a crucial component of quality healthcare. (Kaihlanen et al., 2019.) Many studies related to cultural competency or diversity and inclusion education and training within healthcare have recommended using multiple educational strategies to develop knowledge, awareness, attitudes, and skills (Brottman et al., 2020, Cerveny et al., 2022). The recognition of the organizational nature of racism warrants nursing leaders and managers to include racism as a social determinant of health in the undergraduate and graduate curricula to educate the next generation of nursing about racism (Odzakovic et al., 2023).

Methods

Research Design: The research design of the study was a cross-sectional online questionnaire survey. The study was conducted in a university of applied sciences in Finland. Undergraduate nursing students from first to fourth year (n=171) participated in the study. The total sample was used, response rate was 15.2%. The aim of the study was to investigate the level of cultural competence of nursing students and the factors associated to it. The research questions were as follows: 1.) what is the level of cultural competence of nursing students and 2.) which background factors are associated to the cultural competence of nursing students?

Data Collection: The instrument of Cross-Cultural Competence of Healthcare Professionals (CCCHP) was used for data collection along with the background questions. The CCCHP instrument was developed by Bernhard et al., (2015). The conceptual model and initial item pool, which were applied to the cross-cultural competence instrument for the healthcare profession (CCCHP), were derived from an expert survey, interviews with HCPs, i.e. the healthcare professionals and a broad narrative review on assessment instruments and conceptual models of cultural competence. The CCCHP instrument showed good content and construct validity and reasonable reliability. The internal consistency of the total instrument reliability was .87 and Cronbach´s Alpha dimensions ranged from .54 to

.84. The 32-item (CCCHP 27 plus 5-item SD subscale) CCCHP exhibits acceptable psychometric properties, particularly content and construct validity to examine the cultural competence of HCPs (Bernhard et al., 2015). Japanese study confirmed the validity and reliability of the modified Japanese version of the CCCHP (four-factor model with 24 items) by moving three variables, removing the knowledge factor, and using the error covariance of the variables. (Shirai et al., 2024). Revised Finnish version (without knowledge/awareness dimension with four items) of the CCCHP has also proven a useful tool for studies focusing on the healthcare personnel's cross-cultural competence in delivering effective and culturally sensitive healthcare services for patients from diverse cultures. (Hietapakka et al., 2019). In this study we used the version of CCCHP instrument with 27 items. The scale contains following dimensions: Cross-Cultural Motivation/Curiosity (nine items), Cross-Cultural Attitudes (four items), Cross-Cultural Skills (five items), Cross-Cultural Knowledge/Awareness (four items) and Cross-Cultural Emotions/Empathy (five items). Response format was a 5-point Likert Scale (from strongly disagree to strongly agree). The CCCHP tool was already translated from English to Finnish language by a professional translator, and then back translated to English by a native speaker translator proficient in both English and Finnish (Hietapakka et al., 2019). The tool was provided for the researchers by the Finnish Institute for Health and Welfare. The background questions were age, the stage of studies, studies on transcultural nursing, work experience in nursing, experience on immigrant patients, personal experience on immigration or immigrants.

Data collection took place in October 2022. The e-questionnaire was delivered using Webropol. The total sample was used. The link to the questionnaire was send by e-mail to all nursing students (N=1123) at one university of applied sciences along with the cover letter. The secretary of the university of applied sciences sent a questionnaire link with a cover letter to the students using distribution lists. A reminder survey was sent in after a week, which got little more respondents.

Data analysis: Data analysis was conducted using IBM SPSS Statistics for Windows, Version 29 and with R. We used descriptive statistics to present the demographics of the participants (table 1) and the level of cultural competence (frequencies, percentages, means and standard deviations). The inverse variables have been taken into account in the analysis. Regression analysis was used to explore the association of CCC, i.e. cross-cultural competence with different demographics. Before conducting Confirmatory factor analysis (CFA) or regressions, data with missing values were imputed using predictive mean matching multiple imputation with five imputations and 50 iterations. The average missing data was 5.3%, with a variable variation of 2.3-21.1%. Questions 10.5 (18.1%) and 10.6. (21.1%) had the most missing answers. The convergence of imputation chains was inspected visually.

Before conducting Confirmatory factor analysis (CFA) or regressions, data with missing values were imputed using predictive mean matching multiple imputation with five imputations and 50 iterations. The convergence of imputation chains was inspected visually. Confirmatory factor analysis was conducted to extract factor scores for the five latent factors. The results of CFA were inspected with Cronbach's alpha and average correlation between items and factor. If average correlation was low and leaving one or more items from the factor equation would increase alpha and average correlation, then the model was updated by leaving that or those items away from the factor equation. CFA models were evaluated using following model selection criterium indicating a good fit: RMSEA < 0.05, CFI ≥ 0.95, TLI ≥ 0.95, and SRMR ≤ 0.08. There were four items which had negative correlation with the rest of the items. These four items were 10.1 (I would like to receive coaching, counselling and training to improve my understanding of patients with an immigrant background), 10.2 (It is important to me that the patients' cultural needs and personal values are taken into account in their treatment), 10.7 (If the patient does not understand Finnish well, I spend more time telling him about different treatment options) and 12.2 (I prefer to treat patients who have the same cultural background as me than patients who feel foreign to me). They did affect the Cronbach's alpha and average correlation negatively and were eventually left out from the factors. Also, visual inspection of different items showed that for these items the respondents gave much more lower values than for all the other variables.

The final model with a separate factor of 10.1 and 10.2 or without reversed items fitted the best. This leaves space to discuss that the data indicates negative attitudes towards people from diverse cultures. On the other hand, leaving these negatively correlated factors our from the CFA leads to lower RMSEA and SRMR, and higher CFI and TLI meaning that factors are better measured without these items. Also, a factor of these four items was evaluated and it did not give acceptable alpha value. Thus, they alone are not a good way to measure negative attitudes. We fitted

multiple regression model to predict each dependent (estimated using OLS): motivation, attitudes, skills, empathy, and knowledge. As they are factor scores extracted from CFA, they have zero mean, which is why we did not use intercept in our models. The stepwise AIC was used to evaluate multiple models with different predictors with forward-backward stepwise method. Standardized parameters were obtained by fitting the model on a standardized version of the dataset. Ninety five percent confidence Intervals (CIs) and p-values were computed using a Wald t-distribution approximation. Effect sizes were labelled following Field's (2013) recommendations.

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Ethical considerations: The research protocol was approved by the participating university of applied sciences. The permission to use the translated CCCHP was obtained from the Finnish Institute for Health and Welfare. The participants were informed of the purpose of the study and the voluntariness to answer. The survey was conducted anonymously through the Webropol system, meaning that no identifying information (such as an email address) would be visible from their response. They were informed that answering or not responding was not relevant to the progress of their studies and an article on the research was going to be published in a national or international scientific publication. Data was highly protected by the first author by personal passwords and will be deleted after publishing. (The Finnish National Board on Research Integrity TENK, 2025, GDPR, 2025, Tietosuojalaki, 2018.)

Results

The e-questionnaire was sent to 1123 nursing students, and 171 responses were received (a response rate of 15.2%). The answering was done anonymously.

Demographics of the students

The age of the participants ranged from 18-27 (40.9%) to 48 and over (7.6%). Nearly half of the participants (49%) had a previous vocational training as a practical nurse. The study year ranged from first year 36.9% to fourth year students 11.7%. Majority of the students (49.7%) had one to two study credits training on transcultural nursing. (Table 1.)

Fifteen percent of the students did not have any work experience on nursing, 22% had less than a year, 24% from one to three years, 10,5% from three to five years, 29,3% had over 5 years of working experience in nursing. The experiences on immigrant patients ranged from 20% who did not have any experience on immigrant patients to 6% who had experience on hundreds of immigrant patients. Twenty one percent of respondents had lived abroad, 18% had a family member of immigrant background, 36% had gained experience on immigration through friends, colleagues, family members, volunteer work or minority background and 41% did not have any experience on immigrants. (Table 1.)

Table 1. Student demographics (N=171).

Variable	n	%
Age		
18-27	70	40.9
28-37	43	25.2
38-47	45	26.3
48 and over	13	7.6

Stage of studies		
First year students	62	36.9
Second year students	44	25.7
Third year student	44	25.7
Fourth year students	20	11.7
Studies on transcultural nursing		
no studies	9	5.3
single days	32	18.7
1 credit points	21	12.3
2 cp	50	29.2
3 cp	35	20.5
4 cp and over	24	14
Work experience in nursing		
no working experience	25	15
less than a year	37	22
one to three years	41	24
three to five years	18	10.5
over five years	50	29.3
Experience on immigrant patients		
no experience	34	20
single experiences	38	22
several	56	33
tens of immigrant patients	33	19
hundreds of immigrant patients	10	6
Personal experience on immigration		
have lived abroad	35	21
family member of immigrant background	31	18
friends, colleagues or minority background	61	36

Cultural competency of the nursing students: The total mean CCC, i.e. cross-cultural competence score for nursing students was good 4 and standard deviation (SD) ±0,99. Students' Cross-Cultural Skills was high (mean 4.5, SD±0,77), Cross-Cultural Motivation/Curiosity was good (mean 4.2, SD±0,94), Cross-Cultural Emotions/Empathy good (4.2, SD± 1,03), Cross-Cultural Knowledge/Awareness good (mean 4 SD±1,01), Cross-Cultural Attitudes average (mean 3, SD±1,22 with the Likert scale of 1-5 (1= strongly disagree, 2= somewhat disagree, 3= neither agree nor disagree, 4= somewhat agree, 5= strongly agree). (Table 2.) Correlations between CCCHP items showed positive and negative associations. The following four questions had negative association: I would like to receive coaching, counselling and training to improve my understanding of patients with an immigrant background (10.1), It is important to me that the patients' cultural needs and personal values are taken into account in their treatment (10.2), If the patient does not understand Finnish well, I spend more time telling him about different treatment options (10.7), I prefer to treat patients who have the same cultural background as me than patients who feel foreign to me (12.2) (Figure 1).

Table 2. The dimensions of cultural competency of the nursing students.

	Mean	SD
Skills	4.5	±0.77
Motivation	4.2	±0.94
Empathy	4.2	±1.03
Knowledge	4	±1.01
Attitudes	3	±1.22
The Total CCC score	4	±0.99

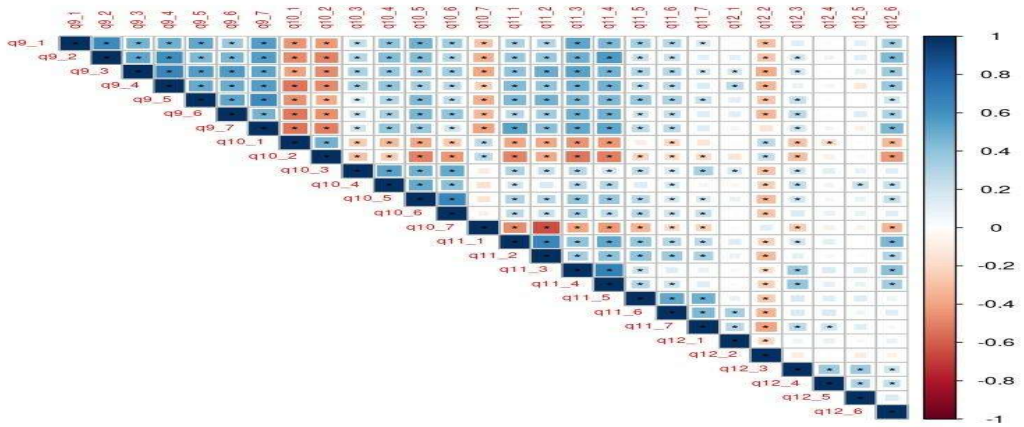

Figure I. Correlations between CCCHP items (blue equals positive and red equals negative association). The darkness of the colour represents the strength of the association (N=171)

The Correlation factors of cultural competence: When a student had a family member with an immigrant background, both the cross-cultural motivation (Pearson correlation 0.256) and attitudes (0.330), were positively associated. Other background variables did not show any positive correlation with motivation or attitudes. Positive correlations were low or very low throughout. If the student had no personal experiences with immigrants, there was a negative correlation on motivation (-0.316), attitude (-0.399) and empathy (-0.290) i.e. motivation, attitudes and empathy were lower if the student lacked personal experiences with immigrants. These negative correlations were also low. None of the background variables were positively correlated with skills, knowledge, and empathy. The results were normally distributed (Table 3).

The associated factors of cultural competence: The significant associated factors of cultural competence were working experience on nursing (p= 0.023) in attitudes and studies on transcultural nursing (p=0.015) in knowledge. There were no significant association in any other background variables. A p-value less than 0.05 is statistically significant. There were no significant factors in motivation, skills, or empathy. (Table 4).

Table 3. The Correlative factors of cultural competence.

Motivation	Pearson correlation
Age	-0.132
Stage of studies	-0.005
Studies on trans. nursing	0.077
Work experience on nursing	-0.093
Experience on immigrant patients	-0.031
Lived abroad	0.113

Family member is immigrant	0.256
No experience on immigrants	-0.316
Attitudes	
Age	-0.15
Stage of studies	0.018
Studies on trans. nursing	0.053
Work experience on nursing	-0.221
Experience on immigrant patients	-0.074
Lived abroad	0.194
Family member is immigrant	0.33
No experience on immigrants	-0.399
Empathy	
Age	-0.031
Stage of studies	0.034
Studies on trans. nursing	0.152
Work experience on nursing	-0.043
Experience on immigrant patients	0.063
Lived abroad	0.132
Family member is immigrant	0.199
No experience on immigrants	-0.29

Table 4. The Associated factors of cultural competence.

	Coefficients	p-value
Motivation		
Age	-0.27	0.156
Stage of studies	-0.003	0.849
Studies on trans. nursing	0.022	0.345
Work experience on nursing	-0.15	0.562
Experience on immigrant patients	-0.2	0.571
Lived abroad	-0.45	0.685
Family member is immigrant	0.118	0.302
Attitudes		
Age	-0.42	0.175
Stage of studies	0.007	0.79
Studies on trans. nursing	0.32	0.393
Work experience on nursing	-0.98	0.023*
Experience on immigrant patients	-0.37	0.519
Lived abroad	0.33	0.856
Family member is immigrant	0.253	0.173
Skills		
Age	0.031	0.084
Stage of studies	0.022	0.182
Studies on trans. nursing	-0.22	0.3

Work experience on nursing	0.044	0.887
Experience on immigrant patients	-0.12	0.72
Lived abroad	0	0.997
Family member is immigrant	-0.084	0.434
Empathy		
Age	-0.017	0.556
Stage of studies	-0.002	0.942
Studies on trans. nursing	0.063	0.068
Work experience on nursing	-0.05	0.206
Experience on immigrant patients	0.022	0.685
Lived abroad	-0.126	0.45
Family member is immigrant	-0.022	0.896
Knowledge		
Age	-0.03	0.28
Stage of studies	-0.012	0.614
Studies on trans. nursing	0.081	0.015*
Work experience on nursing	-0.029	0.444
Experience on immigrant patients	-0.035	0.503
Lived abroad	-0.196	0.225
Family member is immigrant	0.046	0.778

*p<0.05

Table 5: The Associated factors of cultural competence.

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Discussion

This study aimed to investigate the level of cultural competence of nursing students and the factors that were associated to it. Nursing students scored higher in skills (mean= 4.5 SD±0,77), motivation (mean= 4.2 SD±0.94) and emotions (mean 4.2 SD±1.03) as well as in the total mean CCC score (mean=4 SD±0.99). Previous study revealed the total mean CCC score on Finnish nurses was 3.27 (SD±0.32). Nurses reported CCC skills (mean=3.89 SD± 0.69), motivation/curiosity (mean=3.78, SD± 0.79, attitudes (mean=3.31, SD± 0.74) and emotions/empathy (mean=2.09, SD± 0.80) (Langari et al., 2024). In the study of Repo et al. the level of the cultural competence of graduating nursing students was moderate, and most students had studied multicultural nursing (Repo H et al., 2017). Cultural competence is therefore developing in the positive direction when comparing the results of this study to previous ones. As the number of immigrants grows, the exposure to diverse cultures correspondingly increases. The training and education also aim to better meet the needs of practical working life in this regard and to increase the teaching of transcultural nursing.

Personal experience with immigrants explained a higher result in terms of motivation and attitudes. The lack of experience with immigrants was also reflected in lower motivation, attitudes, and empathy. In previous studies female sex, older age, more working experience, employment in the private sector, and higher self-rated competence for working in a multicultural environment have been positively associated with higher integrated care competencies (Langari et al., 2024). Similarly, in the study by Kaihlanen, meeting customers and colleagues from diverse cultures was positively associated with the motivation dimension. Among respondents who met with clients from diverse cultures at least monthly and at home, motivation was higher compared to those who rarely or never encountered clients from different cultures. Respondents who had coworkers from diverse cultures showed higher motivation compared to those who did not have coworkers from different cultures. (Kaihlanen et al., 2019b). Repo et al. found out that minority background, frequency of interacting with diverse cultures, linguistic skills and exchange studies were positively associated to higher cultural competence. (Repo et al., 2017.) Studies abroad have been stated a beneficial strategy for the development of cultural competence of future nurses (Kokko 2011). Similarly, the “cultural knowledge” has been better for those students who have lived abroad for more than six months compared to those who have not (Licen et al., 2023).

In the previous studies professionals who participated in training on multiculturalism had higher cultural competence than those who had not participated in the training. Education that increases the awareness of the health care professionals on their own cultural features was perceived as useful and thought-provoking. The increased awareness might facilitate the communication between healthcare professionals and patients, which is a crucial component of quality healthcare. (Kaihlanen et al., 2019b.) Hamed has also indicated that regular contacts with colleagues and clients from diverse cultural backgrounds can increase the motivation of healthcare professionals to meet representatives of different cultures and consider their special needs (Hamed, 2022).

Some of the students did not want to increase their knowledge on cultures, did not see the importance on taking into account patients´ cultural needs or values, did not want to spend more time on explaining about treatment options for those who couldn't understand Finnish well and preferred to treat patients with the same cultural background as themselves. These results are significant exceptions overall. They do not embody cultural competence, on the contrary. They indicate that, in the opinion of some students, people from another culture should be treated in the same way as the native population, even if the needs and culturally sensitive approach require otherwise. Similarly, they possessed reluctance to care for people from different cultural background. These observations require special attention in teaching and in the healthcare organizations. In the cover letter of the questionnaire, it was mentioned that their answer is valuable because of the development of cultural competence teaching and cultural-oriented care. Therefore, the results might be positively emphasized and the students who think most negatively of the research topic would not answer.

Hamed et al. have concluded that racialized minority healthcare staff experience racism in their workplace from healthcare users and colleagues and they lack organizational support in managing racism (Hamed et al., 2022). Furthermore, non-white nurses intended to leave the job at a higher rate than white nurses. Non-white nurses reported negative racial climates, multiple racial microaggression experiences, and high job dissatisfaction and emotional distress. Workplace racism had significant individual effects on intent to leave. In efforts to retain nurses of immigrant background in hospitals, there is an urgent need to mitigate workplace racism. (Thomas-Hawkins et al., 2022.) Schools of nursing have a moral and professional responsibility to ensure nurses are better equipped to include anti-racism and equity in their practice. The urgency to address racism in practice and education is reverberating globally. (Boakye et al., 2024.)

Limitations: The small sample size affected the small number of correlated and explanatory factors. However, the sample size was large enough to provide statistically significant correlations for almost all of the variables. Gender, internships abroad and possibly language skills could also have been added to the background variables. This voluntary recruitment method might introduce minor selection bias and affect both the statistical representativeness of the sample, and the responses provided. The first three variables of the in Cross-cultural Knowledge Dimension did not correlate much with the other variables. That dimension was therefore of no statistical significance. However, this gives a clue to an independent factor.

Conclusion: It is recommended to include interaction with people from immigrant backgrounds in nursing education. Internships abroad would also make it possible to learn about encountering cultures in a versatile way. The curricula of nursing degrees should include a course of transcultural nursing with special attention on promoting anti-racist cultural competence.

In the future, the assessment of cultural competence should be carried out with a larger sample size to see the connections of other background variables to the dimensions of cultural competence of nursing students. The CCCHP instrument could be improved by adding a dimension concerning racist variables.

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References

Abdulrehman R. (2024). Developing anti-racist cultural competence. Hogrefe. https://doi.org/10.1027/00515-000

Antón-Solanas I., Tambo-Lizalde E., Hamam-Alcober N., Vanceulebroeck V., Dehaes S., Kalkan I., Kömürcü N., Coelho M., Coelho T., Casa Nova A., Cordeiro R., Sagarra-Romero L., Subirón-Valera A.B., Huércanos-Esparza I. (2021). Nursing students' experience of learning cultural competence PLoS One. 17;16(12) doi: 10.1371/journal.pone.0259802

Bae K.E. & Jeong G.H. (2023). Effect of a transcultural nursing course on improving the cultural competency of nursing graduate students in Korea: a before-and after study. J Educ Eval Health Prof. 20(35). doi: 10.3352/jeehp.2023.20.35.

Berhanu R.D., Golja E.A., Gudeta T.F., Feyisa J.W., Rikitu D.H. & Bayane Y.B. (2024). Cultural sensitivity and associated factors among nurses in southwest Ethiopia: a cross-sectional study. BMC Nursing 23 (182). https://doi.org/10.1186/s12912-024-01838-8

Bernhard G., Knibbe R.A., von Wolff A., Dingoyan D., Schulz H., Möskö M. (2015). Development and psychometric evaluation of an instrument to assess cross-cultural competence of heath care professionals (CCCHP). Plos One, 10 (12). https://doi:10.1371/journal.pone.0144049

Berşe S., Dirgar E., Tosun B., Tanriverdi D., Atay E. (2024). Cultural humility among nursing students in a multicultural setting. Work 79(4):1785-1793.

Boakye P.N., Prendergast N., Bailey A. (2024). Challenging anti-racism in nursing education: A moral and professional call to action. Nurse Educ. Today 141, 1—5.

Brottman M., Char D., Hattori R., Heeb R., Taff S. (2020). Toward Cultural Competency in Health Care: A Scoping Review of the Diversity and Inclusion Education Literature. Acad. Med. 95 (5), 803—813.

Cai D., He W., Klug D. (2021). Cultural competence among nurses and its influencing factors: A cross-sectional study Nurs Health Sci 23(2):411—418. doi: 10.1111/nhs.12821.

Campinha-Bacote J. (2003). The Process of cultural competence in the delivery of health care services. Cincinnati: Transcultural C.A.R.E Associates.

Červený M., Kratochvílová I., Hellerová H., Tóthová V. (2022). Methods of increasing cultural competence in nurses working in clinical practice: A scoping review of literature 2011–2021. Front Psychol. 24;13:936181, 1-9.

European Social Survey (2023). Available at: https://www.europeansocialsurvey.org/

European Union Agency for Fundamental Rights (2018). Second European Union Minorities and Discrimination Survey Being Black in the EU. Luxembourg: Publications Office of the European Union. Available at: https://fra.europa.eu/sites/default/files/fra_uploads/fra-2018-being-black-in-the-eu_en.pdf

Eurostat. (2025). Statistics explained. (read 22.3.2025). Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_population_diversity_by_citizenship_and_country_of_birth#:~:text=44.7%20million%20people%20(9.9%25),born%20in%20another%20EU%20country

Finnish Immigration Services. (2024). (Read 24.2.2024.) Available at: https://migri.fi/

The Finnish National Board on Research Integrity TENK. (2025). Available at: https://tenk.fi/en

GDPR. (2025). Available at: https://gdpr.eu/.

Hamed S., Bradby H., Ahlberg B. M., Thapar-Björkert S. (2022). Racism in healthcare: a scoping review. BMC Pub. Health 22, 988. https://doi:10.1186/s12889-022-13122-y

Hantke S., St. Denis V., Graham H. (2022). Racism and antiracism in nursing education: confronting the problem of whiteness. BMC Nurs. 21(146),1–9.

Hietapakka L., Elovainio M., Wesolowska K., Aalto A.-M., Kaihlanen A.-M., Sinervo T., Heponiemi T. (2019). Testing the psychometric properties of the Finnish version of the cross-cultural competence instrument of healthcare professionals (CCCHP). BMC Health Serv. Res. 19:294. https://doi.org/10.1186/s12913-019-4105-2

International Organization for Migration. (2015). How the world views migration. Geneva: International Organization for Migration. Available at: https://publications.iom.int/books/how-world-views-migration

Jaworski M., Cieślak I., Panczyk M., Barzykowski K., Majda A., Theofanidis D., Gotlib-Małkowska J. (2024). Cultural intelligence and multicultural personality of novice nurses in the midst of the refugee crisis in Poland – a preliminary report. Pielegniarstwo XXI wieku / Nursing in the 21st Century Volume 23(2). DOI: https://doi.org/10.2478/pielxxiw-2024-0020

Jongen C., McCalman J., Bainbridge R. (2018). Health workforce cultural competency interventions: a systematic scoping review. BMC Health Serv. Res. 18 (232). https://doi.org/10.1186/s12913-018-3001-5

Kaihlanen A.-M., Hietapakka L., Heponiemi T. (2019a). Increasing cultural awareness: qualitative study of nurses' perceptions about cultural competence training. BMC Nurs. 18 (1). https://doi.org/10.1186/s12912-019-0363-x

Kaihlanen A.-M., Hietapakka L., Aalto A-M., Lehtoaro S., Heponiemi T. (2019b). The cultural competence of social and healthcare professionals and related factors. Social policy (Sosiaali- ja terveydenhuollon ammattilaisten kulttuurinen kompetenssi ja siihen yhteydessä olevat tekijät. Yhteiskuntapolitiikka) 84 (4), 369–379. Available at: https://www.julkari.fi/bitstream/handle/10024/138588/YP1904_Kaihlanenym.pdf

Kemppainen L., Kemppainen T., Skogberg N., Kuusio H., Koponen P. (2018). Immigrants' use of health care in their country of origin: the role of social integration, discrimination and the parallel use of health care systems. Scand. J. of Caring Sci. 32 (2), 698—706.

Kieseppä V., Velazquez RG., Vehko T., Kuusio H. (2022). Satisfaction with access to health services among foreign-born population in Finland: a survey-based study. BMC. Health Serv. Res. 22 (781), 2—11.

Kokko R. (2011). Future nurses' cultural competencies: what are their learning experiences during exchange

and studies abroad? A systematic literature review. J. Nurs. Manag. 19, 673—682.

Koponen P., Rask S., Skogsberg N., Castaneda A., Manderbacka K., Suvisaari J., Kuusio H., Laatikainen T., Keskimäki I., Koskinen S. (2016). Immigrants living permanently in Finland use health services variably. Medical Journal (Suomessa vakituisesti asuvat maahanmuuttajat käyttävät vaihtelevasti terveyspalveluja. Lääkärilehti) 12–13, 907—914.

Kuusio H., Mäkipää L., Klemettilä K-L., Nykänen S., Kytö S., Lilja E. (2023). National research on the health, well-being, and services of those born abroad – MultiFinland 2022 study: Key findings to support decision-making. A summary of the research. 54. National Institute for Health and Welfare. (Kansallinen tutkimus ulkomailla syntyneiden terveydestä, hyvinvoinnista ja palveluista – MoniSuomi 2022 -tutkimus: Keskeisiä havaintoja päätöksenteon tueksi. Tutkimuksesta tiiviisti 54. Terveyden ja hyvinvoinnin laitos).

Kuusio H., Velazquez RG., Mäkipää L., Klemettilä K-L., Castaneda A., Lilja E. (2023). National study on the health, well-being, and services of people born abroad – MultiFinland 2022 study, statistical report 36. Finnish Institute for Health and Welfare. (Kansallinen tutkimus ulkomailla syntyneiden terveydestä, hyvinvoinnista ja palveluista – MoniSuomi 2022 -tutkimus, tilastoraportti 36. Terveyden ja hyvinvoinnin laitos).

Langari MNM., Lindström J., Heponiemi T., Kaihlanen A-M., Hietapakka L., Miri HH., Turunen H. (2024). Integrated care competencies and their association with cross-cultural competence among registered nurses: a cross-sectional questionnaire survey. Nurs. Open 11 (1), 1—13. https://doi:10.1002/nop2.2062.

Leininger MM. (1991). Culture care diversity & universality: a theory of nursing. New York: National League for Nursing Press.

Lin C-J., Lee C-K., Huang M-C. (2017). Cultural Competence of Healthcare Providers: A Systematic Review of Assessment Instruments. J. Nurs. Res. 25 (3), 174—186.

Ličen S., Karnjuš I., Prosen M. (2021). Measuring Cultural Awareness Among Slovene Nursing Student: A Cross-Sectional Study. J Transcult Nurs 32(1):77—85.

Licen S., Prosen M. (2023). The development of cultural competences in nursing students and their significance in shaping the future work environment: a pilot study. BMC Med. Educ. 23 (819), 1—9.

Migration Observatory. (2025). UK Public Opinion toward Immigration: Overall Attitudes and Level of Concern. University of Oxford. Available at: https://migrationobservatory.ox.ac.uk/resources/briefings/uk-public-opinion-toward-immigration-overall-attitudes-and-level-of-concern/

.

Mula T., Azuri P., Baumann S.L. (2023). Nursing Cultural Competence in Israel: Does Practice Make It Better? Nurs Sci Q 36(1):78–84. doi: 10.1177/08943184221131968.

Odzakovic E., Huus K., Ahlberg B.M., Bradby H., Hamed S., Thaper-Björkert S., Björk M. (2023). Discussing racism in healthcare: A qualitative study of reflections by graduate nursing students. Nurs. Open. 24;10 (6):3677–3686.

Papadopoulos I., Tilki M., Lees S. (2004). Promoting cultural competence in health care through a research based intervention in the UK. Div. in Health and Soc. Care 10 (1– 2), 107–116. Available at: https://repository.mdx.ac.uk/item/80qx9

Paric M., Kaihlanen AM., Heponiemi T., Czabanowska K. (2021). Nurse teacher's perceptions on teaching cultural competence to students in Finland: a descriptive qualitative study. Nurse Educ. Today 99, 104787. https://doi:10.1016/j.nedt.2021.104787.

Pattillo M., Stieglitz S., Angoumis K. & Gottlieb N. (2023). Racism against racialized migrants in healthcare in Europe: a scoping review. International Journal for Equity in Health volume 22(201) https://doi.org/10.1186/s12939-023-02014-1

Repo H., Vahlberg, T., Salminen L., Papadopoulos I., Leino-Kilpi H. (2017). The Cultural Competence of Graduating Nursing Students. J. Transcult. Nurs. 28 (1), 98—107.

Shirai C., Nonaka D., Kobabyashi J. (2024). Evaluating the cross-cultural competence instrument for healthcare professionals (CCCHP) among nurses in Okinawa, Japan. BMC Health Serv. Res. 24 (369), 2—16.

Statistics. (2022). Väestörakenne. (read 24.2.2024) Available at: https://stat.fi/tilasto/vaerak Tietosuojalaki 1050/2018. (2018).

Thomas-Hawkins C, Flynn L, Zha P, Ando S. (2022). The effects of race and workplace racism on nurses' intent to leave the job: The mediating roles of job dissatisfaction and emotional distress. Nurs. Out. 70 (4), 590—600.

Tosun B., Yılmaz E.B., Dirgar E., Şahin E.B., Hatipoğlu K.P. & Yava A. (2024). Evaluating the effectiveness of a new curriculum for transcultural nursing education: a mixed-method study. BMC Nursing volume 23(813). https://doi.org/10.1186/s12912-024-02450-6

Truong M., Paradies Y., Priest N. (2014). Interventions to improve cultural competency in healthcare: a systematic review of reviews. BMC Heath Serv. Res. 14 (99), 1—17.

Yadollahi S., Ebadi A, Asadizaker M. (2020). Measuring Cultural Competence in Nursing: A Review Study. JCCNC 6 (3), 203—212.

Zalewska-Puchała J., Bodys-Cupak I., Majda A. (2021). Attitudes of Polish Nurses Toward Selected National Groups. J Transcult Nurs 32(2):137—144.